



Report to: General Committee

Meeting Date: April 23, 2019

SUBJECT:	Water Related By-law Update and Consolidation
PREPARED BY:	Rebecca Fei, Compliance Engineer – Ext 2687 Gord Miokovic, Manager of System Engineering – Ext 2519

RECOMMENDATION:

1. That the report entitled “Water Related By-law Update and Consolidation”, dated April 23, 2019, be received; and,
2. That the proposed Water Use By-law, as described in this report and in the form set out in Attachment “A” be approved and enacted; and,
3. That the four new Waterworks Fees as described in this report be approved, and that an amendment to By-law No. 2002-276 “Fee By-law”, as amended, be approved and enacted in the form set out in Attachment “B”; and,
4. That an amendment to By-law No. 2016-84 “AMPS By-law for Non-Parking Offences”, as amended, be approved and enacted in the form set out in Attachment “C”; and,
5. That an amendment to By-law No. 2012-137 “Licensing, Permit and Service Fees By-law”, as amended, be approved and enacted in the form set out in Attachment “D”; and,
6. That each of the Director of Environmental Services and the Director of Engineering be authorized to execute agreements (i.e. “Water Service Connection Installation Agreement”) for the construction of Water Service Connections with property owners under section 6.1.1 of the Proposed Water Use By-law to the satisfaction of the Director of Environmental Services or the Director of Engineering ; and further,
7. That Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

This report summarizes the update and consolidation of three existing water related by-laws and seeks Council’s approval of the proposed Water Use By-law (Attachment “A”) and the establishment of four new Waterworks Fees (Attachment “B”).

This report also seeks Council’s approval for housekeeping amendments to By-law No. 2016-84 “AMPS By-law for Non-Parking Offences” (Attachment “C”) and By-law No. 2012-137 “Licensing, Permit and Service Fees By-law” (Attachment “D”) that will be required if the proposed Water Use By-law is enacted.

BACKGROUND:

The City’s water supply system serves approximately 82,277 residential and ICI (Industrial, Commercial and Institutional) water customers. The City’s water supply system consists of approximately 1,070 km of water mains, 82,277 service connections and related water meters, 8,620 public fire hydrants and other appurtenances.

To establish a regulation framework for the water supply system, the City currently has three existing water related by-laws:

- 1) By-law No. 1602 was enacted by Council on June 11, 1956 to regulate the construction, operation and maintenance of the City’s waterworks system. Several minor amendments were made up to November 20, 2012. Major updates are required to reflect current industry practice and water system management as well as billing requirements.

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- 2) By-law No. 105-95 was enacted by Council on June 27, 1995 to regulate lawn watering during the summer season. Only minor updates are required to incorporate our current outdoor water restriction practice.
 - 3) Water Meter By-law No. 2012-42 was enacted by Council on November 20, 2012 to regulate the installation, maintenance, access and reading of water meters. The By-law was last amended on June 26, 2018 and requires minor updates to better support the City's water metering program.

The City's water by-laws are intended to:

- 1) Protect the integrity of the water supply system by setting out requirements for construction, operation and maintenance of the City's water system.
- 2) Improve operational efficiency by defining the roles and responsibilities of the City and water customers.
- 3) Ensure the by-law requirements can be met by providing more streamlined enforcement mechanisms for those infractions.

OPTIONS/ DISCUSSION:

I. Approach used to Undertake the By-law Updates and Consolidation

In order to reflect our current water system related requirements and bylaw enforcement practices, it is necessary to update the three existing water related by-laws and consolidate them into one comprehensive by-law that will be easier to understand. The following approach was used to develop the new Water Use-Bylaw (Attachment "A").

1. "Table of Contents" has been added for easy navigation of the new Water Use By-law.
2. New provisions were added to the By-law to address specific issues encountered related to water service, water metering and billing, and waterworks system management.
3. Existing provisions have been revised or expanded to clarify the requirements.
4. To ensure the proposed Water Use By-law conforms to industry practice, staff have reviewed other Water Use By-laws in the Greater Toronto Area and where necessary incorporated those provisions.
5. Attachment "E" (i.e. *Summary of three By-laws' updates and consolidation into one new Water Use By-law*) identifies all changes.
6. The existing three water related by-laws will be repealed with the enactment of the proposed Water Use by-law.

II. Key Updates to By-law No. 1602 enacting rules and regulations of Waterworks construction, operation and maintenance:

All provisions have been reworded and expanded to reflect the current practices before being consolidated into the new Water Use By-law. Key changes are highlighted below:

1. Section 6 "*Water Service Connections*" has been added to identify all components associated with water service connections – from application, installation, replacement and the related costs.
2. Section 6.8 "*Frozen Water Service Connection/Private Water Pipes*" and section 6.9 "*Vacant or unheated Properties*" have been added to clarify the responsibilities of the City

and owners when water service connections, private water service pipes, private fire mains or water meters freeze or properties are left vacant or unheated for extended periods of time.

3. Section 11.0.1 "*Prohibition of New Private Well Within Municipal Water Service Areas*" has been added to prohibit the establishment of any new or replacement private wells in a water serviced urban area. It also lists situations when an exemption for a new or replacement private well may be permitted.
4. Section 12 "*Billings and Collection of Accounts*" has been added to explain current billing practices.

III. Updates of By-law No. 105-95 Regulating Lawn Watering:

All sections have been consolidated with two changes highlighted below:

1. Markham's current By-law related to lawn watering (i.e. odd numbered addresses are permitted to water lawns on the odd numbered days of the month; and even numbered addresses are permitted to water lawns on the even numbered days of the month) provides an additional watering day (the 31st) for the odd-numbered addresses. As such, for the months with 31 days, section 10.0.0(c) has been added to permit residents with all addresses to water their lawns on the 31st of those months.
2. Section 10.1 "*Water Use Restriction Order*" has been added to give the Director of Environmental Services the authority to issue such restrictions when one or more water supply situations warrant such restriction, such as insufficient water supply or insufficient water pressure associated with issues related to the operation of Markham's or Region of York's water infrastructure. Restrictions would typically be undertaken in consultation with Region of York.

IV. Updates of Water Meter By-law No. 2012-242:

All sections have been consolidated with five key changes highlighted below:

1. Section 7.0.1 "*Water Meters –City Property*" and Section 7.0.2 "*Private Water Meters – Not the City's responsibility; not used for the City's water billing purposes*" have been added to clarify the types and purpose of water meter and the related responsibility.
2. Section 7.1.8(f), 7.2.2(c) and 7.3.2(h) have been added to deal with water theft through opened water meter by-pass valves, water meters which have been tampered with or from illegal connections. For water meters that fail to register, back charges are estimated for no more than a 24 month period. However, these new sections give the Director of Environmental Services the discretion to back charge beyond the 24 month period where water theft has occurred.
3. Section 7.2.1(j) has been added to deal with those owners or occupiers who refuse the City access to the water meter. It gives the City the authority to enter onto property in accordance with the Section 14 "Powers of Entry" provisions in the By-law and the *Municipal Act*. Section 14.2.1 of the By-law allows the City enter to read, inspect, install, repair, replace, maintain, alter or remove a water meter or related appurtenances. Section 14.0 of the By-law also provides that no person shall hinder, obstruct or deny the City access to a property for any purpose permitted in the By-law.
4. Section 7.3.5(d) permits the City to issue an Order to an owner or occupier when they fail to comply with the City's notices to schedule a meter replacement appointment, to provide

the City access to a water meter, or to repair or replace their private water system prior to the City's water meter replacement.

5. Section 7.5 "*Unmetered Fire Line*" has been added to permit the continued use of grandfathered fire lines installed without metering.

V. Proposed New Waterworks Charge/Fee:

Along with the proposed Water Use By-law, the four new Waterworks Fees as described in Attachment "B" should be established and incorporated into Markham's Fee By-law No. 2002-276.

VI. Amendments to other City By-laws:

1. Currently, two City By-laws make reference to Water Meter By-law No. 2012-242:
 - By-law No. 2016-84 "AMPS By-law for Non Parking Offences"
 - By-law No. 2012-137 "Licensing, Permits and Service Fees By-law"
2. Housekeeping amendments to these two By-laws are necessary so that reference to the Water Meter By-law No. 2012-242 is removed and replaced with the new Water Use By-law recommended in this report. Attachment "C" and Attachment "D" are the proposed amendments to these two By-laws.
3. In addition, two new offence provisions from the proposed Water Use By-law [i.e. section 7.3.5(e)(ii) and section 7.3.5(e)(iii)] are being added to the "AMPS By-law for Non-Parking Offences".
4. The existing two water related AMPS offences will remain in the By-law No. 2016-84, but will be renumbered to match the corresponding provisions of the proposed Water Use By-law [i.e. section 7.3.5(e)(i) and section 9.0.0].

VII. Delegated Authority to Enter into Water Service Connection Installation Agreements:

1. Section 6.1.1 of the new Water Use By-law gives each of the Director of Environmental Services and the Director of Engineering the discretion to authorize property owners to install their own water service connections, including a watermain, under certain circumstances.
2. An agreement (i.e. "Water Service Connection Installation Agreement") is required to outline the obligations of the owner and the City with respect to the installation of the water service connections and any associated works.
 - A. The owner's obligation would include:
 - Hiring a Professional Engineer to: (a) carry out the design and to administer the agreement on behalf of the owner; (b) submit the design to the City for review and approval; (c) inspect and certify that the construction meets the City's requirements; and (d) any other obligations that the Professional Engineer needs to fulfill.
 - Retaining a contractor to install the water service connection in accordance with the design prepared by the owner's Professional Engineer and approved by the City.
 - Providing financial securities to guarantee the completion of the work to the City's satisfaction and payment of other applicable fees as required by the agreement.
 - Complying with all applicable laws and City By-laws.
 - B. The City's obligations would include:

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- Review and approval of the design of the proposed construction prepared by the owner's Professional Engineer.
 - Inspection of the installation.
 - Acceptance of the installation when certified by the Professional Engineer and if satisfactory to the Director of Environmental Services or the Director of Engineering.
 - Release of the financial securities in accordance with the conditions set out in the agreement.
3. A template agreement will be developed, the terms and conditions of which will be to the satisfaction of the Director of Environmental Services and the Director of Engineering and in a form that is to the satisfaction of the City Solicitor. It is recommended that the execution of the agreements be delegated to each of the Director of Environmental Services and Director of Engineering.

FINANCIAL CONSIDERATIONS

The four new Waterworks Fees as described in Attachment "B" will be charged, billed and collected directly from the customers. The revenue generation from those new fees will be monitored and the 2020 budget will be adjusted based on actual fees collected in 2019.

HUMAN RESOURCES CONSIDERATIONS

Not Applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

Municipal Services/Excellence Markham – Update and consolidation of Markham's water-related by-laws will help our water customers and contractors better understand the City's water-related requirements in one concise document. Further, the new By-law now reflects current industry practice and water system management requirements.

BUSINESS UNITS CONSULTED AND AFFECTED:

The following departments and business units were consulted during the preparation of Water related By-law Update and Consolidation and this report:

• Engineering	• Building Standards	• Fire and Emergency
• Legislative Services	• Financial Services	• Legal Services

RECOMMENDED BY:

Phoebe Fu, P.Eng
Director, Environmental Services

Brenda Librecz
Commissioner, Community and Fire Services

ATTACHMENTS:

1. Attachment "A" – Proposed Water Use By-law (2019-XXX)
2. Attachment "B" – Proposed amendment to Fee By-law No. 2002-276
3. Attachment "C" – Proposed amendment to By-law No. 2016-84
4. Attachment "D" – Proposed amendment to By-law No. 2012-137
5. Attachment "E" – Summary of three By-laws' updates and consolidation into one new Water Use By-law