

**2. RECOMMENDED WATER, WASTEWATER, AND STORMWATER RATE STRUCTURE**

**BARÈME DE REDEVANCES RECOMMANDÉ POUR LE FINANCEMENT DES SERVICES D'EAU, D'ÉGOUT ET DE GESTION DES EAUX PLUVIALES**

**COMMITTEE RECOMMENDATIONS AS AMENDED**

That Council:

1. Approve a new Rate Structure for Water, Wastewater and Stormwater Services, as outlined in this report and including as follows:
  - a. A Water Rate for Drinking Water Services, based on a combination of a fixed fee and a consumption charge, as described in this report;
  - b. A Wastewater Rate for Wastewater Services, based on a combination of a fixed fee and a consumption charge, as described in this report; and
  - c. A Stormwater Fee for Stormwater Services, including the four-year phase-in of the fee for those households and businesses not connected to the City's water and wastewater infrastructure, as described in this report;
  - d. A regular review of the new rate structure in future Long-Range Financial Plans, as described in this report.
2. Direct staff to undertake a review of the ditching standards and the City's Ditch Alteration Policy and report back to Committee and Council no later than in Q4 2017;
3. Direct staff to review municipal best practices for credits for stormwater management controls on individual properties, including those that recognize rain barrels, trees, cisterns, permeable driveways, and/or other engineered landscape controls, and report back on their findings

as part of the next term of Council's long-range financial plan for rate-supported programs, and;

- 4. Request, through the Mayor, that the Municipal Property Assessment Corporation include the actual impervious surface area in square metres, in property listings at their earliest opportunity; and that this request be forwarded to all local Members of Provincial Parliament and to the Association of Municipalities of Ontario.**

### **RECOMMANDATIONS MODIFIÉES DU COMITÉ**

Que le Conseil :

- 1. Approuve un nouveau barème de redevances pour le financement des services d'eau, d'égout et de gestion des eaux pluviales, comme indiqué dans ce rapport et incluant :**
  - a. Un tarif pour les services d'eau potable fondé sur la combinaison d'un tarif fixe et d'un tarif modulé en fonction de la consommation, comme décrit dans ce rapport;**
  - b. Un tarif pour les services d'égout fondé sur la combinaison d'un tarif fixe et d'un tarif modulé en fonction de la consommation, comme décrit dans ce rapport;**
  - c. Une redevance pour les services de gestion des eaux pluviales, notamment la mise en œuvre graduelle sur quatre ans de cette redevance pour les ménages et les entreprises non raccordés au réseau d'aqueduc et d'égout de la Ville, comme décrit dans ce rapport;**
  - d. Un examen périodique de la nouvelle structure tarifaire dans le cadre des prochains plans financiers à long terme de la Ville, comme décrit dans ce rapport.**
- 2. Demande au personnel d'entreprendre l'examen des normes sur les fossés et de la politique de la Ville concernant le remblayage des fossés**

et de remettre un rapport à cet effet au Comité et au Conseil dans le quatrième trimestre de 2017 au plus tard;

- 3. Demande au personnel d'analyser les pratiques exemplaires des villes concernant les crédits accordés pour des mesures de gestion des eaux pluviales sur des propriétés individuelles, y compris les crédits pour l'utilisation de barils de pluie, d'arbres, de citernes, d'entrées de cour perméables et d'autres mesures techniques de contrôle paysager, et que le personnel présente ses conclusions dans le cadre du plan financier à long terme pour le prochain mandat du Conseil en ce qui a trait aux programmes financés par les redevances, et;**
- 4. Demande, par l'entremise du maire à la Société d'évaluation foncière des municipalités d'inclure la surface dure actuelle des propriétés en mètres carrés dans leurs listes dès qu'elle pourra le faire et que cette demande soit acheminée à tous les députés provinciaux locaux et à l'Association des municipalités de l'Ontario.**

#### DOCUMENTATION / DOCUMENTATION

1. City Treasurer's report, dated 11 October 2016 (ACS2016-CSD-FIN-0008).  
  
Rapport de la Trésorière municipale, daté le 11 octobre 2016 (ACS2016-CSD-FIN-0008).
2. Extract of Draft Minute, Environment Committee, 18 October 2016.  
  
Extrait de l'ébauche du procès-verbal du Comité de l'environnement, le 18 octobre 2016.

**Report to  
Rapport au:**

**Environment Committee  
Comité de l'environnement  
18 October 2016 / 18 octobre 2016**

**and Council  
et au Conseil  
26 October 2016 / 26 octobre 2016**

**Submitted on October 11, 2016  
Soumis le 11 octobre 2016**

**Submitted by  
Soumis par:  
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**Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE      File Number: ACS2016-CSD-FIN-0008**

**SUBJECT: Recommended Water, Wastewater, and Stormwater Rate Structure**

**OBJET: Barème de redevances recommandé pour le financement des services d'eau, d'égout et de gestion des eaux pluviales**

## **REPORT RECOMMENDATIONS**

**That the Environment Committee recommend that Council:**

- 1. Approve a new Rate Structure for Water, Wastewater and Stormwater Services, as outlined in this report and including as follows:**

- a. **A Water Rate for Drinking Water Services, based on a combination of a fixed fee and a consumption charge, as described in this report;**
  - b. **A Wastewater Rate for Wastewater Services, based on a combination of a fixed fee and a consumption charge, as described in this report; and**
  - c. **A Stormwater Fee for Stormwater Services, including the four-year phase-in of the fee for those households and businesses not connected to the City's water and wastewater infrastructure, as described in this report;**
  - d. **A regular review of the new rate structure in future Long-Range Financial Plans, as described in this report.**
- 2. Direct staff to undertake a review of the ditching standards and the City's Ditch Alteration Policy and report back to Committee and Council no later than in Q4 2017.**

## **RECOMMANDATIONS DU RAPPORT**

**Que le Comité de l'environnement recommande au Conseil :**

- 1. D'approuver un nouveau barème de redevances pour le financement des services d'eau, d'égout et de gestion des eaux pluviales, comme indiqué dans ce rapport et incluant :**
  - a. **Un tarif pour les services d'eau potable fondé sur la combinaison d'un tarif fixe et d'un tarif modulé en fonction de la consommation, comme décrit dans ce rapport;**
  - b. **Un tarif pour les services d'égout fondé sur la combinaison d'un tarif fixe et d'un tarif modulé en fonction de la consommation, comme décrit dans ce rapport;**
  - c. **Une redevance pour les services de gestion des eaux pluviales, notamment la mise en œuvre graduelle sur quatre ans de cette redevance pour les ménages et les entreprises non raccordés au réseau d'aqueduc et d'égout de la Ville, comme décrit dans ce rapport;**

- d. Un examen périodique de la nouvelle structure tarifaire dans le cadre des prochains plans financiers à long terme de la Ville, comme décrit dans ce rapport.**
- 2. De demander au personnel d'entreprendre l'examen des normes sur les fossés et de la politique de la Ville concernant le remblayage des fossés et de remettre un rapport à cet effet au Comité et au Conseil dans le quatrième trimestre de 2017 au plus tard.**

## **EXECUTIVE SUMMARY**

Residents and businesses count on having access to safe, clean water, sanitation and flood-free roads. These services are usually taken for granted. We are reminded of just how vital these services are to our quality of life by events such as the contamination of the water supply in Walkerton, Ontario in 2000 (which influenced the current regulatory framework for water services), water crises in a number of indigenous communities throughout northern Canada, and local issues like the discharges to the Ottawa River from combined sewers, broken watermains, problems with communal wells and pockets of local flooding. They remind us of just how important it is to have reliable and well maintained infrastructure to provide us with those services.

In Ontario, municipal governments are responsible for providing residents and businesses with safe, clean drinking water, with disposing of and treating wastewater and (together with local conservation authorities) managing stormwater to reduce flooding, pollution and erosion. Because of their importance to the health of the public and the environment, these services operate with service and infrastructure standards that are highly-regulated by the provincial and federal governments.

The City of Ottawa's water, wastewater and stormwater systems are large and complex relative to other Ontario cities. There are a number of factors contributing to this complexity: the City covers a large geographic area with significant rural, suburban and urban communities, each with different infrastructure profiles and needs. Ottawa is situated within an extensive network of rivers and streams that need protection. Over 32,400 households and 5,800 businesses receive their drinking water from private wells, which means groundwater protection takes on added importance, and much of the infrastructure was constructed by the 12 former municipal governments that make up the amalgamated City of Ottawa, meaning that infrastructure was built over an

extended period of time to different standards, with different levels of investment and maintenance.

Priorities for taking care of the City of Ottawa's water, wastewater and stormwater services (which are delivered by nearly \$18 billion in infrastructure), are determined every year through the annual Rate-Supported Operating and Capital Budget process. These budgets are based on a significant number of plans that, taken together, provide City Council with the information they need to proactively ensure the long-term integrity of these essential services. These plans included the Long-Range Financial Plan for Rate-Supported Programs (LRFP), the Infrastructure Master Plan, the Ottawa River Action Plan, the Water Efficiency Strategy and Phase 2 Water Efficiency Plan, the Integrated Asset Management Strategy and the Wet Weather Infrastructure Plan.

City Council takes all of these plans into consideration as it approves each annual rate budget. Once the budget is approved, all costs related to drinking water, wastewater and stormwater services are apportioned to those people that pay for water (i.e. those who are connected to the City's water and wastewater systems) by means of a formula known as the rate structure. In other words, the rate structure doesn't add money to the City budget, rather the budget determines how much the City will spend in a year, while the rate structure determines the portion that each household and business will pay for what is budgeted for these services.

The City's current rate structure is based solely on how much water is used. Briefly, for those residents and business on piped services, all the drinking water used is metered and charged for, and then a sewer surcharge is added, which is a percentage of the measured water consumption. The funds from the sewer surcharge is used to recover the costs for both wastewater and stormwater services delivered by the City. At this point in time, all water, wastewater and stormwater services are funded through the water and sewer bill, which is paid by approximately 90% of Ottawa households and businesses.

There are two key challenges with the current water and sewer rate structure.

The first is revenue instability. As indicated, the water/wastewater rate is based 100% on water consumption. This is a challenge for two reasons. Each year the City budgets for a certain revenue level based on estimated consumption in order to fully recover costs. If the actual consumption declines, a revenue shortfall is created that must be

recovered in the following year, in addition to recovering regular annual cost increases in that year. Having an exclusively consumption-based rate structure, combined with a desire to reduce consumption while maintaining reliable and safe water systems creates inherent conflict and instability. As well, the costs for operating, maintaining and, in particular, renewing these systems are a function of the size, age and complexity of the infrastructure and services needed to deliver the services, no matter how much water is used. It is estimated that 90% of the costs of delivering water and sewer services are fixed, and only 10% of the costs actually vary with consumption. This is typical of most utilities.

The second issue is the need to align user fees directly with the benefit received, consistent with the user fee principles in the *Municipal Act, 2001* and the City's Fiscal Framework. Under the current structure, only those that pay a water bill are paying for City stormwater services, although stormwater runoff issues are more related to impervious surfaces like roads, buildings and paved surfaces than to water use. Further, almost all properties in the City of Ottawa receive some direct benefit from the City's stormwater management infrastructure and services while not all properties contribute to the costs.

The need to review the City's rate structure was identified by the City's Auditor General in his "Audit of Drinking Water Services". During the 2015 Rate-Supported Budget discussions, Members of Council expressed concerns about the variability of year-over-year water consumption and the resulting variances between budgeted and actual revenues. In May 2015, the Environment Committee and Council directed staff to bring forward an updated proposal for a new water, wastewater and stormwater rate structure for Council's consideration.

The Water, Wastewater and Stormwater Rate Review (the Review) was led by Finance staff, with the advice of the City's Environmental Services and Infrastructure Services staff and the services of the engineering firm AECOM, who have developed stormwater funding models for several municipalities, including Mississauga, Guelph, Kitchener, Waterloo and Markham. The goal of the Review was to develop a new rate structure that would be fair and equitable, and ensure a stable and sustainable funding mechanism for the City to support reliable, quality services and maintain assets in a state of good repair.



The Review began with in-depth research on the City's costs for these services, an analysis of water billing accounts, industry best practices and emerging trends. Then, there was an evaluation of a number of water, wastewater and stormwater rate structure methodologies, with detailed financial, impact and sensitivity analyses of the options that would maintain overall revenue neutrality for each of the water, wastewater and stormwater services. This included an assessment of the impact on various classes and types of users.

Once staff had reviewed all of the research, they short-listed one water and wastewater and three stormwater rate structure options that they believed would be best suited to the City of Ottawa and that would be in keeping with Council's Fiscal Framework and other long-range financial plans. These options also aligned as much as possible with six Council-approved principles: fairness and equity (services are paid for in accordance with the benefit received); affordability (ensures that the level of consumption required to meet basic needs is affordable); transparency (follows industry best practices and is easy for the public to understand and the City to maintain); promotes conservation (encourages water conservation and helps manage the demands on the water system); financial sustainability (recovers the full cost of operating the systems and keeps the infrastructure in good repair); and supports economic development (keeps Ottawa's rates comparable with similar Ontario municipalities).

In keeping with the City's Public Engagement Strategy, staff engaged One World Inc. to facilitate a consultation process that would ensure that affected and/or interested stakeholders would have meaningful, easy-to-access opportunities to provide input about the short-listed water, wastewater and stormwater rate structure options, with the understanding that staff would reflect the input received in the development of the final recommendations.

The consultations were conducted between March 21 and April 10, 2016, and included eight public meetings with an overall attendance of over 700 residents, a series of specific stakeholder consultations, including Business Improvement Areas, the Industrial/Commercial/Institutional (ICI) sector, local environmental groups and the City's Environmental Stewardship Advisory Committee; and an on-line survey in English and French that was open from March 21 to April 10, 2016 that received a total of 137 responses. As well, over 175 residents and community associations provided input to the City via email.

Approximately two-thirds of those who provided the City with feedback are on private wells and septic systems, meaning that they do not pay water bills and would, under the proposed new structures, begin to pay for stormwater services that have been part of the water bill since amalgamation. Therefore, the majority of the feedback provided was related to the proposed establishment of a separate stormwater fee.

Broadly speaking, for those receiving water bills, there was general support for changing the basis of the water/wastewater bill to recognize the fixed costs required to maintain the infrastructure, while ensuring that there continues to be a benefit to those that actively conserve water. Consultation participants suggested that there be a tier of rates for high water users, including industrial, commercial and institutional users, to encourage conservation. There was a general desire for rates to be more nuanced in order to reflect the differences in types of properties and services received.

For those residents who are not connected to City water and wastewater services, and who would be expected to begin to pay a stormwater fee if the options presented were adopted, the issue is more challenging. These residents are already required to fund their own private well and septic systems and drainage, as well as, in some circumstances private stormwater systems, and believe that the City should take this into consideration when establishing any new fee. Moreover, rural stormwater services are different than those provided in the urban area, and any fee should also take those differences into account. Finally, although the participants on private well and septic systems are more aware than most residents that the City's stormwater infrastructure helps protect their roads from flooding, ponding and increased icing in freeze/thaw cycles, they also asked that the City look at stormwater services and rates in the broader context of how rural issues are dealt with overall. There were a number of concerns identified with respect to the City's service standards for drainage, and ditch alteration requirements – matters that are not directly related to structuring a stormwater fee but that contribute to the broader sense that rural services are different, and at a lower standard than in the urban areas of Ottawa. There was a sense from some, that funding for stormwater infrastructure should come from property taxes (as part of the roads budget), and also a general desire, as noted above, for any fee to reflect the differences in types of properties and services received.

Staff reviewed all of the feedback and have developed a proposal for a new rate structure that they believe addresses as many concerns received by participants as possible. That said, they acknowledge that, in a municipality as complex and

geographically large and diverse as Ottawa, there is no perfect solution for funding these services within the current legislative framework and with current information and technologies that addresses all concerns that were raised.

After reviewing all the options and the public feedback, and in keeping with emerging municipal best practices, staff is proposing a new rate structure that will see separate fees for water, wastewater and stormwater services. This is intended to enhance accountability and transparency, and ensure that the cost of delivering the service and the recovery of that cost are directly related. This, in turn, will help the public see and understand the services they are paying for. As well, each of the proposed fees are either tiered or discounted, to reflect the cost of service received by each type of property as much as possible. It recognizes the importance of being affordable for residents.

The recommended new fee structures for both water and wastewater services include a fixed component and a consumption (volumetric) component. The fixed component is intended to reflect the fact that the overwhelming majority of the costs related to delivering reliable drinking water and sewer services are fixed – pipes and operators are needed to deliver water to and from homes and businesses no matter how much water is used. As well, wherever there are new subdivisions, homes and businesses, there is new water and wastewater infrastructure to build and then maintain. The volumetric component is included to continue to encourage water conservation and minimize the impact of a new rate structure on those households that use a minimal amount of water each month.

In brief, the proposed Water and Wastewater Rate structure recognizes, to the extent possible, the differences in properties and users by introducing a fixed charge based on meter size for water and wastewater and introducing a four-tiered system that recognizes and rewards water conservation, including a lifeline rate that discounts the rate for the first tier consumption level required for basic needs. There is an additional tier for heavy water users.

The proposed Stormwater Fee establishes a basic rate, with discounted rates for those not connected to City services and based on other factors, as follows:

- 3 classes of residential properties: single and semi-detached homes, townhouse/apartments and properties classified as farmland or forested land,

and further divides each property type into Urban Connected, Urban Unconnected, Rural Connected, and Rural Unconnected;

- 8 tiers of Industrial, Commercial and Institutional (ICI) properties: further divided into Urban Connected, Rural Connected and Rural Unconnected.
- Providing a 30% discount on the fee for properties that are not connected to City water and sewer services to reflect the fact that properties with a private septic system generally have more green space surrounding their home to accommodate a septic bed and a lower impervious-to-permeable surface ratio and that the benefit they receive is primarily from road and roadside drainage and not necessarily drainage from their property.
- Providing an additional 20% discount (such that the total discount would be 50%) for rural properties that are not connected to City water and sewer services to reflect the fact that, in general, the ratio of impervious to permeable surface is lower in rural areas as compared to urban areas, the stormwater infrastructure and level of service in rural areas is less complex than in urban areas (mostly ditches, culverts and drainage ponds), and that some drainage is already provided by private drainage tiles. Rural is defined as properties that are outside the urban boundaries defined in the City's Official Plan.

As this would be a new fee for those properties that are not connected to City services, staff is recommending to phase in the stormwater fees for the not connected properties over four years in 25% increments (i.e. 25% of the listed fee in year 1, 50% in year 2, 75% in year 3 and 100% in year 4). This would apply to both residential and ICI properties.

In addition, although not directly related to the Water, Wastewater and Stormwater Rate Review, staff is mindful of the feedback they received during the public consultation period with respect to related City services, in particular with ditching standards and the City's Ditch Alteration Policy. To this end, staff is proposing to review these issues in 2017, and make adjustments, where possible, to address a number of the concerns raised.

If the proposed new rate structure is adopted, approximately 85% of all households in Ottawa would see their total bill for water, wastewater and stormwater services either stay the same or increase or decrease slightly, within a \$2 margin each month. The

Industrial, Commercial and Institutional (ICI) will be affected to a somewhat greater degree. This sector currently pays for water, wastewater and stormwater services based on water consumption. Small businesses with proportionately higher water volume will see the greatest benefit. Businesses that don't rely on high water consumption, and therefore, currently pay very little for water will see the greatest impact from the shift to a stormwater fee based on assessment. Businesses that have a large or multiple water meters, but low water consumption will also see an increase due to the fact that the fixed charge is based on meter size.

The City is implementing a new water billing system that is expected to take effect at the beginning of 2018. Full implementation of the new rate structure will only be possible with the new system, as the current water billing system does not have the flexibility to accommodate the fixed plus volumetric block rate for water and wastewater or to include the revised stormwater fee.

All those connected to City sewer services will continue to pay their share of stormwater services through the sewer surcharge on the water bill in 2017. As mentioned earlier, the stormwater fee for those not connected to City services will be phased in on the property tax bill over four years, beginning in 2017. The revenue associated with these accounts will be deducted from the sewer surcharge paid by those receiving a water bill. Once the new water billing system is implemented, water bills will clearly show the water and wastewater rates and a separate stormwater fee. The new water bill is expected to be in place by January, 2018.

As technology changes over time, Council can revisit such issues as how to account for hard surfaces or encourage water conservation while retaining financial stability in addition to addressing any unanticipated consequences of this new rate structure.

The City's Fiscal Framework requires that user fees be reviewed periodically. To this end, staff is proposing that the Rate Structure be reviewed as part of each Long-Range Financial Plan (LRFP). The next Long-Range Financial Plan will be presented prior to the full implementation of this new structure, so the intent would be to include this in the LRFP following the full implementation.

## **BACKGROUND**

### **The Importance of Clean Water, Sanitation and Stormwater Protection to Citizens and the Environment**

Residents and businesses count on having access to safe, clean water, sanitation and flood-free roads and homes. These services are usually taken for granted. We are reminded of just how vital these services are to our quality of life by events such as the contamination of the water supply in Walkerton, Ontario in 2000, which influenced the current provincial regulatory framework for water services, the water crises in a number of indigenous communities throughout northern Canada, and local issues like the discharges to the Ottawa River from combined sewers, broken watermains, problems with communal wells and pockets of local flooding. They remind us of how vital these services are and how important it is that they remain functioning and well-maintained.

In Ontario, municipal governments are responsible for providing residents and businesses with safe, clean drinking water, with disposing of and treating wastewater and (together with local conservation authorities) managing stormwater to reduce flooding, pollution and erosion. Because of their importance to the health of the public and the environment, these services operate with service and infrastructure standards that are highly-regulated by the provincial and federal governments.

### **The City of Ottawa's Water, Wastewater and Stormwater Systems in Brief**

The City of Ottawa's water, wastewater and stormwater systems are large and complex. There are a number of factors contributing to this complexity: the City covers a large geographic area with significant rural, suburban and urban communities, each with different infrastructure profiles and needs, most of which feeds into either the two water treatment plants or the single wastewater treatment facility; Ottawa's natural features include an extensive network of rivers and streams, including portions of four major rivers (the Rideau, South Nation, Mississippi and Ottawa Rivers), and four major tributaries (the Carp, Jock and Castor Rivers and the Bear Brook), which need protection; and over 32,400 households and 5,800 businesses receive their drinking water from private wells, which means groundwater protection takes on added importance. As well, much of the infrastructure –built to serve for decades – was constructed by the 12 former municipal governments that make up the amalgamated City of Ottawa, meaning that infrastructure was built over an extended period of time to different standards, with different levels of investment and maintenance.

The City's water, wastewater and stormwater systems can be profiled at a high level as follows:

### **Drinking Water:**

Drinking water services ensures that over 225,000 households and businesses in the serviced areas of the City have clean, high-quality drinking water on demand. It is a 24-hour a day/7 days a week operation, with many safeguards and quality assurance processes. The system at a glance is:

- 226 km transmission mains, 2,779 km distribution pipes, 2 treatment plants, 225,000 water meters, 17 pump stations, 14 reservoirs, 5 communal well systems and 9 storage structures (plus some fleet and supporting IT infrastructure);
- 2016 operating budget is \$159.5 m, 2016 capital budget is \$68.3 million (with an additional \$12.4 m for integrated water and wastewater services, all for renewal of assets);

### **Wastewater:**

Wastewater services take care of the City's sanitary sewers, making sure that wastewater and, with combined sewers, stormwater, is properly cleaned and treated before it is discharged into the Ottawa River. The system at a glance is:

- 199 km trunk sewers, 1,818 km collection pipes, 706 km partially-separated pipes, 93 km forcemains, 65 pump stations, 8 regulator sites, 3 wastewater tanks, 5 odour control stations, 23 flow monitoring stations, 2 lagoons and 1 treatment plant (plus some fleet and supporting IT infrastructure);
- 2016 operating budget is \$128.3 m, 2016 capital budget is \$98.6 million (along with the additional \$12.4 m for integrated water and wastewater services noted above)

### **Stormwater:**

Stormwater services manage the safe transportation of rain and meltwater runoff throughout the City to protect roads, properties and local waterways from flooding and erosion and help with groundwater protection. The system at a glance is:

- 168 km stormwater trunks, 2,572 km collection pipes, 3 km stormwater forcemains, 1,218 medium culverts, 4,668 small culverts, 1,686 stormwater outfalls, 58 stormwater management structures, 10 pump stations, 158 stormwater ponds (plus some fleet and supporting IT infrastructure);
- 2016 operating budget is \$42.2 m, with \$21.6 m of that being a contribution to capital for the renewal of the infrastructure assets;

Successive City Councils have taken a number of actions to proactively ensure the long-term integrity of the City's infrastructure, including water services. Beginning in 2002, with the first Long-Range Financial Plan, followed by the Integrated Asset Management Strategy in 2003, the Capital Standards Review for Public Works Infrastructure in 2004, and the Comprehensive Asset Management Program in 2012, Councils have taken the necessary steps to ensure they and the public have a deeper understanding of the City's infrastructure needs, so that proper planning can inform Council's investments in maintenance, renewal and replacement as part of each annual budget.

In addition to the general plans, City Council has taken specific measures with respect to water, wastewater and stormwater infrastructure. As noted above, at amalgamation, the City did not have a clear picture of all of the assets it was now responsible for maintaining and replacing. The former municipalities each had different construction, maintenance and record-keeping standards and protocols. Moreover, much of the critical infrastructure is underground, making it more difficult to inspect and assess. As the information from the Asset Management strategies began to validate the nature and magnitude of the infrastructure challenges, the City developed a separate Long-Range Financial Plan for Rate-Supported Programs, first in 2004, and then updated in 2012.

As well, in recognition of the fact that water that is used, also needs to be treated, a 10-year Water Efficiency Strategy was adopted in 2005 and a 3-year Water Efficiency Plan was established in 2006 to protect the environment, meet legislative requirements and increase the lifespan of the City's water treatment plants and distribution network. The program was deemed successful, and the Phase 2 Water Efficiency Plan was adopted in 2013.

The City has also adopted the Ottawa River Action Plan, to reduce wastewater overflow into the Ottawa River, and included a Wet Weather Infrastructure Plan to assist with



future development of the City's stormwater infrastructure, as these are systems that are directly impacted by climate change.

All of these plans work together to form the basis of the City's Rate-Supported Operating and Capital Budgets.

It is important to understand that costs for operating, maintaining and, in particular, renewing these systems are not so much a function of how much water is used, but rather the size, age and complexity of the infrastructure and services. With that in mind, it is estimated that 90% of the costs of delivering water and sewer services are fixed, which is typical of most utilities. Furthermore, the infrastructure grows each year, as new areas are developed and the population grows.

Each year the City budgets for a certain revenue level based on estimated consumption, in order to fully recover costs. If the actual consumption declines, a revenue shortfall is created that must be recovered in the following year, in addition to recovering regular annual cost increases in that year. Having an exclusively consumption-based rate structure, combined with reductions in consumption while maintaining reliable and safe water systems creates inherent instability. **Table 1** below shows that, declining consumption, combined with yearly cost increases, the 6-7% rate increases that were forecasted in the City's Long Range Financial Plan are not yielding revenues sufficient to maintain the system. To compensate for this shortfall, the City has had to reduce operating costs, where possible, and reduce its contribution to capital which has resulted in increased debt and debt servicing costs in order to maintain assets in a state of good repair.

Table 1 – Water and Sewer Financial Trends (5-year) (in \$000's)

	2012 (Actual)	2013 (Actual)	2014 (Actual)	2015 (Actual)	2016 (Budget)
Operating	143,502	141,415	150,444	158,055	160,767
Debt Servicing	26,864	29,961	32,934	35,157	37,495
Contribution to Capital	109,935	121,267	132,136	134,102	132,366
	280,300	292,643	315,514	327,315	330,629
% Increase		4.4%	7.8%	3.7%	1.0%
Consumption based fees (water and sewer surcharge)	254,034	256,580	272,486	286,275	305,678
Fixed fee (fire supply charge)	8,801	9,553	10,433	11,223	11,024
Other Revenue (user fees)	13,155	13,036	13,746	13,933	13,927
	275,989	279,169	296,666	311,430	330,629
% Increase		1.2%	6.3%	5.0%	6.2%
Operating Surplus (Deficit)	<b>(4,310)</b>	<b>(13,474)</b>	<b>(18,848)</b>	<b>(15,884)</b>	-
Rate increases	6%	7%	7%	6%	6%
Consumption Volumes (cubic meter)	86.5M	81.8M	81.2M	80.2M	81.0M
% Decrease		-5.4%	-0.7%	-1.2%	1.0%

City Council takes all of these factors into consideration as it approves each annual rate budget. Once the budget is approved, all costs related to the drinking water, wastewater and stormwater services are apportioned to those people that pay for water (i.e. those who are connected to the City's water and wastewater systems) by means of a formula known as the rate structure.

### City Council Approves the Budget, the Rate Structure Determines How the Water, Wastewater and Stormwater Services are Funded

In Ontario, municipalities have only four major tools with which to fund their services: property taxes, user fees, area levies, and development charges.

The *Municipal Act, 2001* requires that all municipal user fees be established in a way that there is a direct relationship between the fees being charged and the cost of the service being provided. User fees cannot be used as an indirect tax to meet other needs.

At this point in time, all water, wastewater and stormwater services are funded through the water and sewer bill, which is paid by the 218,595 households and 8,213 businesses that are connected directly to the City's piped systems.

There are two key challenges with the current water and sewer rate structure:

- a) Revenue instability – the water/wastewater rate is based 100% on water consumption when in fact only 10% of the costs actually vary with consumption.
- b) Alignment with benefit received – there is a need to align user fees directly with the benefit received, consistent with the user fee principles in the *Municipal Act, 2001* and the City's Fiscal Framework. Under the current structure, only those that pay a water bill are paying for City stormwater services, even though stormwater runoff issues are more related to impervious surfaces like roads, buildings and paved surfaces than to water use. Further, almost all properties in the City of Ottawa receive some direct benefit from the City's stormwater management infrastructure and services while not all properties contribute to the costs.

This report proposes a new rate structure, one that more accurately reflects the nature of water and wastewater services, and introduces a change to how stormwater services are funded. To provide context for the proposed new rate structure and stormwater funding, it may be useful to understand how the current rate structure came to be and the factors that have contributed to the need to change the rate structure for the long-term sustainability of all of the City's water services.

### **History of the 2001-2016 Water, Wastewater and Stormwater Rate Structure**

As indicated above, in 2001, the Ontario government merged 12 local governments to form what is now the City of Ottawa. On January 26, 2000, the provincial government appointed the Ottawa Transition Board, to oversee the establishment of the structure of the new municipality, including the services that the new City would provide and how those services would be funded.

To address taxation matters, the Ottawa Transition Board secured Hemson Consulting to analyse and recommend a new tax, levy and fee structure for the new City. Their recommendations, commonly referred to as the Hemson Report, were presented to the Ottawa Transition Board on January 25, 2001.

The Hemson Report recognized the challenges inherent in establishing a single municipal government from twelve. Specifically with respect to water, storm and sanitary services, Hemson noted as follows (Slides 10-11):

- Each municipality has unique levy characteristics;
- Most fund portions of Storm & Sanitary costs through general levy as well as local sewer surcharge;
- Water rates and sewer surcharge utility rate structure set by RMOC (Regional Municipality of Ottawa-Carleton) - \$98 million in 2000;
- Area municipalities also add surcharges (from 30% to 67%) 30 Million in 2000;
- Area municipal sewer surcharges used for sanitary as well as storm water management;
- Sewer surcharge does not cover total costs in all municipalities - balance on levy (e.g. for debt repayment).

With respect to sewer surcharge policies for the new City, the Hemson Report identified that one of the key questions for the new City was whether or not stormwater management should be funded from the sewer surcharge. It noted that amalgamation changed operating conditions such that program planning and operations for sanitary and stormwater services could be harmonized and that priority-setting, budgeting and accountability rested with one Council. Given those conditions, however, the Hemson Report nonetheless recommended that a separate rural and urban stormwater levy be established because the storm water program related more closely to road, parks and open space programs than to water use, having one funding source would simplify accountability and administration, and an urban/rural split would reflect the different service standards.

On January 25, 2001, the Ottawa Transition Board approved that most of the Hemson Report recommendations be forwarded to the new City Council for their consideration,

with the rural/urban stormwater fee being a noted exception. The Transition Board recommended that “the storm water management and sanitary sewerage programs be totally funded from sewer surcharges”. There is no record outlining why the Transition Board made this change.

On March 6, 2001, the new City Council first received the report Financing Methods – Funding City Services (ACS2001-CRS-FIN-0015), which also recommended the harmonized sewer surcharge that removed all storm and sanitary sewer costs that were on the property tax bill in some of the former municipalities and added it to the sewer surcharge rate on the water bill, in keeping with the Ottawa Transition Board recommendations. City Council tabled this report for further discussion, and approved this recommendation on July 11, 2001.

The result of Council’s decision to take stormwater services off of the property tax bill and place it onto water/sewer bills was an average decrease in property taxes of approximately \$43 for residents in the former urban and suburban municipalities and a decrease of \$18 for residents in the former rural municipalities. When approved in 2001, the estimated combined sanitary and stormwater rate was 166% of the water bill. It should be noted that there are no comparable records from the pre-amalgamation municipalities indicating how much each of them spent on an annual basis for building and maintaining water, wastewater and stormwater services.

Today, the sewer surcharge is 117% of the water rate. It continues to cover the costs for both sanitary and stormwater management services. Water services continue to be charged on a 100% uniform consumption basis, i.e. a set dollar amount for each cubic meter of metered water usage.

Water/sewer bills are paid by approximately 90% of Ottawa households and businesses.

### **The Need for a New Rate Structure – 2008-2015**

In 2008, the Office of the Auditor General conducted an audit of the City of Ottawa Water Rate. The final audit report, tabled with City Council on October 22, 2008, noted the inherent weakness in the City’s consumption-based model, whereby any reduction in consumption affects revenues. The Auditor General recommended “that the City consider establishing water rates based on a fixed meter charge plus a consumption charge”, noting that this model “provides for more stable revenue generation”.

In response to the audit, City staff committed to undertaking a full review of the rate structure, providing details on the review to City Council in June 2009 in the Review of the Water, Sanitary and Storm Rate Structure report (ACS2009-ICS-WWS-015), which included a public consultation plan.

In April 2010, staff submitted the Review of the Water, Sanitary and Stormwater Rate Structure (ACS2010-ICS-ESD-0002) report to the Planning and Environment Committee. The report recommended the introduction of a rate structure that would have separate “base plus volumetric” fees for both drinking water services and wastewater and drainage services [a structure which was already in use in Vancouver, Calgary, Edmonton, Winnipeg, Region of Halton (Oakville, Burlington etc.), Region of Durham (Oshawa, Whitby etc.), Halifax, Quebec City and parts of Montreal] as well as further studying how best to fund stormwater and drainage costs and how to recover costs for bulk water sales to Russell Township. On April 28, 2010, City Council deferred the recommendations in the report until such time as the City’s advanced meter reading infrastructure (AMR), including a new water billing system, was implemented, to allow Council to have a greater range of options to develop a structure that ‘could better meet the needs of the Citizens of Ottawa’.

During the 2015 Rate-Supported Budget discussions, concern was raised about the variability of year over year water consumption and the resulting variances between budgeted and actual revenues. In May 2015, the Environment Committee and Council directed staff to return to Council by Q1 2016 with an updated proposal for a new water, wastewater and stormwater rate structure for Council’s consideration. However, due to the extended consultations and resulting analysis and revisions to the recommended rate structure this date was moved to Q4 2016.

Further, as the AMR project is now substantially complete, and the City is also implementing a new water billing system that can support alternative rate structures, staff is confident that the tools being put in place will provide Council with the previously requested flexibility.

## **Developing the Rate Structure Proposal – First Steps**

The objective of the Water, Wastewater and Stormwater Rate Review was to establish a new rate structure that is fair, equitable and ensures a stable and sustainable funding mechanism for the City to support reliable, quality services and maintain assets in a state of good repair.

The Review was led by Finance staff, with the advice of the City's Environmental Services and Infrastructure Services staff and the services of the engineering firm AECOM to assess the rate structure options for stormwater specifically, which they had done for a number of Ontario municipalities. The review included the following activities:

### Data Collection:

- A detailed review and analysis of costs for delivering water, wastewater and stormwater services, including an analysis to permit separate costs attributable to each service for both operating and capital expenditures.
- An analysis of accounts and properties from the water billing system, GIS/GeoOttawa, Municipal Property Assessment Corporation (MPAC), VTax (property tax system) to obtain as much information as possible with respect to parcels, dwelling units, impervious surfaces, parcel sizes, land use codes, property types, consumption, assessment values, rural/urban zones, meter sizes, etc.
- A review of industry research and best practices, and models/analysis from other municipalities, as well as rate structures and cost recovery models from academia, industry and research associations.

### Preliminary Rate Structure Options Assessment:

- An evaluation of various water, wastewater and stormwater rate structures methodologies, specifically, a review of ten different methodologies for water and wastewater, and five methodologies for a stormwater fee.
- Detailed financial, impact and sensitivity analyses of multiple rate structure options that maintain overall revenue neutrality for each of the water, wastewater

and stormwater services, including an assessment of the impact on various classes and types of users.

Once staff had reviewed all of the research, they short-listed one water and wastewater and three stormwater rate structure options that they believed would be best suited to the City of Ottawa and that would be in keeping with Council's Fiscal Framework and other long-range financial plans and based on the following six Council-approved principles:

- Fairness and equity (services are paid for in accordance with the benefit received);
- Affordability (ensures that the level of consumption required to meet basic needs is affordable);
- Transparency (follows industry best practices and is easy for the public to understand and the City to maintain);
- Promote conservation (encourages water conservation and helps manage the demands on the water system);
- Financial sustainability (recovers the full cost of operating the systems and keeps the infrastructure in good repair); and
- Support economic development (keeps Ottawa's rates comparable with similar Ontario municipalities).

### **Developing This Rate Structure Proposal – What the Public Said**

In keeping with the City's Public Engagement Strategy, staff engaged One World Inc. to facilitate a consultation process that would ensure that affected and/or interested stakeholders would have meaningful, easy-to-access opportunities to provide input about the proposed water, wastewater and stormwater rate structure options, with the understanding that staff would reflect the input received in the development of the final recommendations.



The consultations were conducted between March 21 and April 10, 2016, as follows:

- Eight public meetings were held across the City between March 21 and April 7, 2016. Over 700 residents attended these meetings.
- A series of consultations were held with specific stakeholder groups, including Business Improvement Areas, the Industrial/Commercial/Institutional sector, as well as local environmental groups and the City's Environmental Stewardship Advisory Committee.
- An on-line survey in English and French that was open from March 21 to April 10, 2016. A total of 137 responses were received.
- 175 residents and community associations provided input to the City via email.

Approximately two-thirds of the people who provided feedback are on private wells and septic systems, meaning that they do not pay water bills and would, under the proposed new structures, begin to pay for stormwater services that have been part of the water bill since amalgamation. Because the consultation participants were not a representative cross-section of Ottawa's population, the focus of the consultation report is feedback related to the proposal to create a separate stormwater fee.

The results of this first consultation are reflected in One World Inc.'s report "[What We Heard](#)", but can be summarized at a high level, as follows:

- The public had different interpretations of what each of the six principles meant, with understandable differences in focus between those who currently receive a water bill and those who do not.
- There was general support for changing the basis of the water/wastewater bill so that users pay for services they receive, recognizing both the fixed costs required to maintain the infrastructure while retaining some benefit for those that actively conserve water.
- There was a general desire for rates to be more nuanced in order to reflect the differences in types of properties and services.
- For those residents who do not receive a water bill, and who would be expected to begin to pay a stormwater fee if the options presented were

adopted, the issue was more challenging, as these residents are already required to fund their own private well and septic systems and drainage and, in some circumstances, private stormwater systems. Although the participants on private well and septic systems are more aware than most residents that the City's stormwater infrastructure helps protect their roads from flooding, ponding and increased icing in freeze/thaw cycles, rural stormwater services are different than those provided in the urban area and there was a desire that the City look at stormwater services and rates in the broader context of how rural issues are dealt with overall.

- There was a general desire, as noted above, for fees to reflect the differences in types of properties and services received.
- There was also a sense from some that funding for stormwater infrastructure should come from property taxes (as part of the roads budget).

As well, there were a number of concerns identified during the consultation sessions about the City's service standards for drainage, and ditch alteration requirements – matters that are not directly related to structuring a stormwater fee but that contribute to the broader sense that rural services are different, and at a lower standard than in the urban areas of Ottawa.

### **Developing This Rate Structure Proposal – Addressing Public Concerns Where Possible while Safeguarding Long-term Sustainability of the City's Water Services**

Staff received the feedback from the consultation, and undertook an additional financial analysis and assessment of alternative approaches that could address key concerns raised by stakeholders.

Ultimately, staff believes that the recommended option addresses a number of the key concerns, and balances the key principles supported by stakeholders: fairness, equity, affordability, transparency, financial sustainability, conservation and, from the City's perspective, administrative efficiency. That said, staff equally recognizes that, in a municipality as complex and geographically large and diverse as Ottawa, there is no perfect solution that addresses all concerns that were raised during the consultations for funding these services within the current legislative framework and with current information and technologies.

The revised rate structure proposal, which is described in more detail in the Discussion section of this report:

- Recognizes, to the extent possible, the differences in properties and users by creating a number of different fee categories, as follows:
  - Introducing a fixed charge based on meter size for water and wastewater;
  - Introducing a four-tiered system that recognizes and rewards water conservation, including a lifeline rate that discounts the rate for the first tier consumption level required for basic needs;
  - Introducing a stormwater fee with discounted rates for those not connected to City services and based on other factors, as follows:
    - Establishing 3 classes of residential properties: single and semi-detached homes, townhouse/apartments and properties classified as farmland or forested land, and further divides each property type into Urban Connected, Urban Unconnected, Rural Connected, and Rural Unconnected;
    - Establishing 8 tiers of Industrial, Commercial and Institutional (ICI) properties: further divided into Urban Connected, Rural Connected and Rural Unconnected.
- Enhances transparency and accountability by creating separate fee structures for each of the water, wastewater and stormwater systems; and
- Recognizes the importance of being affordable for residents.

The result of the proposed changes to the rate structure is that over 85% of all households will see minor changes to what they currently pay, with the exception of low-volume water users, the industrial, commercial and institutional (ICI) sector and residents who are not connected to the City's water and wastewater systems. The specific impacts for each are outlined in the related section of the report.

For those residents and businesses that are not connected to City services, the stormwater fee will be a new charge on their tax bill. In recognition that this is a new fee

for these properties, the City is also proposing that the structure be phased in over a four-year period, beginning in 2017 through to 2020.

It should be noted that drainage works constructed pursuant to the *Drainage Act* are not included in the proposed rate for stormwater, as these are governed by separate provincial legislation and address site-specific issues and needs rather than general issues and needs. Most drainage works constructed pursuant to the *Drainage Act* are located on private property in rural agricultural areas and are either ditches or closed systems such as pipes or tiles buried in the ground. The majority have been constructed to improve the drainage of agricultural land by serving as the discharge point for private agricultural tile drainage systems. Specifically, drainage works which are created under the authority of the *Drainage Act* R.S.O. 1990, c. D.17 (provincial legislation) are required to be administered by municipalities in Ontario on behalf of the Province. Landowners who need to solve a drainage problem may submit a prescribed petition under the *Drainage Act* to their local municipality, requesting the establishment of municipal drains drainage works. If certain criteria are met, the municipality appoints an engineer who prepares a report, identifying the proposed solution to the problem and how the costs will be shared. After all appeals have been heard and dealt with, the municipality passes a by-law, adopting the engineer's report. The municipality then has the authority and the responsibility to construct the project. The cost of the work is assessed to the lands in the watershed in the same ratios as contained within the engineer's report and added to the property owner's tax bill. This cost does not get included in the City's stormwater management rate. Similarly, drainage works constructed through mutual agreement between landowners under the *Drainage Act* are also not included in the City's stormwater management rate.

Finally, consultation participants requested that the public have more than one week to respond to what the City is proposing. To address that request, the City is releasing its proposal several weeks in advance of the Committee and Council meetings to provide residents and businesses with more time to review the new proposal and comment on the recommendations.

## **DISCUSSION**

The City of Ottawa provides drinking water, wastewater and stormwater services to residents, industrial, commercial and institutional (ICI) organizations, as well as bulk water services to the Township of Russell and Flusher Hydrant permit holders. As indicated above, all of the City of Ottawa's water services are currently funded on a full cost-recovery basis by means of a user fee paid by those residents and businesses that are directly connected to the City's water and wastewater pipe and treatment systems. The specific fees paid are determined by two things. First, the Rate Budget is considered and approved by City Council every year based on the Long-Range Financial Plan requirements, and this determines how much the City will spend on these services. Then, the City uses the Rate Structure, which is a mathematical formula, to determine the share of the budget that each user will pay on their water bill.

The proposed new structure, which reflects public feedback, recommends a tiered approach for each water service, on a full cost recovery basis. If adopted, the new structure ensures that there will be no cross-subsidization or indirect taxation across property taxes and water, wastewater and stormwater fees. Staff believes it meets the goals of the Water, Wastewater and Stormwater Rate Review to the degree possible, namely that the new rate structure will be fair, equitable and affordable for residents, while ensuring a stable and sustainable funding mechanism that supports reliable, quality services and maintains these essential assets in a state of good repair.

### **The Current Rate Structure:**

The table below identifies all of the direct costs (compensation, materials, hydro, contribution to reserves to fund infrastructure requirements, debt service costs, etc) and indirect costs (corporate support services such as communication, finance, human resources, etc) attributable to each of the water, wastewater, and stormwater services.

**Table 2 – 2016 Water, Wastewater and Stormwater Budget (millions \$)**

Cost	Water	Wastewater	Stormwater	Total	%
Compensation	\$36	\$23	\$5	\$64	19%
Materials & Services	\$23	\$28	\$8	\$59	18%
Support Services	\$21	\$9	\$7	\$37	11%
Capital Contribution	\$62	\$49	\$21	\$132	40%
Debt Servicing Costs	\$18	\$19	\$1	\$38	12%
<b>Total</b>	<b>\$160</b>	<b>\$128</b>	<b>\$42</b>	<b>\$330</b>	<b>100%</b>
<b>%</b>	<b>48%</b>	<b>39%</b>	<b>13%</b>	<b>100%</b>	

Approximately 90% of revenues supporting water, wastewater and stormwater costs come from the water and sewer surcharge. The remaining 10% comes from the fire supply charge and user fees for specific one-time services. The City currently uses a uniform volumetric rate structure for the water and sewer surcharge, whereby all customer classes pay the same rate per cubic meter consumed. The sewer surcharge is the current method used to recover costs for both wastewater and stormwater services delivered by the City.

**Table 3 – Current Water and Sewer Rate Structure (2016 Rates)**

Service	Fee (per cubic meter)
Water	<b>\$1.801</b>
Sewer Surcharge*	<b>\$2.107*</b>

**\*For Sewer Surcharge, Wastewater \$1.571 per cubic meter, Stormwater \$0.536 per cubic meter**

As indicated above, there are two key challenges with the current water and sewer rate structure: it is based 100% on water consumption when in fact only 10% of the costs actually vary with consumption and there is no correlation between the benefit received from stormwater services and the way in which it is currently charged, whereby only those that pay a water bill are paying for these services even though almost all properties receive a direct benefit from stormwater management.

### **The Proposed New Rate Structure – Aligning Fees Directly with the Service Provided**

To enhance accountability and transparency, a separate fee is being recommended for each service. This will ensure that the cost of delivering the service and the recovery of that cost are directly related. This will help the public see and understand the services they are paying for.

Therefore, the proposal would establish three fees:

1. A Water Rate for Drinking Water Services;
2. A Wastewater Rate for Wastewater Services; and
3. A Stormwater Fee for Stormwater Services.

The Water and Wastewater Fees would be collected through the water bill, meaning that only those who are connected to these services pay for them.

The Stormwater Fee would be apportioned to all residents and businesses, to reflect the benefit received from stormwater infrastructure and services as much as possible. The only exclusion would be for properties classified as farmland and forested land, which have largely permeable surfaces. Furthermore, the new Stormwater Fee structure includes a series of recommended discounts that reflect the level of services received based on the general permeability of the surfaces of the property classes and the different drainage requirements for property owners who are serviced by the City's water and wastewater infrastructure and those who use private well and septic systems.

The majority of households – approximately 85% -- will see little or no change on their water bill, or will see a decrease. Staff recognizes that those residents and businesses who use private wells and septic systems will be impacted by this change. To help with the transition to a new fee structure, staff is also recommending that it be phased in over a four-year period, such that the full fee would only be charged in 2020, allowing families and businesses to budget and plan for this adjustment incrementally.

#### **Proposal for New Water and Wastewater Rate Structures:**

The recommended fee structures for both water and wastewater services include a fixed component and a consumption (volumetric) component.

The fixed component is intended to reflect the fact that the overwhelming majority of the costs related to delivering reliable drinking water and sewer services are fixed – pipes and operators are needed to deliver water to and from homes and businesses no matter how much water is used. As well, wherever there are new subdivisions, homes and businesses, there is new water and wastewater infrastructure to build and then maintain.

The volumetric component is included to continue to encourage water conservation. Even though the population has increased, the City's total water consumption levels are comparable to 1980 levels. Water conservation remains an important tool to help protect this resource and extend the life of the City's infrastructure. Ottawa and other municipalities across North America have experienced declining levels of water consumption over the past several years despite continued growth in the number of households being serviced. Since 2002, average annual water consumption in Ottawa has decreased by 30%, due to a combination of the increased availability of water efficient appliances and fixtures, changes in building codes, and greater conservation awareness.

The challenge for staff was to try to find the optimal ratio between the fixed portion of a rate and the consumption portion of a rate. This issue was raised as part of the public consultations. Most agreed that adding a fixed fee provides better alignment between the true nature of the costs of the services and the revenue streams, thereby improving revenue stability. However, setting a fixed rate too high discourages conservation and has an impact on affordability and consumers' ability to reduce their bills by changing consumption habits. Therefore, it was important to achieve a balance between the fixed and volumetric charge. Consultation participants also suggested that there be a tier of rates for high water users, including industrial, commercial and institutional users, to encourage conservation.

To assist in determining the appropriate level for each of the fixed and consumption portions of the rates, staff reviewed the guidelines published by the Canadian Water and Wastewater Association (CWWA) and the American Water Works Association (AWWA), both of which support a two-part fee that includes a fixed charge and volumetric rate.

Studies show that to promote conservation, the volumetric charge should represent at a minimum 65% of the fee, so the optimal level to set a fixed charge is between 20% -



35%. Staff is therefore, recommending that the City establish the fixed charge initially at the low end of the range, which is 20%, with the option to phase in increases to this fixed charge percentage to a maximum of 35% if required and approved by Council as part of a future Long-Range Financial Plan or annual budget, while reducing the volumetric portion to a minimum of 65%.

### **The Fixed Portion of Water and Wastewater Fees**

There are several ways to incorporate a fixed charge into a rate structure: flat rate (same fee for all customers), one based on meter size (fee increases with larger meter sizes), and minimum charges (minimum bill amount based a specified water allowance). The fixed fee based on meter size is the most commonly used in recognition of the principle that the larger the meter size, the greater the demand placed on the City's systems from both an infrastructure and service perspective. Regardless of the amount of water that a customer actually uses, the City is still required to maintain the infrastructure and the capacity to serve that customer based on their meter size.

Once the portion of the fixed cost was established, staff reviewed how to best allocate those costs among customers based on meter size. The AWWA / CWWA provide "meter size equivalency (ME) factors," a scale of factors to be applied to the base charge of the smallest meter to determine the minimum that should be charged to larger connections. Based on the AWWA meter capacity ratios, a 40mm meter would have five times the capacity equivalency of a 15mm meter.

The following table provides the number of meters by size (as at December 31, 2015), the recommended ME ratios based on AWWA / CWWA guideline standards and the estimated fixed fee per meter per month, based on a 20% fixed fee:

**Table 4 – Estimated Monthly Fixed Fee Per Meter Size for Water and Wastewater (Based on 2016 Rates)**

Typical Customer	Meter Size	# Meters in Service	AWWA ME Ratios	Fixed Charge per Month	
				Water \$	Wastewater \$
Residential & Small Commercial	15 mm	214,304	1.0	9.14	8.11
	20 mm	4,051	1.5	13.71	12.17
Small Commercial & Multi-Residential	25 mm	4,215	2.5	22.85	20.28
	40 mm	2,674	5.0	45.70	40.55
	50 mm	1,089	8.0	73.12	64.88
	75 mm	307	15.0	137.10	121.65
Large Commercial, Institutional & Industrial	100 mm	98	25.0	228.50	202.75
	150 mm	27	50.0	457.00	405.50
	200 mm	22	80.0	731.20	648.80
	250 mm	21	115.0	1,051.10	932.65
Outside-City Customer	400 mm	1	458.0	4,186.12	N/A

This fixed charge for water and wastewater does not include the fire supply charge, which is also determined by meter size and will continue to be charged on that basis.

**The Consumption (Volumetric) Portion of Water and Wastewater Fees**

Participants in the public consultations asked that the consumption portion of the water and wastewater fees be more tiered to capture the different kinds of households and businesses, and to ensure that the industrial, commercial and institutional (ICI) sector is paying appropriately if they are high-volume users. They also wanted an additional tier for high-volume residential users to promote conservation. This proposal addresses that feedback.

Although it is common for municipalities to establish two different rate structures for the residential sector and for the industrial, commercial and institutional (ICI) sector, in Ottawa, the majority of the water billing accounts are residential, with a large number of small businesses, and a few very large industrial accounts. Therefore, staff is recommending to establish one rate structure with multiple tiers to accommodate both sectors, including Russell Township and Flusher Hydrant permit holders.

These tiers each have different rates which have been established to encourage conservation and minimize the impact on low volume users. The rates, referred to as a volumetric inclining block rate, increase as consumption increases at established thresholds. The lowest tier (or block), which is referred to as a “lifeline rate”, would be priced at half of the price of the next tier. The lifeline tier is equal to the amount a typical family requires to meet basic needs, which is estimated at 6 cubic meters per month (or 50 litres a day per person for a four person family). Establishing the lifeline rate reduces the impact of the fixed rate on low volume consumers.

Most residents consume between 6 to 25 cubic meters per month. Residential consumption above 25 cubic meters is considered high consumption, while in the ICI (Industrial, Commercial, Institutional) sector consumption above 180 cubic meters is considered high. Therefore, the recommended block thresholds for the volumetric rate would be as follows:

<b>Monthly Block/Tier</b>	<b>Description</b>
<b>0 - 6 cubic meter</b>	Lifeline level for basic needs
<b>6- 25 cubic meter</b>	Average residential consumption
<b>25 - 180 cubic meter</b>	High residential /average ICI consumption
<b>&gt;180 cubic meter</b>	High ICI consumption

The following table lists the number of residential, multi-residential and ICI accounts that would fall within each of the four recommended thresholds:

**Table 5 – Distribution of Consumption Levels**

<b>Total Monthly Consumption – Residential &amp; Multi-Residential</b>		
<b>Consumption</b>	<b>Number of Accounts</b>	<b>Percentage of Accounts</b>
<b>0 - 6 cubic meter</b>	28,376	13%
<b>6- 25 cubic meter</b>	159,436	73%
<b>25 - 180 cubic meter</b>	28,687	13%
<b>&gt;180 cubic meter</b>	2,096	1%
	<b>218,595</b>	<b>100%</b>

<b>Total Monthly Consumption – ICI</b>		
<b>Consumption</b>	<b>Number of Accounts</b>	<b>Percentage of Accounts</b>
<b>0 - 6 cubic meter</b>	1,299	16%
<b>6- 25 cubic meter</b>	1,885	23%
<b>25 - 180 cubic meter</b>	3,163	39%
<b>&gt;180 cubic meter</b>	1,866	23%
	<b>8,213</b>	<b>100%</b>

Based on an 80% volumetric fee, using the four block inclining rate structure, the estimated volumetric rate for water and wastewater would be as follows:

**Table 6 – Estimated Volumetric Rates (Based on 2016 Budget)**

Rate Structure	Water (\$)	Wastewater (\$)	Total (\$)
Current Uniform Rate (per cubic meter)	1.801	1.571	3.372
Proposed Inclining Block Rate:			
Tier 1 (0 – 6 cubic meter)	0.721	0.624	1.345
Tier 2 (6 – 25 cubic meter)	1.441	1.248	2.689
Tier 3 (25 – 180 cubic meter)	1.586	1.373	2.959
Tier 4 (>180 cubic meter)	1.768	1.545	3.313

Tier 1 is the lifeline block and the rate is set at 50% of the next level for both water and wastewater. The rate at Tier 4 (the highest block) is lower than the current volumetric rate because of the introduction of the fixed charge which represents 20% of the overall fee.

All consumers, residential and ICI will pay the lifeline rate for the first 6 cubic meters, and then the next tier for any consumption above 6 cubic meters, and so on up to tier 4, as applicable.

**A New Fixed Charge/Consumption Charge Rate Structure for Water/Wastewater is Revenue Neutral**

Combining the total revenue from the fixed charge to the total revenue from the volumetric charge (based on consumption volumes used in the 2016 budget) using the new rate structure, will generate the same revenue as the current rate structure, assuming consumption remains the same. In the proposed structure, if consumption drops 20% of water/wastewater revenue (the fixed portion) will not be affected but the remaining 80% (the variable portion) would decrease. This new rate structure provides a balance between increased revenue stability and promoting conservation.

**Table 7 – Comparison of Total Revenue Using Current Versus New Rate Structure**

Rate/Tier	Water (\$000)	Wastewater (\$000)	Total Revenue (\$000)	Consumption ('000 cubic meter)	Rate
<b>Current Uniform Volumetric</b>					
Current Rate	\$145,890	\$124,549	\$270,439	81,005	\$3.372
<b>Proposed Fixed Plus Inclining Block Rate</b>					
Fixed charge	\$29,178	\$25,653	\$54,831	-	
1 (0 – 6 cubic meter)	\$11,085	\$9,545	\$20,630	15,376	\$1.345
2 (6 – 25 cubic meter)	\$33,599	\$29,004	\$62,603	23,317	\$2.689
3 (25 – 180 cubic meter)	\$24,224	\$20,734	\$44,958	15,273	\$2.959
4 (>180 cubic meter)	\$47,804	\$39,613	\$87,417	27,039	\$3.313
<b>Total</b>	<b>\$145,890</b>	<b>\$124,549</b>	<b>\$270,439</b>	<b>81,005</b>	

**What the new Fixed Charge/Consumption Charge Rate Structure for Water/Wastewater Will Mean to the Average Water Bill**

Moving 20% of the current fee to a fixed charge will have a minimal impact on the average residential consumer, even with the proposed stormwater fee recommended in the next section of this report. Approximately 85 per cent of households will see their total bill for water, wastewater and stormwater services either stay the same, decrease or increase slightly, by a factor of less than \$2 per month. Multi-residential buildings that have one meter for all residential units will receive a greater benefit from a fixed charge. However, very low volume consumers will experience some impact, because they will now be paying a minimum of \$17.25 each month as a fixed fee. However, this has been partially offset by reducing the consumption rate, particularly for the lowest tiered rate.

Document 2 provides an illustration how the current fee structure and the new fee compare for a variety of residential and ICI water consumption levels, also taking into account the effects of the new stormwater rate structure. Single detached homes that

consume less than 12 cubic meters per month will see an increase in their water bill of between \$3 to \$13 per month due to the impact of the fixed charge.

**Proposed Discounted Flat Stormwater Rate Structure:**

Stormwater Services manage the safe transportation of rain and meltwater runoff across the city. As described in the Background section of this report, the City of Ottawa maintains a vast network of stormwater pipes, culverts, catchbasins, ditches and stormwater ponds to protect roads, properties and local waterways from flooding and erosion. Specifically, stormwater services:

- Protect private and public assets from local flooding and erosion damage;
- Keep pollutants out of the subsurface aquifers and natural surface water corridors;
- Protect natural heritage features such as wetlands and riparian habitat; and
- Provide drainage to facilitate safe vehicle access to property, business, transportation of goods and emergency services.

All properties with impervious areas (ie. hard surface such as roof tops, driveways, parking lots) contribute to stormwater runoff. Roadways also contribute to runoff, particularly in un-serviced areas where the stormwater infrastructure is primarily comprised of ditches and culverts. Road drainage is an urban requirement too.

**Current Stormwater Costs**

In 2016, it cost \$42 million to operate and maintain the stormwater services and infrastructure for the City. Since this is such a capital intensive service, half of the \$42 million reflects a contribution to capital each year for renewal of assets. The remainder is spent on the operations and maintenance of the stormwater system (e.g. linear network operations, surface water quality, stormwater management, drainage, engineering services, business services, infrastructure maintenance, water quality monitoring, erosion monitoring, etc.).

The level of service and type of infrastructure in the rural areas, which is primarily comprised of ditches and culverts, is less complex than that in urban areas, and covers a significantly broader geographic area with fewer residents. Stormwater costs in urban

areas amounts to \$34 million while \$8 million is spent in rural areas. The cost of stormwater can be broken down as follows:

**Table 8 - Allocation of Stormwater Costs (Based on 2016 Budget)**

Category	Urban (\$000)	Rural (\$000)	Total (\$000)
Surface Water Management Services	2,938	1,064	4,002
Wastewater Services	5,292	-	5,292
Technical and Business Support	752	143	895
Culvert and Ditch Maintenance	3,703	2,039	5,742
Administration and Program Support	3,262	889	4,151
Other Revenue	(344)	(218)	(562)
Debt Servicing	1,123	-	1,123
Capital Contribution	17,077	4,490	21,567
<b>Total</b>	<b>33,803</b>	<b>8,407</b>	<b>42,210</b>
<b>% of Stormwater Costs</b>	<b>80%</b>	<b>20%</b>	<b>100%</b>

It should be noted that, although residents on private stormwater systems do receive some overall benefits from the City system, either from use of the roadways or private stormwater systems that eventually flow to roadways, roadside ditches and watercourses that must be maintained by the City, the services provided are less for these households than those in the urban area.

**The Need to Change How Stormwater Services are Funded: There is No Direct Relationship Between Water Consumption and Stormwater Management.**

Prior to amalgamation, all or part of the cost of stormwater management in each former municipality was funded through the local property tax bill. At amalgamation, as outlined earlier, these charges were transferred to the sewer surcharge portion of water bills even though stormwater costs have no correlation to water consumption and many properties that benefit from stormwater infrastructure, such as parking lots and properties on a private well and septic system, do not receive a water bill. The result of



this decision is that the fees that fund these services are not apportioned to all properties receiving stormwater services, which is contrary to the general principles governing user fees and the City's Fiscal Framework (which state that service fees will be implemented where individual beneficiaries of the service can be identified).

### **How to Fund Stormwater Services: First Steps: Establish a Fee or Add to Property Taxes?**

Municipal best practices are moving towards funding stormwater costs by way of a dedicated fee. As articulated in the September 2016 report, "New Solutions for Sustainable Stormwater Management in Canada" by Sustainable Prosperity (an independent national thinktank affiliated with the University of Ottawa focused on a green economy), "the benefits of implementing a stormwater fee include:

- **Dedicated Revenue Stream:** Revenues collected through user fees are allocated back to providing the service for which they are charged, creating a dedicated revenue stream for funding the stormwater program. It no longer has to compete with other local government services for budget space and can better account for adaptation and renewal requirements as they arise.
- **Greater Awareness & Transparency:** A stormwater user fee shows property owners exactly how much they are paying for this service, creating greater awareness and understanding of not just each individual's contribution of stormwater to the system, but the overall system requirements in terms of capital and operations and maintenance costs.
- **Fair Assignment of Costs:** Charging each property owner based on the estimated amount of stormwater services used is a fairer assignment of cost than charges based on assessed property values or water consumption, which are unrelated to the amount of stormwater the site generates.
- **Economic Incentive:** Implementing stormwater user fees can also create a potential economic incentive for consumers to reduce their monthly costs by reducing the amount of stormwater runoff they generate."

*"New Solutions for Sustainable Stormwater Management in Canada",  
Sustainable Prosperity, Sara Jane O'Neill and Stephanie Cairns, p. 8.*

Staff is mindful of the fact that the introduction of a stormwater fee to all classes of properties that receive stormwater services will have a direct impact on the approximately 32,400 residential dwellings, and over 5,800 ICI properties that, through no fault of their own, have not been paying for stormwater services since 2001. These are not all rural properties. There are also several urban communities that are not connected to the City's sewer services and some that maintain their own stormwater system. Both urban and rural areas receive a benefit from stormwater management, but there are real differences in the level of service provided for areas that are connected to in-ground storm sewers versus those that are not.

The concerns of the residents who would be paying a new fee because they do not receive water bills was the focus of much of the feedback in the public consultations, and addressing as many of these concerns as possible has been a major focus of staff when developing the proposed stormwater fee structure.

To begin, staff identified specific differences between the residential and non-residential sectors with respect to impervious surface, as that directly relates to the infrastructure required to provide stormwater services. It was staff's position that correctly apportioning those costs, was a reasonable starting point for examining options for a new stormwater rate structure.

Based on an analysis of the City's GIS data, it was estimated that residential properties account for 67% of the total impervious area while non-residential properties account for 33%. However, based on the current water consumption billing method, residential properties pay 73% of the total amount billed and non-residential properties only pay 27%. Based on this analysis, 6% more of the \$42.4 million cost for stormwater should be recovered from the ICI sector compared to what they currently pay. The proposed rate structure would allocate the total fees to be collected from residential properties at \$28.5 million and \$13.9 million from the ICI sector. This assumption was brought into the analysis and public consultation phase, and it is proposed that this allocation remain in the new structure.

To help staff develop its stormwater fee proposal, the City contracted the services of the engineering firm AECOM to review funding options for stormwater. AECOM has developed stormwater funding models for several municipalities that have subsequently approved the implementation of a separate stormwater fee, including Mississauga, Guelph, Kitchener, Waterloo, Markham, and others. Document 3 – Stormwater Funding

Options Review, provides a summary of AECOM's analysis and recommendations for the City of Ottawa.

In brief, several methods were assessed:

- Tax based on weighted assessment;
- Uniform flat fee;
- Unweighted assessment (Current Value Assessment);
- Land use impervious averages (Hard Surface Averages);
- Impervious measurement of each property (Hard Surface per Property);
- Parcel size; and
- Hybrid tax-based for rural and fee for urban

A full description and assessment of each method are provided in the AECOM report. Three of these options were presented at the public consultations: flat rate; assessment and hard surface averages. The other options were not selected for consultation because they were either too administratively complex, excluded certain properties that are receiving a benefit, or were not equitable.

In addition, at the outset, staff also examined whether it was possible to establish a stormwater fee structure based on the imperviousness of every individual property, taking into account slope and vegetative cover, which participants believed would be the most equitable method for recovering stormwater costs. Upon review, it was determined that such a structure would be complicated to implement and costly to administer and staff was of the opinion that the cost of such a rate structure would outweigh the benefits.

Of the three options that were presented at the consultations, there were only two options that participants felt were acceptable: a flat fee or one based on hard surface. Very few residential participants felt that the fee based on assessment was fair.

With respect to a fee, participants wanted any fee structure to recognize the personal contributions property owners already make to stormwater management (septic fields, municipal drains, private entrance culverts, etc.) and take into account the different

levels of infrastructure and services in different parts of the city. Specifically, it was expressed that, in order to increase fairness, any fee should also consider land use classification, property size, estimated impervious area in relation to permeable surfaces, runoff contribution to the City's stormwater system and the level and type of infrastructure that exist in a neighbourhood. Many participants suggested that these costs be transferred to the property tax bill, but that would still leave some benefitting properties not contributing and would not permit the kind of tiered approach participants were requesting.

Property owners in the urban communities that are not connected to the City's sewer services were additionally concerned that they would be double-charged for drainage services because they already pay significant fees for the installation, maintenance, and renewal of their own drainage systems.

For the ICI sector consultations, participants felt the hard surface fee was more equitable and a fee based on assessment was their second choice. Since there is such a wide disparity among the various ICI properties, those participants did not feel that a flat fee would be fair.

Based on feedback from the consultations, AECOM was asked to review several revisions to the stormwater options:

- Providing a 30% discount on the fee for properties that are not connected to City water and sewer services to reflect the fact that properties with a private septic system generally have more green space surrounding their home to accommodate a septic bed and lower impervious to permeable surface ratio and that the benefit they receive is primarily from road and roadside drainage and not drainage from their property.
- Providing an additional 20% discount (such that the total discount would be 50%) for rural properties that are not connected to City water and sewer services to reflect the fact that, in general, the ratio of impervious to permeable surface is lower in rural areas as compared to urban areas, the stormwater infrastructure and level of service in rural areas is less complex than in urban areas (mostly ditches, culverts and drainage ponds), and that some drainage is already provided by private drainage tiles. Rural is defined as properties that are outside the urban boundaries defined in the City's Official Plan.

Therefore, the number of stormwater funding options to be analyzed for the residential sector increased from three to five:

- Uniform flat fee (Option 1): all residential properties pay the same amount.
- Discounted flat fee (Option 2): townhouses and apartments pay 50% of what a single or semi-detached home would pay because they have a proportionally smaller impervious footprint, rural connected pay the same as urban connected, urban not connected receive a 30% discount and rural not connected receive a 50% discount.
- Discounted fee based on hard surface averages (Option 3): the average square metre of a single and semi-detached home is calculated at 238.4 square metres and townhomes and apartments at 83.6 square metres. Rural connected pay the same as urban connected, urban not connected receive a 30% discount and rural not connected receive a 50% discount.
- \$2 million rural special area levy with urban fee based on hard surface averages (Option 4): rural properties are charged a special area levy and urban properties are charged a fee based on hard surface area averages, with urban not connected receiving a 30% discount.
- 100% general tax levy (Option 5): the stormwater is funded by the property tax and normal tax rules apply (e.g. exempt properties such as churches, hospitals and universities do not pay).

For the ICI sector, the options were modified slightly to replace the hard surface option with the assessment option. Since there is so much variability in the impervious area of the non-residential sector, it is impossible to establish averages. Assessment value is considered to be proxy for property size. It is also data that the City currently receives from and is validated by MPAC. Therefore, for ease of implementation and to ensure consistency of the fee charged to each property, the recommendation is to use individual property assessment values for calculating the ICI stormwater fees.

Document 1 – Stormwater Rate Structure Options Analysis details the estimated rate for each of the revised five options by sector: residential and ICI; by land use category: single/semi-detached and townhouse/apartments; by assessment range (for ICI only); by area: urban and rural; and by service type: connected or not connected to City sewer

services. These rates are estimated based on land use, assessment, location and service type data that is currently used for other purposes and will need to be validated further as part of the water billing system implementation. The new rates, once established, are not expected to vary significantly from what is shown in Document 1.

**The Proposed New Stormwater Fee Structure for Residential Properties:  
Discounted Flat Fee**

After reviewing all the options and the public feedback, and in keeping with emerging municipal best practices, staff is proposing that stormwater services be funded with a stormwater fee for all, that considers both the contribution to runoff and the benefit received. Where municipal drains and private stormwater systems service private landowners, roadside drainage service everyone. Even private systems ultimately discharge to the city stormwater management system and facilities. However, staff also recognizes that, consistent with the feedback received during the public consultations, it is important to ensure that the role that private systems play in City stormwater management is reflected in a significant way in the proposed fee structure.

The recommended stormwater rate for residential properties, therefore, is the Discounted Flat Fee (Option 2). The simple Flat Fee option (Option 1) would result in all properties paying exactly the same amount (approximately \$74.50 per year). By applying the discount to the properties that are not connected to City services and charging half of the fee of a single and semi detached to a townhouse or apartment the estimated fee for each property type would be as follows:

Property Type		Recommended Option Discounted Flat Fee (per year)
<b>Single &amp; Semi</b>	Urban/Rural Connected	106.57
	Urban Not Connected	74.60
	Rural Not Connected	53.29
<b>Townhouse / apartments</b>	Urban/Rural Connected	53.29
	Urban Not connected	37.30
	Rural Not connected	26.64
<b>Total Urban Revenue</b>		<b>\$26,575,000</b>
<b>Total Rural Revenue</b>		<b>\$1,965,000</b>
<b>Total Residential Revenue</b>		<b>\$28,540,000</b>

**The Proposed New Stormwater Fee Structure for Industrial, Commercial and Institutional (ICI) Properties: Discounted Flat Tiered Fee Based on Assessment**

The recommended stormwater rate for ICI properties is a Discounted Flat Tiered Fee Based on Assessment (Option 2). This option establishes a tiered fee based on an assessment value range and charging all ICI properties in that range a flat fee. This will help to reduce any disparities in valuation of properties due to location or age of the property and aligns it more to the relative size/scale of a property. A tiered structure is also easier to administer than calculating the fee based on the exact assessment value of each property. The simple Flat Fee option (Option 1) would result in all ICI properties paying exactly the same amount (approximately \$711 per year).

Within the ICI sector, there are clear differences in the permeability of some properties, which also affects stormwater runoff. Impervious surfaces, which are defined as any hard surface such as rooftops, driveways (including gravel driveways, pavers, etc.) and paved surfaces such as parking lots, contribute to stormwater runoff. Properties classified as farmland and forested land would be excluded from a stormwater fee,

because they do not contain any impervious or hard surface, and therefore do not contribute to runoff.

By applying a 30% discount to the rural properties that are not connected to City services the estimated fee for each tier in the ICI sector would be as follows:

<b>Assessment Value Ranges</b>	<b>Property Type</b>	<b>Recommended Option 2 Discounted Flat Tiered Fee Based on Assessment (per year)</b>
<b>\$0 - \$300K</b>	Urban/Rural Connected	\$60
	Rural Not Connected	\$42
<b>\$300K - \$2M</b>	Urban/Rural Connected	\$200
	Rural Not Connected	\$140
<b>\$2M - \$8M</b>	Urban/Rural Connected	\$1,500
	Rural Not Connected	\$1,050
<b>\$8M - \$20M</b>	Urban/Rural Connected	\$5,000
	Rural Not Connected	\$3,500
<b>\$20M - \$50M</b>	Urban/Rural Connected	\$10,000
	Rural Not Connected	\$7,000
<b>\$50M - \$100M</b>	Urban	\$25,000
<b>\$100M - \$200M</b>	Urban	\$50,000
<b>Over \$200M</b>	Urban	\$100,000
<b>Total Urban ICI Revenue</b>		<b>\$13,320,000</b>
<b>Total Rural ICI Revenue</b>		<b>\$560,000</b>
<b>Total ICI Revenue</b>		<b>\$13,880,000</b>



This is one of the differential fees that clearly illustrates the flexibility of using a fee for stormwater services rather than funding them through property taxes. If the stormwater costs were funded from the property tax, farmland and forested land properties would have to pay, and exempt properties like churches, hospitals and universities would not pay, even though they have impervious surfaces. However, if the costs are recovered through the proposed rate structure, farmland and forested land properties would not pay for stormwater services and property tax-exempt properties would.

### **Implementation and Next Steps:**

#### **Phasing in the Stormwater Fees for Homes and Businesses using Private Wells and Septic**

Since this will be a new fee for those properties that are not connected to City services, the recommendation is to phase in these fees for not connected properties over four years (i.e. 25% of the listed fee in year 1, 50% in year 2, 75% in year 3 and 100% in year 4). This would apply to both residential and ICI properties.

This will allow those residents and businesses who will be most affected by the new rate structure to plan and budget for this change.

As these properties do not receive a water bill, the stormwater fee will be included on the final property tax bill each year.

#### **Addressing Ditch Alteration Policy Issues**

Although the issues raised during the public consultations about ditching standards were not directly related to the Water, Wastewater and Stormwater Rate Review, staff was mindful of the feedback they received related to these City services and believe they should be addressed. Therefore, staff is proposing to review the City's Ditch Alteration Policy and related issues in 2017, and recommend adjustments where possible to address a number of the concerns raised. Staff believes they can bring forward a report to Committee and Council before the end of Q4 2017.

#### **The New Water Billing System**

The City is implementing a new water billing system that is expected to go live at the beginning of 2018. Full implementation of the new rate structure will only be possible with the new system, as the current water billing system does not have the flexibility to

accommodate the fixed plus volumetric block rate for water and wastewater or to include the revised stormwater fee.

All those connected to City sewer services will continue to pay their share of stormwater services through the sewer surcharge on the water bill. As mentioned earlier, the stormwater fee for those not connected to City services will be phased in over four years, beginning in 2017. The revenue associated with these accounts will be deducted from the sewer surcharge paid by those receiving a water bill. Once the new water billing system is implemented, water bills will clearly show the water and wastewater rates and a separate stormwater fee. The new water bill is expected to be in place by January, 2018.

### **Finalizing the Rate Structure**

If the new rate structure is approved by Council, there will be additional work required to finalize the rates, as follows:

- Properties that are not connected will be identified, including whether they are outside the urban boundary.
- Land use codes will be linked to property codes and to water billing accounts.
- The appropriate Stormwater Flat Tiered fee will be aligned with each ICI property, as follows:
  - The ICI Stormwater Tier will be determined based on the phase in assessment value returned on the roll.
  - Once the Stormwater Tier has been set for the year, it will apply for the full year.
  - There will be no changes in the ICI Stormwater Tier classifications due to appeals or in year assessment changes once the ICI tier has been set at the beginning of the year in order to maintain determined annual budget costs.
  - There will be no retroactive credits or debits applicable due to settlement of appeals, request for reassessments or any other changes in assessment value that may result in a change in the ICI Stormwater Tier

in the current or previous years in order to maintain determined annual budget costs.

- Determine rates for water, wastewater and stormwater based on current budgeted costs and estimated consumption and number and size of water meters.

The AECOM report provides additional details on the activities required to implement a new water, wastewater and stormwater rate structure. The effort to implement the new rate structure includes not only the steps above but also the time and effort to amend by-laws, document the new procedures, develop a communication strategy, communicate the new rate structure and respond to increased queries, particularly in the first two months. The costs associated with implementing the new water bill and configure the system are already included in the cost for implementing the new water billing system, but may require some additional one-time and ongoing costs that will need to be incorporated into the 2017 budget.

### **Ensuring Regular Review of the Water, Wastewater and Stormwater Fees and Rates**

In a municipality as large, complex and geographically diverse as Ottawa, there is no perfect solution to funding these services within the current legislative framework and with current information and technologies.

Council may wish to revisit a number of issues in the future to address a way to account for hard surfaces, or encourage water conservation while retaining financial stability or to address any unanticipated consequences of this new structure.

The City's Fiscal Framework requires that user fees be reviewed periodically. To this end, staff is proposing that the Rate Structure be reviewed as part of each Long-Range Financial Plan (LRFP) (noting that the next Long-Range Financial Plan will be presented prior to the full implementation of this new structure, so the intent would be to include this in the LRFP following the full implementation).

## **RURAL IMPLICATIONS**

Rural properties that do not receive a water bill are not currently contributing to the costs related to stormwater services. If this report is approved by Council, these properties will be subject to a new stormwater fee on their property tax bill, phased in over four years starting in 2017. However, properties classified as farmland and forested land would continue to be exempted from paying a stormwater fee. The implications of this report for rural properties currently receiving a water bill are the same as those in the urban and suburban area.

## **CONSULTATION**

The consultations were conducted between March 21 and April 10, 2016, and included eight public meetings with an overall attendance of over 700 residents, a series of specific stakeholder consultations, including Business Improvement Areas, the Industrial/Commercial/Institutional (ICI) sector, local environmental groups and the City's Environmental Stewardship Advisory Committee; and an on-line survey in English and French that was open from March 21 to April 10, 2016 that received a total of 137 responses. As well, over 175 residents and community associations provided input to the City via email.

The results of this consultation are reflected in One World Inc.'s report "[What We Heard](#)".

## **LEGAL IMPLICATIONS**

City staff have consulted with the office of the City Solicitor and the City's external legal counsel, Borden Ladner Gervais LLP, who have advised that there are no legal impediments to approving the recommendations in this Report.

The City has broad statutory legal authority in the *Municipal Act, 2001* to impose fees and charges to recover costs related to services provided by the municipality which, in this instance, are related to stormwater management services, operations and infrastructure throughout the City of Ottawa.

Specifically, the *Municipal Act, 2001*, provides broad statutory legal authority pursuant to Sections 8, 9 and 10, for a municipality to pass municipal by-laws. Furthermore, Sections 390 and 391 of that statute provides the statutory framework for Council to impose fees and charges to recover the City's costs related to services or activities

provided, which may include the proposed sewage and stormwater related service costs. In determining how to best recover the City's costs equitably throughout the municipality, the Act also permits that the basis of the fee may be computed by reference to the location of the property, the physical characteristics of the property or other land use classification.

During the consultation process, some concerns were raised that this initiative was contrary to the Common Law or the *Drainage Act*. In response it is to be observed that statutes enacted by either the Federal Parliament or the Provincial Legislature, such as the Ontario *Municipal Act, 2001*, have precedence over the Common Law. In addition, the *Drainage Act* is not applicable in this case as the City relies upon the financial provisions in the *Municipal Act, 2001* and not the *Drainage Act* as the former statute provides broad legal authority for Council to impose fees and charges to recover costs related to services provided by the municipality related to stormwater management throughout the municipality. In contrast, the *Drainage Act* speaks to the obligation of landowners, both government and private alike, in certain instances and is not applicable in this instance. Furthermore, Subsection 391(5) of the *Municipal Act, 2001* provides that in the event of a conflict between the fee or charge by-law and any other Act, the fee or charge by-law prevails.

For reference purposes sections 390 and 391 within Part XII of *Municipal Act, 2001* are included below, which provides the framework for Council to impose Fees and Charges to recover the City's costs, which may include the proposed sewage and stormwater related service costs.

### ***Municipal Act, 2001***

## **PART XII FEES AND CHARGES**

### **Definitions**

**390.** In this Part,

“by-law” includes a resolution for the purpose of a local board; (“règlement municipal”)

“fee or charge” means, in relation to a municipality, a fee or charge imposed by the municipality under [sections 9, 10 and 11](#) and, in relation to a local board, a fee or charge imposed by the local board under [subsection 391 \(1.1\)](#); (“droits ou redevances”)

“local board” includes any prescribed body performing a public function and a school board but, for the purpose of passing by-laws imposing fees or charges under this Part, does not include a school board or hospital board; (“conseil local”)

“person” includes a municipality and a local board and the Crown. (“personne”)

### **By-laws re: fees and charges**

391. (1) Without limiting [sections 9, 10](#) and [11](#), those sections authorize a municipality to impose fees or charges on persons,

- (a) for services or activities provided or done by or on behalf of it;
- (b) for costs payable by it for services or activities provided or done by or on behalf of any other municipality or any local board; and
- (c) for the use of its property including property under its control.

### **Local board**

(1.1) A local board may impose fees or charges on persons,

- (a) for services or activities provided or done by or on behalf of it;
- (b) for costs payable by it for services or activities provided or done by or on behalf of any municipality or other local board; and
- (c) for the use of its property including property under its control.

### **Deferred benefit**

(2) A fee or charge imposed for capital costs related to services or activities may be imposed on persons not receiving an immediate benefit from the services or activities but who will receive a benefit at some later point in time.

### **Costs related to administration, etc.**

(3) The costs included in a fee or charge may include costs incurred by the municipality or local board related to administration, enforcement and the establishment, acquisition and replacement of capital assets.

**Fees for mandatory services, etc.**

(4) A fee or charge may be imposed whether or not it is mandatory for the municipality or local board imposing the fee or charge to provide or do the service or activity, pay the costs or allow the use of its property.

**Conflict**

(5) In the event of a conflict between a fee or charge by-law and this Act, other than this Part, or any other Act or regulation made under any other Act, the by-law prevails.

**RISK MANAGEMENT IMPLICATIONS**

There are risk implications. These risks have been identified and explained in the report and are being managed by the appropriate staff.

**ASSET MANAGEMENT IMPLICATIONS**

The recommendations documented in this report are consistent with the City's Comprehensive Asset Management (CAM) Program ([City of Ottawa Comprehensive Asset Management Program](#)) objectives, linked to a service-focused approach by considering all assets in service and accounting for their interrelationships. Balancing service levels, risks and costs is essential to effectively managing existing and new infrastructure.

The provision of stable and predictable funding is an important factor in the City's ability to effectively plan water, wastewater and stormwater asset related investments. In alignment to the refresh of the long range financial plan, scheduled for 2017, there will be an update to the Comprehensive Asset Management (CAM) Program. The CAM update will include a focus on the condition of the assets and the quantum of investments needed to sustain these important City assets in a good state of repair.

## **FINANCIAL IMPLICATIONS**

As indicated in the report the proposed new rate structure will not have an impact on the annual budget. As such, the change is considered revenue neutral. However, by introducing a fixed charge component to the water and waste water rate structure, the extent of a revenue shortfall is reduced should actual water consumption fall below the level budgeted. The introduction of a Stormwater Fee, shifts the revenue for these services from the sewer surcharge, which is currently based on water consumption to a fixed charge. This will add additional stability to stormwater management revenues.

## **ACCESSIBILITY IMPACTS**

There are no accessibility impacts with this report.

## **TERM OF COUNCIL PRIORITIES**

FS1 – Align strategic priorities to council's tax and user fee targets

FS2 – Maintain and enhance the City's financial position

GP3 – Make sustainable choices

ES1 – Improve stormwater management.

## **SUPPORTING DOCUMENTATION**

*(Previously distributed to all members of Council and held on file with the City Clerk.)*

Document 1 – Stormwater Rate Structure Options Analysis

Document 2 – Impact of New Rate Structure by Property Type

Document 3 – AECOM Report

## **DISPOSITION**

Upon approval, staff will begin the work indicated in the "Finalizing the Rate Structure" section of this report, and incorporate a review of the Ditch Alteration Policy in their 2017 workplan, as well as responding to any other directions from Council arising from the consideration of this matter.

The Office of the City Clerk and Solicitor will prepare the required by-laws and place any amending by-laws on an agenda of Council.