

From: "Mochrie, Paul" <Paul.Mochrie@vancouver.ca>

To: ["Direct to Mayor and Council"](#)

Date: 5/23/2025 3:40:31 PM

Subject: Council Memo - Effective Water Use in the City of Vancouver - RTS 17801

Attachments: ENG - Memo - Effective Water Use in the City of Vancouver - RTS 17801 - Response to Questions.pdf

Dear Mayor and Council,

Please see the attached memo from Lon LaClaire. A short summary of the memo is as follows:

- This memo provides responses to questions raised at the April 16, 2025 Standing Committee on City Finance and Services regarding Report 4, *Effective Water Use in the City of Vancouver*.
- Analysis shows that most single-detached homes switching from flat rate to metered billing would see lower annual costs—approximately \$627 compared to the current \$867 flat rate—while gaining more control over water use.
- In Vancouver, 17% of single-detached and duplex homes are metered, while all other sectors fully metered. Metering captures 58% of the city's total water use which is above the regional average.
- Vancouver's gross per capita water use is 387 L/day, slightly below the regional average of 390 L/day.
- Forecasts project increasing single-family and duplex metering coverage to 46% by 2030, with \$47.1 million investment in the 2027–2030 Capital Plan; expediting universal metering by 2035 would require a 75% increase in funding for the 2027–2030 period (\$82.5 million), along with higher installation rates, creating trade-offs in cost, implementation pace, and infrastructure lifecycle management.

If you have any questions, please feel free to contact Lon LaClaire at 604-873-7336 or lon.laclaire@vancouver.ca.

Best,

Paul

Paul Mochrie (he/him)

City Manager

City of Vancouver

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The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the x m k y m (Musqueam), S wxwú7mesh (Squamish), and s lilw ta (Tsleil-Waututh) Nations.

MEMORANDUM

May 23, 2025

TO: Mayor and Council

CC: Paul Mochrie, City Manager
Armin Amrolia, Deputy City Manager
Karen Levitt, Deputy City Manager
Sandra Singh, Deputy City Manager
Katrina Leckovic, City Clerk
Maria Pontikis, Chief Communications Officer, CEC
Teresa Jong, Administration Services Manager, City Manager's Office
Mellisa Morphy, Director of Policy, Mayor's Office
Trevor Ford, Chief of Staff, Mayor's Office

FROM: Lon LaClaire
General Manager, Engineering Services

SUBJECT: Effective Water Use in the City of Vancouver – Response to April 16, 2025,
Council Questions

RTS #: 17801

This memo provides response to questions raised at the April 16, 2025, Standing Committee on City Finance and Services regarding Report 4, [“Effective Water Use in the City of Vancouver”](#).

Affordability Impacts of Transitioning from Flat Rate to Metered Water Billing

Metered customers pay a fixed service charge plus a volumetric fee based on actual water use, while unmetered properties pay a flat annual rate, regardless of consumption. In 2025, the flat rate for a single-detached home is \$867. Water use data from City of Vancouver pilot metering projects suggest that flat rate households of similar age switching to metered billing would incur average annual charges of approximately \$627 at 2025 metered rates¹.

Based on water consumption trends and rate analysis, Council approved the 2025 [“Annual Review of Water Rates and Water Works By-law Amendments”](#), which holds flat rates steady while raising metered rates by four per cent annually to 2030. This strategy enhances fairness between flat rate and metered customers with comparable usage and supports full cost recovery as we transition to a universally metered water utility.

¹ Actual annual metered water charges are influenced by variables including household occupancy, efficiency of indoor water fixtures, indoor and outdoor water use and private side leak management.

Switching from flat rates to metered billing would typically lower costs for most households while giving residents greater insight and control over their water use. Studies show that metered customers use, on average, 20 per cent less water, through conservation and leak detection. Metering creates a more equitable system by ensuring customers pay based on actual usage rather than a one-size-fits-all rate and can also help reduce sewer utility charges, which are linked to water consumption.

Status of Metering in Metro Vancouver

Approximately 17 per cent of Vancouver's single-detached and duplex properties are metered, while all other remaining property types in Vancouver are 100 per cent metered. These metered properties capture 58 per cent of Vancouver's total water consumption annually, which is above the average compared with other member municipalities across the region (Appendix 1).

According to Metro Vancouver (Appendix 2), residential metering rates for single-family homes vary widely. Seven municipalities have near-universal coverage (96-100%), while nine are in the preliminary stages (0-5%). Vancouver, along with two other municipalities, falls within the lower mid-range, with single-family metering coverage between six and 35 per cent.

City of Vancouver Water Use Compared to Regional Municipalities

Metro Vancouver reports regional gross per capita water demand at 390 L (2025) based on member supplied data, targeting a reduction to 300 L/cap/day by 2055. Vancouver's gross per capita water consumption is slightly below the regional average, at 387 L/cap/day, and includes the wide range of industrial, commercial, and institutional properties in Vancouver.

Pace of Expanded Water Meter Coverage

In alignment with the 10 Year Capital Strategic Outlook, staff forecasts for the 2027-2030 Capital Plan include \$47.1 million to install an additional 14,000 residential meters. Combined with new meters anticipated through development (approximately 1,000 meters installed annually), this investment would increase metering coverage for single-detached and duplex homes from 17 to 46 per cent by the end of 2030. To achieve full meter coverage by 2040, future Capital Plans from 2031 to 2040 would require an additional total investment of \$140.5 million, supporting an average of 3,425 meters installed annually from 2027 onward.

To expedite this timeline further and achieve universal metering by 2035, approximately 5,900 installations per year would be required, necessitating \$82.5 million in funding for the 2027-2030 Capital Plan; a 75 per cent increase compared to a 2040 timeline. While this accelerated approach advances equity and conservation goals, it would also entail higher upfront capital costs, increased pressure on supply chains, reduced support from development contributions, and concentrated lifecycle renewal needs as meters reach end-of-life simultaneously.

Please contact me directly if you have any questions.



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APPENDIX 1: Percentage of Total Water Consumption Metered by Member Jurisdiction

Current Metering Rate* Range	Member Jurisdiction	Current Metering Rate¹ 2021 (A)
0 to 25%	City of Port Coquitlam	16%
	City of Coquitlam	16%
	Port Moody	23% ²
	Township of Langley	24%
	City of Burnaby	24%
	District of North Vancouver	25%
26% to 50%	City of Maple Ridge	32%
	City of North Vancouver	32%
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	City of Pitt Meadows	45%
51% to 75%	City of Delta	56%
	City of Vancouver	58%
	City of Surrey	61%
	City of Richmond	69%
	City of New Westminster	70%
76% to 100%	UEL/UBC	82%
	City of Langley	86%
	District of West Vancouver	94%
	Village of Anmore	100%
	Village of Belcarra	100%

Percentage of total water consumption metered as provided by Metro Vancouver member jurisdictions.
Source: Metro Vancouver Water Use by Sector Report, 2024.

APPENDIX 2: Residential Metering Rate by Member Jurisdiction

Member Jurisdiction	Estimated Percentage of Metered Connections by Sector in 2021					
	Single-Family	Multi-Family	Commercial	Institutional	Industrial	Agricultural
Anmore ¹	96% - 100%	N/A	N/A	96% - 100%	N/A	N/A
Belcarra ¹	96% - 100%	N/A	N/A	N/A	N/A	N/A
Burnaby	0% - 5%	0% - 5%	96% - 100%	96% - 100%	96% - 100%	96% - 100%
Coquitlam	0% - 5%	0% - 5%	96% - 100%	96% - 100%	96% - 100%	96% - 100%
Delta	6% - 35%	0% - 5%	66% - 95%	66% - 95%	66% - 95%	66% - 95%
City of Langley	96% - 100%	96% - 100%	96% - 100%	96% - 100%	96% - 100%	96% - 100%
Township of Langley	0% - 5%	0% - 5%	96% - 100%	96% - 100%	96% - 100%	96% - 100%
Maple Ridge	6% - 35%	36% - 65%	66% - 95%	36% - 65%	66% - 95%	36% - 65%
New Westminster	0% - 5%	96% - 100%	96% - 100%	96% - 100%	96% - 100%	N/A
City of North Vancouver	0% - 5%	0% - 5%	96% - 100%	N/A	96% - 100%	N/A
District of North Vancouver	0% - 5%	6% - 35%	36% - 65%	N/A	N/A	N/A
Pitt Meadows ²	0% - 5%	0% - 5%	66% - 95%	36% - 65%	96% - 100%	96% - 100%
Port Coquitlam	0% - 5%	0% - 5%	96% - 100%	96% - 100%	96% - 100%	96% - 100%
Port Moody	0% - 5%	66% - 95%	36% - 65%	96% - 100%	96% - 100%	N/A
Richmond	96% - 100%	36% - 65%	96% - 100%	96% - 100%	96% - 100%	96% - 100%
Surrey ³	66% - 95%	36% - 65%	96% - 100%	96% - 100%	66% - 95%	66% - 95%
sca̓waθan məsteyax ^w	N/A ⁴	N/A ⁴	96% - 100%	N/A	N/A	N/A
University Endowment Lands	96% - 100%	96% - 100%	96% - 100%	96% - 100%	N/A	N/A
Vancouver	6% - 35%	96% - 100%	96% - 100%	96% - 100%	96% - 100%	96% - 100%
West Vancouver	96% - 100%	96% - 100%	96% - 100%	N/A	N/A	N/A

¹ Single-family residential homes in the Villages of Anmore and Belcarra are mostly metered but still charged a flat rate (not based on consumption).

² All multi-family residential (townhouses and apartments) in the City of Pitt Meadows are metered but charged a flat rate (not based on consumption).

³ The City of Surrey provides water to agricultural properties for the purpose of domestic use only.

⁴ For sca̓waθan məsteyax^w, meters have been installed at new single and multi-family homes but are not currently billed as meter connections. N/A – not applicable; OR there are no identified connections of this sector type, OR Institutional connections could be metered but may not appear as billed accounts for certain member jurisdictions.

Percentage of residential single-house and duplex properties metered, as provided by Metro Vancouver member jurisdictions.

Source: Metro Vancouver Water Use by Sector Report, 2024.