

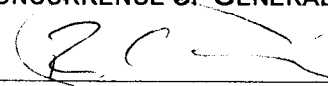


To: Public Works and Transportation Committee **Date:** February 2, 2006
 From: Robert Gonzalez, P.Eng. **File:** 10-6650-02/2006-Vol 01
 Director, Engineering
 Re: **Richmond Long Range Drinking Water Management Plan: Volunteer Water
 Meter Program Update**

Staff Recommendation

That the Richmond Long Range Drinking Water Management Plan: Richmond Water Meter Program Update report from the Director of Engineering be received for information.

Robert Gonzalez, P.Eng.
Director, Engineering
(4150)

FOR ORIGINATING DIVISION USE ONLY		
CONCURRENCE OF GENERAL MANAGER		
 (ACTING)		
REVIEWED BY TAG	YES <input checked="" type="checkbox"/> BW	NO <input type="checkbox"/>
REVIEWED BY CAO	YES <input checked="" type="checkbox"/> (61)	NO <input type="checkbox"/>

Staff Report

Origin

On December 8, 2003, City Council adopted Bylaw 7620, amending the City's Waterworks and Water Rates Bylaw. The amendment includes provisions that allow the City to bill residential water customers based on a metered rate and is in alignment with the City's long-term water management strategy. As committed by staff, the purpose of this report is to serve as the annual update to Council on the progress of the water metering program.

Findings Of Fact

Volunteer Water Meter Program

The City is entering its third and final year of a three-year program for voluntary water metering of single family and duplex residential units. Since its launch in February 23, 2004, 3,927 homes volunteered for the program as of December 31, 2005, which represents 13% of the total single family and duplex homes in Richmond. The allocated budgets for 2004 and 2005 have been maximized and the program is on target to remain within budget for 2006.

In both years, the projected number of installations has been exceeded by as much as 12% (2,000 projected but 2,248 installed in 2004, and 1,500 projected but 1,679 installed in 2005). The projected number of volunteers is expected to be less for 2006 (estimated at 750) because the balance of homes may be more substantial consumers of water and may be sceptical that metering could offer savings. Conservation devices were requested and installed in 1267 and 981 homes for 2004 and 2005, respectively. Typically, a water system audit used to identify opportunities to reduce water consumption in the home is offered to volunteers requesting the installation of conservation devices. The City is encouraging more conversions to water metering by raising awareness of the benefits of water metering through an Open House to be held on March 30, 2006, and in addition a mail out with the water utility bill.

For 2004 and 2005, 89% and 80% of the volunteers realized savings, respectively. The reduction in the number of volunteers that experienced a savings in 2005 is due to higher water consumption homes volunteering in the second year. In addition, the program helped detect 100 leaks in 2004 and more than 140 in 2005.

Mandatory Water Metering

All new construction of residential single family and duplex homes are currently required to have a water meter installed, as per Bylaw 5637, Section 3A. City initiated capital improvement works for water main upgrade and replacement will also require existing serviced homes to be metered. For 2006, this bylaw requirement will be extended to all new multi-family homes such as townhouses, apartments, and condominiums, which are included candidates under the same bylaw section listed above. The total number of mandatory meters as at December 31, 2005 is 3,283, which represents 11% of the total single family and duplex homes in Richmond.

In 2005, approximately 67% of the mandatory-metered homes saved money (no information was available for 2004) over the flat rate.

The Volunteer and Mandatory Water Meter Programs has received an estimated 260 complaints in the last two years. Most of the complaints were in regards to leak detection issues, thermal expansion problems, billing concerns and installation variances. This represents 3.6% of the total number of metered residents. Staff has since resolved the thermal expansion problem by removing the requirement to install the dual-check valve for older homes.

Regional Benefits

Through the reduction in leaks and better conservation practices, Richmond realized a 2.3% reduction in overall consumption in 2005 with almost 900,000 m³ of water conserved. It is through programs such as Water Meters that the average per capita daily consumption of water is steadily decreasing according to the GVRD. By reducing per capita water consumption, infrastructure upgrades regionally and within Richmond can be deferred, and prolong the life of our water infrastructure.

Next Steps

This is the final year of Richmond's Volunteer Water Meter Program. The program, based on a user pay system, has been well received and used as a model by other local communities.

With the anticipated continued escalation in regional water supply rates, staff foresee a steady demand for equity through user pay. Through the Capital Program process, staff will be recommending that another three year volunteer water meter program be established, including an annual commitment of \$750,000 from the Water Utility.

Financial Impact

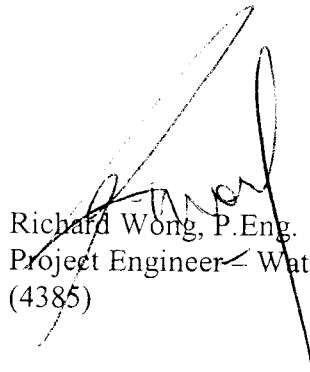
None at this time.

Conclusion

The Volunteer Water Metering Program initiated in 2003 has been very successful in detecting leaks, providing cost control to residential consumers, advocating equitable cost allocation, conserving our limited resource and helping volunteers save money. With only 24% of Richmond's single family and duplex homes metered, there is still a substantial amount of homes un-metered. Extending the voluntary and maintaining the mandatory water meter programs will help the City reach its goals over a long term planning horizon without incurring substantive financial commitments.



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