



POLICY REPORT

Report Date: June 13, 2019
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VanRIMS No.: 08-2000-20
Meeting Date: July 10, 2019

TO: Standing Committee on Policy and Strategic Priorities
FROM: General Manager of Engineering Services
SUBJECT: Water Works By-law Amendment to Residential Metering

RECOMMENDATION

THAT Council approve amendments to the Water Works By-law 4848 requiring the installation of water meters on properties that are 0.4 acres or greater, a change from the current 0.5 acres threshold.

REPORT SUMMARY

The City currently requires water meters for all new homes and major renovations, as well as existing properties greater than 0.5 acres in area. Multi-family, industrial, institutional, and commercial properties are all currently metered. This report recommends lowering the property-size threshold for water meter installations on existing single family homes greater than 0.5 acres to greater than 0.4 acres. Consequently these existing properties would transition from an annual flat rate to a metered volumetric rate.

Analysis has shown that unmetered properties greater than 0.4 acres in area consume considerably more water than average sized properties. Lowering the property size threshold for a water meter will help recover the cost of providing water in support of equitable customer billing, and promote behavioural changes towards water conservation.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

In December 2011, Council adopted the 2011-2014 Greenest City Clean Water Work Plan and approved requirement of new single family and duplex homes to be metered.

In December 2011, Council approved By-law revisions requiring residential water metering for all new single family and duplex properties.

In December 2011, Council approved transition from a uniform volumetric rate for commercial and residential metered customers to a seasonal rate consisting of two different rates for low and high seasons.

In July 2011, Council updated the prohibitions on wasting water in Water Works By-law No. 4848.

In July 2011, the Greenest City Action Plan was adopted by Council.

In January 2011, Council adopted 14 Greenest City targets as Council policy, including a target to reduce per capita water consumption by 33% over 2006 levels by 2020.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The City Manager recommends approval of the foregoing.

REPORT

Background/Context

The City currently meters all industrial, commercial, institutional, and multi-family customers. In addition, water meters are required on all new or renovated single family/duplex homes and on residential properties greater than 0.5 acres in area. Together, these customers account for 62% of Vancouver's total water consumption; the remaining 38% is consumed by approximately 77,000 unmetered residential homes.

Metering all remaining residential homes would require a major financial investment estimated at \$300 M (in 2019 dollars). Since 2011, the City has pursued a targeted metering approach by installing meters during new construction or major renovations, and ensuring that all properties greater than 0.5 acres have meters. These lots typically have large landscaped areas that require more irrigation in summer months than average-sized lots.

Strategic Analysis

Requiring water meters on all properties greater than 0.4 acres will recover the cost of providing water to this category-size of properties in support of equitable customer billing and promoting water conservation behavioural changes, including the reduction of overall water loss.

Recover the Cost of Providing Water

The City water system operates as a Utility with costs recovered through rates from metered and unmetered customers, and fees. Metered customers pay a water services charge and seasonal volumetric rates, while unmetered customers pay an annual flat rate service charge. Analysis in Figure 1 below compares the annual flat rate service charge for a typical unmetered residential property (red line), against the average cost to provide water to a property within each category (blue bars). It illustrates that unmetered properties greater than 0.4 acres consume considerably more water than smaller sized properties, yet pay the same annual flat rate, creating a situation where other customers are subsidizing water consumed by these larger properties. Ultimately, installation of water meters on these existing properties aims to address this inequity, and have large properties pay for what they use.

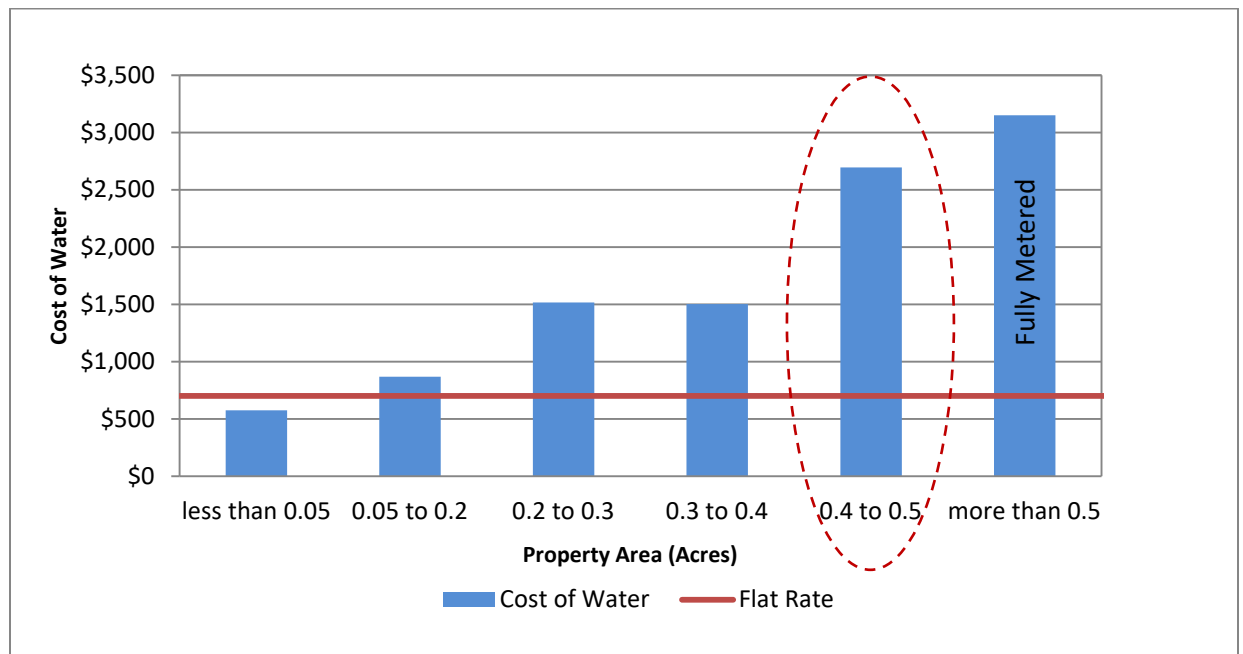


Figure 1 — Cost of providing water to various residential property sizes

Implications/Related Issues/Risk

Financial

The cost and installation of each water meter assembly averages \$3,900/meter, for an estimated total cost of \$975,000 in new meters, boxes and piping, required to comply with this bylaw change of approximately 250 meters to be installed on existing properties starting in the first quarter of 2020.

The cost of the meters will be funded through the New Water Meter Program in the 2019-2022 Capital Plan and budget will be requested during the 2020 Annual Capital Budget Process for the 250 meters. Operational costs for meter reading will come from the existing Automatic Meter Reading Program.

CONCLUSION

Analysis has shown that unmetered properties greater than 0.4 acres in area consume considerably more water than average sized properties, yet pay an annual flat rate service charge that does not adequately recover the costs of water consumed by these properties. Staff recommend lowering the threshold for installation of water meters on properties 0.4 acres or greater, in efforts to recover the cost of providing water in support of equitable customer billing and promoting behavioural changes towards water conservation.

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Draft By-law to amend Water Works By-law No. 4848
regarding required metered service

Note: A by-law will be prepared generally in accordance with the provision listed below, subject to change and refinement prior to posting.

1. In subsection 2.1(c), Council strikes out “new or existing premises that are .5 acres or more in area” and substitutes “new or existing premises that are .4 acres or more in area”.