



**CITY OF HAMILTON**  
**CORPORATE SERVICES DEPARTMENT**  
**Financial Planning, Administration and Policy Division**

<b>TO:</b>	Mayor and Members Committee of the Whole
<b>COMMITTEE DATE:</b>	April 29, 2020
<b>SUBJECT/REPORT NO:</b>	New Development Water Customer Attachment Billing Policy (FCS20023) (City Wide)
<b>WARD(S) AFFECTED:</b>	City Wide
<b>PREPARED BY:</b>	John Savoia (905) 546-2424 Ext. 7298
<b>SUBMITTED BY:</b>	Brian McMullen Director, Financial Planning, Administration and Policy Corporate Services Department
<b>SIGNATURE:</b>	

**RECOMMENDATION(S)**

- (a) That the New Development Water Customer Attachment Billing Policy, attached as Appendix "A" to Report FCS20023, be approved and effective as of May 1, 2020;
- (b) That the City Solicitor be authorized and directed to prepare all necessary by-laws to implement the New Development Water Customer Attachment Billing Policy set out in Recommendation (a) of Report FCS20023;
- (c) That Multi-residential and Industrial / Commercial / Institutional (ICI) properties under construction with active building permits issued prior to May 1, 2020, be required to pay the Unmetered Rates by Meter Size as outlined in Appendix "A" to Report FCS20023 at the time of the plumbing inspection stage where a water meter has not been installed;
- (d) That staff in Financial Planning, Administration and Policy Division coordinate a working group comprised of staff from Growth Management, Building Services, Hamilton Water and Alectra Utilities Corporation to identify the complete population of non-compliant, non-metered water service accounts and transition the accounts to metered service.

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## **EXECUTIVE SUMMARY**

The City's Waterworks By-law R84-026 (By-law) currently stipulates that all properties, once connected to the City's waterworks system, are to install a water meter and remote reading device. However, non-metered water is being supplied to properties with newly installed water services during construction of new developments and before the installation of a water meter. Metering and the commencement of water and wastewater / storm billings associated with new development construction in a timely and consistent manner, is generally challenging for water utilities to prevent unbilled consumption and the associated rate revenue leakage (refer to Analysis and Rationale for Recommendation section of Report FCS20023 for further details).

In 2009, staff developed and implemented a process that effectively addressed water meter installations and the commencement of water and wastewater / storm billings associated with new development construction of single-family dwellings. As of 2009, the water meter installation process has been incorporated within the Building Permit process. Consequently, billings have commenced in a consistent and fair manner whereby new single residential water accounts commence either on a metered basis when the water meter installation occurred, or on a non-metered / flat rate basis (1m<sup>3</sup>/day) at the time of the insulation inspection phase of the Building Permit process, depending on which event occurs first.

The commencement of flat-rate billings has proven effective to encourage installation of water meters to occur earlier in the typical residential build timeline as previously, water meters often were not installed until just prior to the house closing date so that any delays resulted in meters not being installed until after the house closing date. Incorporating the process into the New Development Water Customer Attachment Billing Policy, attached as Appendix "A" to Report FCS20023, formally documents a process that is being regarded as a best practice by other water utilities.

Construction water fees, enacted since January 2013, are user fees related to City-provided unmetered water used for construction purposes prior to meter installation. The fees vary according to the type of construction namely, single residential, multi-residential and Industrial / Commercial / Institutional (ICI) and are paid at the time of building permits issuance. These fees, related strictly to new construction, recognize that unmetered water is used for construction purposes for some length of time until a water meter can practicably be installed. For new single residential water accounts, the introduction of the construction water fee effectively closed a gap where the cost of City-provided unmetered water used for construction purposes prior to the time of the insulation inspection phase of the Building Permit process (or the installation of the water meter) was not being recovered / billed for.

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**SUBJECT: New Development Water Customer Attachment Billing Policy  
(FCS20023) (City Wide) – Page 3 of 11**

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The commencement of water and wastewater / storm billings associated with new development construction of ICI and multi-residential properties has been inconsistent occurring at varying points during construction and in many cases, no water meter had been installed by the final occupancy inspection phase. Furthermore, the construction water fees, while applicable to ICI and multi-residential properties, may not appropriately cost recover for the volumes of water used during such construction given the significant range in service line capacity related to large scale developments and the often lengthy timeframes before a water meter is installed. Hence, staff have strived to develop a process that incorporates the strengths of the process adopted a decade ago for new development construction of single-family dwellings.

The proposed process related to new development construction of ICI and multi-residential properties would, in lieu of applying construction water fees, initiate the commencement of water and wastewater / storm billings on a non-metered / flat rate basis at the time when the water service is activated by the City for the property. The flat rate pricing structure will be incremental based on the size of the meter that will be installed during the building process. For example, flat rate billing will be 4m<sup>3</sup>/day where a 50mm meter will be installed but for a 100mm meter, the flat rate billing would be based on 16m<sup>3</sup>/day.

Given the much longer construction timeframe associated with the usually larger scale ICI and multi-residential developments, more timely installation of water meters is desirable to increase fairness. Metering ensures users pay for the water they use. To provide a greater incentive to have meters installed earlier in the building process, flat rate billings commenced upon water activation will be tripled at the time of the plumbing inspection phase of the Building Permit process. As with the single residential process, the water meter and remote reading device is required to be installed prior to the final occupancy inspection phase failing which the occupancy inspection would not be scheduled by the City's Building Division. Further details on the proposed process can be found in Appendix "A" to Report FCS20023.

To educate the building community of the changed process for the commencement of water and wastewater / storm billings, as well as, water meter installations related to new development construction of ICI and multi-residential properties, a hand-out has been developed that would be attached to water meter permits which are issued at the same point in time when water servicing permits are issued (refer to Appendix "B" to Report FCS20023). Since 2009, a similar hand-out has been available when building permits for single residential construction are issued (refer to Appendix "C" to Report FCS20023 for current version of hand-out).

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**SUBJECT: New Development Water Customer Attachment Billing Policy  
(FCS20023) (City Wide) – Page 4 of 11**

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Given the inconsistencies with water billing commencement, not only has the City likely not adequately charged for water use during construction, there is the possibility that water services have been installed and water meters may not have been installed and potentially resulting in newly developed properties receiving water and wastewater / storm services without being billed. Recommendation (d) of Report FCS20023 directs staff to undertake an extensive audit to verify that properties serviced with City water services are metered and are being billed the associated user fees.

**Alternatives for Consideration – N/A**

**FINANCIAL – STAFFING – LEGAL IMPLICATIONS**

**Financial:** The recommended New Development Water Customer Attachment Billing Policy is expected to reduce unmetered water use and increase overall rate revenues. While it is very difficult to quantify the increased revenues, every one percent decrease in the amount of unaccounted for non-revenue water consumption would yield nearly \$800 K of additional revenue (based on 2020 rates) offset by the elimination of construction water fees for larger scale ICI and multi-residential developments which for 2019 amounted to nearly \$100 K in revenue.

**Staffing:** No impact to current staffing levels.

**Legal:** Under the authority of sections 9, 10, and 11 and 391 of the *Municipal Act, 2001*, the City has the authority to charge a user fee to cover the cost of publicly provided services. A key consideration is to ensure that there is a connection between the amount of the user fee and the cost of the service being provided, such that it is not categorized as a tax.

As Report FCS20023 deals with the approval of a policy framework for imposing water and wastewater / storm fees, public notice has been given under the City's Public Notice Policy By-law 07-351.

**HISTORICAL BACKGROUND**

The City's Waterworks By-law R84-026 (By-law) currently stipulates that all properties, once connected to the City's waterworks system, are to install a water meter and remote reading device. Despite this long-standing requirement, non-metered water is being supplied to properties with newly installed water services during construction of new developments before the installation of a water meter.

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**SUBJECT: New Development Water Customer Attachment Billing Policy  
(FCS20023) (City Wide) – Page 5 of 11**

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In 2009, staff developed and implemented a process that effectively addresses water meter installations and the commencement of water and wastewater / storm billings associated with new development construction of single-family dwellings. Prior to 2009, water and wastewater / storm billing commencement had been inconsistent occurring at varying points during construction and in many cases, no water meter had been installed by the house closing date. As of 2009, the water meter installation process has been included within the Building Permit process. Consequently, billings have commenced in a consistent and fair manner whereby new single residential water accounts commence either on metered usage when the water meter installation occurred or on a non-metered flat rate basis (1m<sup>3</sup>/day) at the time of the insulation inspection phase of the Building Permit process, depending on which event occurs first.

The water meter and remote reading device is required to be installed prior to the final occupancy inspection phase failing which the occupancy inspection would not be scheduled by the City's Building Division. The commencement of flat rate billings has proven effective to encourage installation of water meters to occur earlier in the typical residential build timeline as previously, water meters often were not installed until just prior to the house closing date and as previously mentioned, in some cases, meters were not installed until after the house closing date. Incorporating the process into the New Development Water Customer Attachment Billing Policy attached as Appendix "A" to Report FCS20023 formally documents what is being regarded as a best practice by other water utilities.

Construction water fees in place since January 2013 are user fees related to City-provided unmetered water used for construction purposes prior to meter installation. The fees vary according to the type of construction namely single residential, multi-residential and Industrial / Commercial / Institutional (ICI) and are paid at the time of building permits issuance. These fees approved as part of the annual Rate Budget process are related strictly to new construction and recognize that unmetered water is used for construction purposes for some length of time until a water meter can practicably be installed. For new single residential water accounts, the introduction of the construction water fee effectively closed a gap where the cost of City-provided unmetered water used for construction purposes prior to the time of the insulation inspection phase of the Building Permit process (or the installation of the water meter) was not being recovered / billed for.

The 2020 construction water fees are as follows:

Single Residential (per lot or townhouse)	<b>\$ 100.00</b>
Multi-residential (per apartment / condo unit)	<b>\$ 46.75</b>
Industrial / Commercial / Institutional (\$/1,000 sq. ft. of building area or \$/ha where no structure is constructed)	<b>\$ 32.80</b>

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The commencement of water and wastewater / storm billings associated with new development construction of ICI and multi-residential properties has been inconsistent occurring at varying points during construction and in many cases, no water meter had been installed by the final occupancy inspection phase. Furthermore, the construction water fees, while applicable to ICI and multi-residential properties, may not appropriately cost recover for the volumes of water used during such construction given the significant range in service line capacity related to large scale developments and the often lengthy timeframes before a water meter is installed. Hence, staff has strived to develop a process that incorporates the strengths of the process adopted a decade ago for new development construction of single-family dwellings.

## **POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS**

Report FCS20023 proposes a New Development Water Customer Attachment Billing Policy for the consideration of Council that supports the principle of a sustainable user-pay water and wastewater / stormwater program.

## **RELEVANT CONSULTATION**

Corporate Services Department – Legal and Risk Management Services Division has been consulted in the preparation of Report FCS20023.

Planning and Economic Development Department – Building Services and Growth Management Divisions support the recommendations of Report FCS20023.

Public Works Department – Hamilton Water Division supports the recommendations of Report FCS20023.

Alectra Utilities Corporation has been consulted and advised of implementation requirements that arise from the adoption of the recommendations of Report FCS20023 and have indicated they can support the City with these initiatives.

## **ANALYSIS AND RATIONALE FOR RECOMMENDATION(S)**

Metering and the commencement of water and wastewater / storm billings associated with new development construction in a timely and consistent manner, is challenging for water utilities in general to prevent unbilled consumption and the associated rate revenue leakage.

An online literature review to identify possible best practices for the commencement of billings and installation of meters yielded two recent comprehensive audits of two large water utilities regarding water billing and metering practices:

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**1. March 2017, Toronto – Water Billing and Water Meter Management Require Strengthening Auditor General’s Report**

This audit reviewed Toronto’s water billing and collection processes with the audit performed in two phases:

- Phase I focused on the collection of outstanding water accounts
- Phase II focused on the processes and controls to ascertain the accuracy and completeness of water billing, recording of customer payments, account adjustments and monitoring of service orders for water meter installation and repairs

The audit did find that most accounts have been billed appropriately. However, it did note important areas where the City was losing revenue and / or incurring unnecessary operating cost. Certain key observations included:

- From a sample of approximately 2,500 properties with closed construction permits nearly six per cent did not have a water meter or water billings even though there was evidence of water usage.
- Inadequate communication between Toronto Building and Toronto Water Divisions on the status of closed building permits for properties under construction.
- Total impact of unbilled water usage on revenues could not be determined due to the complexity and time required to review all the potential unbilled properties. However, an estimate of \$1.3 M in potential unbilled revenue was noted related to sampled properties with revenue recovery limited by how far back the City can retroactively bill these accounts.
- Repeat no-access site visits wasted City resources and delayed water meter installations.

Audit Recommendations included the following:

- Toronto Water, to coordinate with Toronto Building and explore opportunities for shared services relating to construction permit status reporting and water meter verification during building inspections.
- Revenue Services and Toronto Water, to review all property addresses in the various systems with a view to integrating data and developing exception reports for properties without a water meter.

Toronto Water has responded to the audit with a commitment to work with Toronto Building “to explore opportunities to include the meter installation in the permit process, possibly at the ‘vapour barrier and insulation’ phase of the permit process.”

The Toronto audit confirms the strengths of Hamilton’s process that has been in place since 2009, for water meter installations and the commencement of water and wastewater / storm billings associated with new development construction of single-family dwellings. Specifically, the Toronto audit recommendations mirror Hamilton’s process whereby the meter installations are included within the building permit process, water billings commence at the insulation inspection phase and the water meter and remote reading device are required to be installed prior to the final occupancy inspection phase providing water meter installation verification.

## **2. June 2015, City of Chicago – Water Service Account Inventory and Revenue Audit Report from the Office of the Inspector General**

This audit examined the practices of the Chicago Department of Water Management (DWM) to determine whether the DWM maintained a complete and accurate inventory of water service accounts and that it billed all accounts in a timely manner and for the correct amount. The audit did find that the DWM:

- failed to charge for water used during construction of new privately-owned buildings from June 2008 through December 2014, resulting in lost revenue of an estimated \$3.9 M;
- provided non-metered water service to non-residential buildings and residential buildings with three or more units in violation of Municipal Code of Chicago (MCC);
- failed to bill and / or collect payment from accounts that were incorrectly coded as inactive or permanently removed.

As a result of the audit, the DWM responded that it will change its policy and will require that a water meter be installed at the time a city watermain is tapped and to take appropriate enforcement actions against noncompliant, non-metered accounts. Additionally, the DWM committed to take appropriate enforcement actions against noncompliant, non-metered accounts.

The Chicago audit identified similar issues observed in Hamilton with respect to the commencement of water and wastewater / storm billings associated with new development construction of ICI and multi-residential properties whereby essentially unlimited non-metered water service is provided during construction with no associated usage billings and in many cases, no water meter had been installed by the final occupancy inspection phase.

**Proposed Hamilton Billing Policy**

While the Chicago audit recommendation to install water meters at the time a city watermain is tapped could be considered ideal, such a requirement is not practical unless all water metering occurred at the property line. Most of Hamilton’s new development construction of ICI and multi-residential properties typically have the water meter installed within a building. Hence, the proposed process for metering and billing of new development construction of ICI and multi-residential properties has identified enhancements whether the metering will occur at the property line or within buildings (further details on the proposed policy can be found in Appendix “A” to Report FCS20023).

The proposed policy related to new development construction of ICI and multi-residential properties would, in lieu of applying construction water fees, initiate the commencement of water and wastewater / storm billings on a non-metered flat rate basis at the time when the water service is activated by the City for the property. The flat rate pricing structure will be incremental based on the size of the meter that will be installed during the building process. For example, flat rate billing will be 4m<sup>3</sup>/day where a 50mm meter will be installed but for a 100mm meter, the flat rate billing would be based on 16m<sup>3</sup>/day as reflected in Table 1 of Report FCS20023.

**Table 1  
Unmetered Rates by Meter Size**

Meter to be installed		Unmetered m3/day	2020 Costs *	
inches	mm		Daily	Monthly **
< 1	15-21	1.0	\$ 3.39	\$ 101.70
1	25	1.5	\$ 5.09	\$ 152.55
1.5	38	2.5	\$ 8.48	\$ 254.25
2	50	4	\$ 13.56	\$ 406.80
3	75	9	\$ 30.51	\$ 915.30
4	100	16	\$ 54.24	\$ 1,627.20
6	150	36	\$ 122.04	\$ 3,661.20
8	200	64	\$ 216.96	\$ 6,508.80
10	250	100	\$ 339.00	\$ 10,170.00

\* Combined water and wastewater / storm

\*\* 30-day month

**SUBJECT: New Development Water Customer Attachment Billing Policy  
(FCS20023) (City Wide) – Page 10 of 11**

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Like past Hamilton experience, the Chicago audit identified that existing processes allowed property owners to delay meter installation during construction long after the water service had been installed. The proposed process for Hamilton recognizes the much longer construction timeframe associated with the usually larger scale ICI and multi-residential developments, therefore, more timely installation of water meters is desirable to increase fairness. Metering ensures users pay for the water they use. To provide a greater incentive to have meters installed earlier in the building process, flat rate billings commenced upon water activation, will be tripled at the time of the plumbing inspection phase of the Building Permit process. As with the single residential property process, the water meter and remote reading device will be required to be installed prior to the final occupancy inspection phase failing which the occupancy inspection would not be scheduled by the City's Building Division.

Both audits identify that given the lack of appropriate controls, the potential exists for the City to provide water service to properties without collecting payment from property owners. In the absence of the recommended process related to new development construction of ICI and multi-residential properties, there have been ongoing examples of properties being fully constructed and occupancy granted without water meters installed or water service being billed. From October to December 2019, three such examples were identified:

- Elementary school which opened April 2018 with water service activated in April 2017. However, in October 2019, the property was identified as not having a water meter in place nor any billings for the water service being provided. A back bill for approximately \$10 K was charged.
- Franchise restaurant newly built and opened in January 2018 with water service activation occurring in March 2017. Water meter installed in January 2019 with a back billing of \$11.3 K.
- City park splash pad opened in July 2018 with water meter installation in January 2019 resulting in a back billing of approximately \$9 K.

Fortunately, in the examples above, the backbilling period was within two years as the City's practices regarding Water and Wastewater / Storm Utility Back-Bill Adjustments takes into consideration the *Limitations Act, 2002* and therefore, the ability to collect under-billed amounts may be limited when the City is faced with retroactive billing periods that surpass two years. Often times, such properties remain non-compliant and non-metered.

Recommendation (d) of Report FCS20023 directs staff to undertake an extensive audit to verify that properties serviced with City water services are metered and are being billed the associated user fees.

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**SUBJECT: New Development Water Customer Attachment Billing Policy  
(FCS20023) (City Wide) – Page 11 of 11**

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It is not possible to estimate the degree of potential revenue recovery the recommended audit may provide. In early 2008, City staff commenced an extensive audit to verify that properties serviced with City sanitary sewer services were being billed the associated wastewater user fee. That audit focused on assessing if sewer services were being provided to over 2,500 properties situated across the City which were not being charged the sewer user fee albeit a City sewer main was located nearby. From April 2008 to June 2012, over 1,100 properties were identified as connected to the City's sewer system with approximately 80% of identified properties being single residential. One-time back-bill adjustments for related retroactive sewer user fees amounted to revenue recovery of approximately \$1 M with estimated annual rate revenues of \$500 K (refer to Report FCS12075).

**ALTERNATIVES FOR CONSIDERATION**

N/A

**ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN**

**Healthy and Safe Communities**

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

**Clean and Green**

Hamilton is environmentally sustainable with a healthy balance of natural and urban spaces.

**APPENDICES AND SCHEDULES ATTACHED**

Appendix "A" to Report FCS20023 - New Development Water Customer Attachment Billing Policy

Appendix "B" to Report FCS20023 - Water meter installation pamphlet for New ICI / Multi-residential Development

Appendix "C" to Report FCS20023 - Water meter installation pamphlet for Single Residential Development

JS/dt