



TORONTO WATER

2017 OPERATING BUDGET OVERVIEW

Toronto Water delivers water treatment and distribution, and wastewater collection and treatment services on demand to 3.6 million residents and businesses in Toronto, and portions of York and Peel.

2017 Operating Budget Highlights

The total cost to deliver these services to Toronto residents is \$443.206 million as shown below:

(In \$000s)	2016 Budget	2017 Budget	Change	
			\$	%
Gross Expenditures	441,417.8	443,205.6	1,787.8	0.4%
Revenue Excluding Sale of Water	55,268.3	63,364.7	8,096.4	14.6%
Net Expenditure	386,149.5	379,840.9	(6,308.5)	-1.6%
Sale of Water/Wastewater Surcharge	1,080,266.5	1,146,251.3	65,984.8	6.1%
Sale of Water Revenue - Region of York	23,178.0	22,312.2	(865.8)	-3.7%
Total Sale of Water Revenue	1,103,444.5	1,168,563.5	65,119.0	5.9%
Capital Contribution	717,295.0	788,722.6	71,427.5	10.0%

Through operational efficiencies, Toronto Water was able to not only offset initial gross expenditure pressures of \$15.838 million, but was also able to achieve efficiencies and other base budget reductions, reflecting a 1.6% net expenditure decrease prior to additional sale of water revenues arising from the 5% water rate increase effective January 1, 2017.

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Fast Facts

- Treatment, transmission, storage, and distribution of over 1 billion litres of potable water daily is delivered to all industrial, commercial, institutional, and household water users in the City of Toronto, amounting to over 511,000 connections.
- Over 1.5 billion litres of wastewater is collected and treated per day, from residents and businesses in Toronto and a portion of Peel Region.
- City-wide stormwater management in order to protect private property and the environment.

Trends

- Base water consumption (October to April) has declined by 1.7% annually on average over the last 10 years. The 2016 projected consumption of 325 million cubic meters is significantly lower than the 374 million cubic meters consumed in 2005.
- Lower water consumption despite increasing population, combined with aging infrastructure and need for operational resilience during extreme weather events, has placed particular demand on Toronto Water's infrastructure services.
- In response to that demand, water rates are recommended to increase by 5%, with all the increased revenue generated going to fund capital infrastructure that supports service delivery.

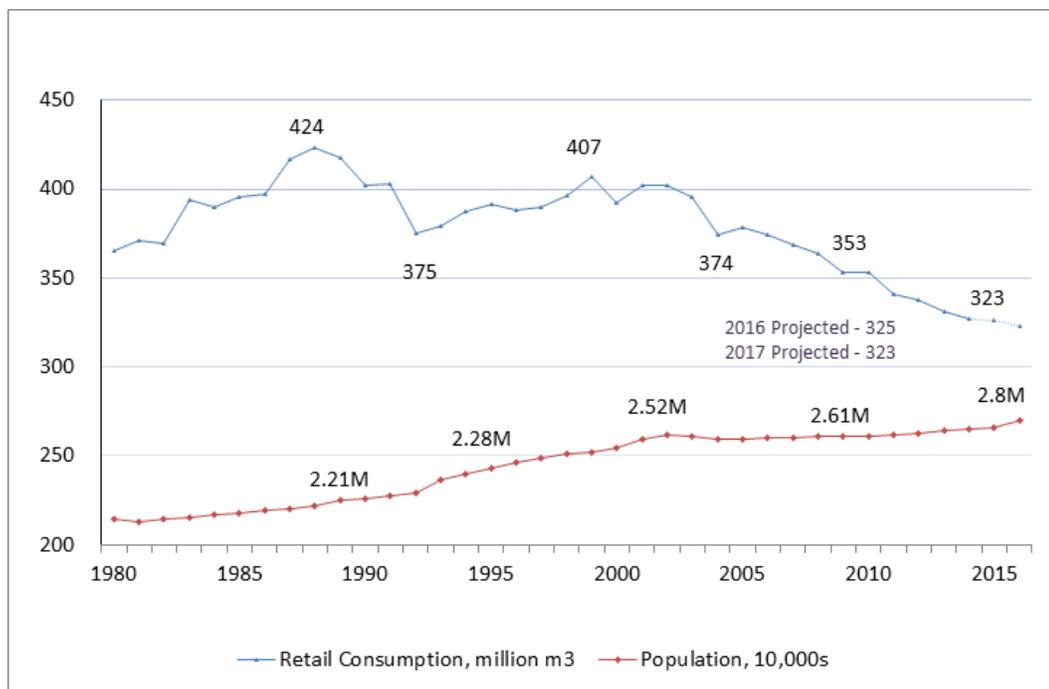
Key Service Deliverables for 2017

Toronto Water manages one of the largest water and wastewater systems in North America, providing services 24 hours a day, seven days a week.

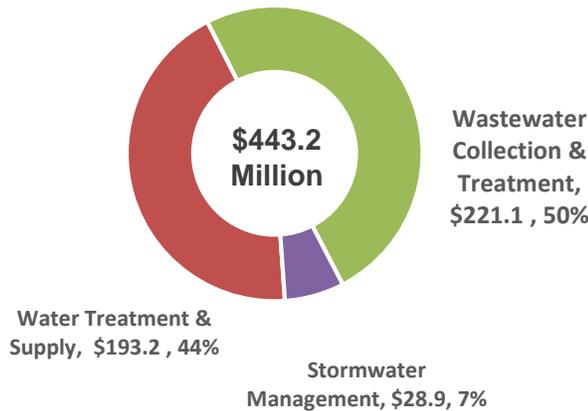
The 2017 Operating Budget will enable Toronto Water to:

- Ensure delivery of water and wastewater services for 3.6 million residents and business in Toronto.
- Provide treatment and supply of 433 billion litres of water (includes York Region).
- Continue collection and treatment of 400 billion litres of wastewater.
- Continue maintenance and repair of 6,100 km of watermains, 4,100 km of sanitary sewers, 5,000 km of storm sewers, and 1,400 km of combined sewers.
- Replace 5,000 sub-standard water services.
- Repair 1,600 broken watermains.
- Provide Environmental Monitoring and Protection including on-going public consultations and awareness programs.

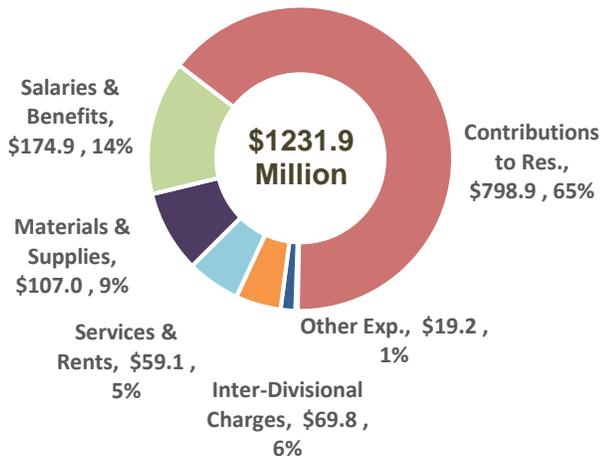
Population and Water Consumption



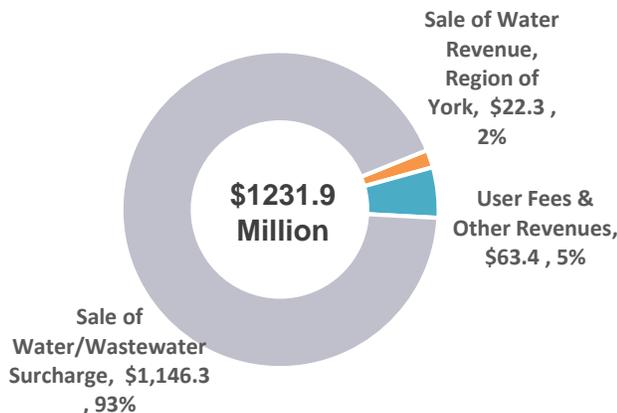
**Where the money goes:
2017 Budget by Service**



2017 Budget by Expenditure Category



**Where the money comes from:
2017 Budget Funding Source**



Our Key Issues & Priority Actions

- **Declining water consumption** resulting in lower revenues from water rates needed to support capital requirements.
 - ✓ The 2017 Operating Budget includes a water rate increase of 5% effective January 1, 2017.
 - ✓ To aid in developing a financing strategy to support Toronto Water's stormwater management projects, a report outlining implementation plan for a dedicated storm water charge is anticipated spring of 2017.
- **Maintaining stable operating costs** arising from legislative requirements and the need to comply with Provincial and Federal regulations, as well as inflationary factors and operating impacts of completed capital projects.
 - ✓ A combination of efficiencies found through ongoing optimization at treatment plants and pumping stations to minimize energy and other costs, while meeting required legislative standards, has enabled Toronto Water to offset all of the 2017 operating budget pressures.

2017 Operating Budget Highlights

- The 2017 Operating Budget for Toronto Water of \$443.206 million in gross expenditures provides funding to:
 - Continue to maintain and repair 6,000 km of watermains, 4,100 km of sanitary sewers, 5,000 km of storm sewers, and 1,400 km of combined sewers;
 - Repair 1,600 broken watermains;
 - Enhance its operational resilience by implementing a new Customer Care Initiative strategy.
- In addition to offsetting all of its 2017 operating budget pressures, Toronto Water has achieved further savings of \$6.308 million resulting in a 1.6% net operating budget decrease:
 - Water and wastewater electricity efficiencies (\$5.832 million).
 - Reduced water treatment material consumption and other base expenditure savings (\$1.188 million).
 - Higher non-sale of water revenues due to increase in service demand from new developments and industrial wastewater treatment agreements (\$7.156 million).

Actions for Consideration

Approval of the 2017 Recommended Budget as presented in these notes requires that:

1. City Council approve the 2017 Operating Budget for Toronto Water of \$443.206 million gross, and \$778.723 million net in capital-from-current contribution for the following services:

<u>Service:</u>	Gross <u>(\$000s)</u>	Net <u>(\$000s)</u>
Water Treatment & Supply:	193,218.5	349,967.4
Wastewater Collection & Treatment :	221,114.9	463,426.7
Stormwater Management :	28,872.2	(24,671.5)
Total Program Budget	<u>443,205.6</u>	<u>788,722.6</u>

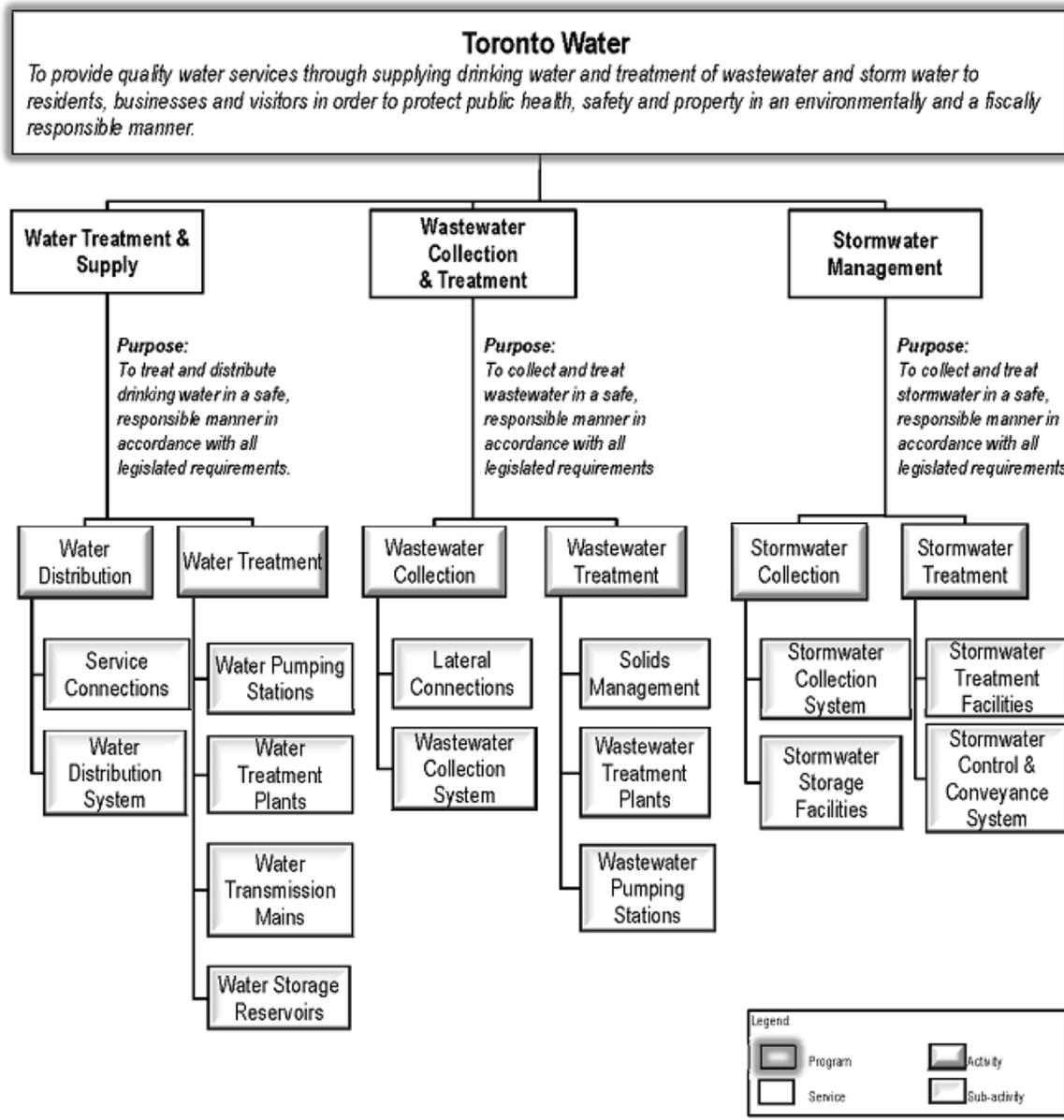
2. City Council approve the 2017 service levels for Toronto Water as outlined on pages 18, 21 and 24 of this report, and associated staff complement of 1,752.65 positions.
3. City Council direct the information contained in Confidential Attachment, remain confidential until the outcome of City Council's decision has been communicated to Unions and affected staff.
4. This report be considered concurrently with the 2017 Water and Wastewater Consumption Rates and Service Fees Report from the Deputy City Manager and Chief Financial Officer.



Part 1:

2017-2019 Service Overview and Plan

Program Map



Service Customer

- Water Treatment & Supply**
- Water account holders
 - Water consumers

- Wastewater Collection & Treatment**
- Wastewater account holders
 - Wastewater producers
 - Public and private landowners

- Stormwater Management**
- Public and private landowners

Service Challenges and Opportunities

- Maintaining stable operating - Continue to find efficiencies while ensuring legislative compliance.
- Managing the continuous increase in costs from internal and external sources - Increase in personnel costs, service providers and materials and supplies due to inflation (electricity, chemicals, parts and machinery).
- Operating impact of completed capital projects - Process improvements require additional resources.
- Asset management & critical response processes - Ensuring operational resilience and minimizing risk to assets during extreme weather occurrences.
- Ongoing service priorities - Ensuring efficient and effective response time to customer service demands.
- Workforce planning & development - Developing hiring strategies for critical, vulnerable and hard to fill positions including on the job training programs

Service Objectives and Priority Actions

- Declining water consumption resulting in lower revenues from water rates needed to support capital requirements.
- The 2017 Operating Budget includes a water rate increase of 5% effective January 1, 2017.
- In the Spring of 2017, Toronto Water will be reporting to Executive Committee on a stormwater charge implementation plan that will aid in developing a financing strategy to support Toronto Water's stormwater management projects.
- Maintaining Stable Operating Costs from legislative requirements and compliance with Provincial and Federal regulations, inflationary factors and operating impacts of completed capital projects.
- With the goal of centralizing customer related functions, a combination of efficiencies were found through the realignment of several Toronto Water units that will reduce unnecessary overlap in responsibilities, activities and positions between units - eight FTE positions are being reduced as part of this organizational realignment.

Table 1
2017 Operating Budget and Plan by Service

(In \$000s)	2016		2017 Operating Budget			2017 Rec. vs. 2016 Budget Changes		Incremental Change			
	Budget	Projected Actual	Base	New/ Enhanced	Total Budget			2018 Plan	2019 Plan		
By Service	\$	\$	\$	\$	\$	\$	%	\$	%	\$	%
Water Treatment & Supply											
Gross Expenditures	194,928.2	189,591.5	193,218.5		193,218.5	(1,709.8)	(0.9%)	5,981.1	3.1%	9,537.1	4.8%
Revenue	512,216.7	515,757.0	543,185.9		543,185.9	30,969.2	6.0%	21,881.0	4.0%	12,850.3	2.3%
Capital Contribution	317,288.4	326,165.5	349,967.4		349,967.4	32,679.0	10.3%	15,899.9	4.5%	3,313.2	0.9%
Wastewater Collection & Treatment											
Gross Expenditures	222,820.8	215,747.0	221,114.9		221,114.9	(1,705.9)	(0.8%)	7,279.3	3.3%	7,810.2	3.4%
Revenue	642,813.0	647,256.0	684,541.6		684,541.6	41,728.7	6.5%	29,095.6	4.3%	16,992.2	2.4%
Capital Contribution	419,992.2	431,509.0	463,426.7		463,426.7	43,434.5	10.3%	21,816.2	4.7%	9,182.0	1.9%
Stormwater Management											
Gross Expenditures	23,668.8	22,053.4	28,872.2		28,872.2	5,203.5	22.0%	949.3	3.3%	853.8	2.9%
Revenue	3,683.2	3,708.7	4,200.7		4,200.7	517.5	14.0%	10.0	0.2%	100.1	2.4%
Capital Contribution	(19,985.6)	(18,344.7)	24,671.5		(24,671.5)	4,686.0	(23.4%)	(939.3)	3.8%	(753.7)	2.9%
Total											
Gross Expenditures	441,417.8	427,391.8	443,205.6		443,205.6	1,787.8	0.4%	14,209.7	3.2%	18,201.1	4.0%
Revenue	1,158,712.8	1,166,721.6	1,231,928.2		1,231,928.2	73,215.3	6.3%	50,986.6	4.1%	29,942.6	2.3%
Total Capital Contribution	717,295.0	739,329.8	(788,722.6)		788,722.6	71,427.5	10.0%	36,776.9	4.7%	11,741.5	1.4%
Approved Positions	1,758.7	1,624.7	1,752.7		1,752.7	(6.0)	(0.3%)	12.0	0.7%	10.0	0.6%

The 2017 Operating Budget for Toronto Water is \$443.206 million gross and \$1.232 billion in revenue, resulting in a \$788.723 million capital-from-current contribution. It reflects an increase of \$1.788 million or 0.4% over the 2016 Approved Budget gross expenditures of \$441.418 million and an increase of \$71.427 million or 10% over the 2016 Approved Capital Contribution Budget of \$717.295 million due to the following:

- Base pressures, which are experienced by all three services consistently, are mostly attributable to inflationary increases for materials, supplies and contracted services (\$7.113 million); salaries and benefits, including progression pay and step increases (\$3.687 million), and additional funding requirements to ensure operational resilience during extreme weather occurrences (\$2.5 million).
- These pressures were partially offset by savings from annualized impact of previous year approvals including water loss and leak detection program (\$0.186 million), operating impact of capital (\$0.114 million), changes in interdepartmental charges (\$2.027 million), which are applied uniformly across all services. Additional savings due to reassessment of payment in lieu of taxes and lower water and wastewater production costs based on actual experience (\$1.269 million), were achieved in the *Water Treatment and Supply and Wastewater Collection and Treatment Services*. In addition, Toronto Water anticipates an increase in revenues and recoveries (other than sale of water) totalling \$6.434 million across all services, with another \$2.050 from industrial wastewater treatment agreements in the *Wastewater Collection and Treatment Service*.
- Service change options totaling \$8.847 million, consisting mostly of base expenditure changes in materials, supplies and other non-salary costs (\$1.189 million), and efficiency savings from optimization of water and waste water productions costs and other initiatives, were used to reduce initial base pressures for 2017.
- Approval of the 2017 Operating Budget will result in Toronto Water reducing its total staff complement by 6.0 positions, from 1,758.65 to 1,752.65.
- The 2017 and 2018 Plans for all services reflect the inflationary cost increases for salaries and benefits (including step and progression pay), operating impact of previously approved capital projects, and anticipated inflationary cost increases for materials and supplies, interdepartmental charges and contributions and transfers. Projected revenues from the sale of water for 2018 (5% planned rate increase) and 2019 (3% planned rate increase) are also included in the Plans.

**Table 2
Key Cost Drivers**

(In \$000s)	2017 Base Operating Budget						Total	
	Water Treatment & Supply		Wastewater Collection & Treatment		Stormwater Management			
	\$	Position	\$	Position	\$	Position	\$	Position
Gross Expenditure Changes								
Prior Year Impacts								
Annualizations								
Contribution to Equipment & Vehicle Reserve	325.0		292.5		32.5		650.0	
Water Loss & Leak Detection Program	(106.1)		(11.6)		(2.3)		(120.0)	
Other Annualizations	(68.1)	(1.2)	9.6	1.3	(7.1)	(0.1)	(65.6)	0.0
Operating Impacts of Capital								
Operating Impacts of Capital Including Humber River WWWT Cogeneration Plant	208.0	0.6	(366.5)	2.0	44.0	0.5	(114.5)	3.0
Economic Factors								
Corporate Economic Factors	3,366.5		3,668.9		77.9		7,113.4	
Salaries and Benefits								
COLA, Progression Pay, Step Increases and Realignments	1,626.7		1,732.0		328.5		3,687.1	
Other Base Changes								
TRCA - 2.5% Increase					117.8		117.8	
Humber Wastewater Treatment Plant - Admin Support Volume Increase			68.6	1.0			68.6	1.0
District Operations - Additional Funding Related to Extreme Events	1,510.6		820.2		169.2		2,500.0	
Wastewater TPs - Higher Water Surcharges due to New Meter Reader Billing Accuracy			533.0				533.0	
Other Base Expenditure Increases	133.6	(1.2)	(56.4)	(0.7)	(24.8)	(0.1)	52.3	(2.0)
Changes in Interdepartmental Charges	(1,026.3)		(874.6)		(125.8)		(2,026.7)	
Lower Payments in Lieu of Taxes - MPAC Reassessment Including Island TP	(482.0)		(574.3)				(1,056.4)	
Decrease in Production of Water & Wastewater Costs Based on Review of Actuals	(216.4)		4.0				(212.4)	
Other Base Expenditure Reductions	(177.1)		(159.4)		(17.2)		(353.7)	
Total Gross Expenditure Changes	5,094.4	(1.8)	5,085.9	3.6	592.6	0.3	10,772.9	2.0
Revenue Changes								
Decrease in Revenues from Region of York (Rate Calculation Methodology Change) and Private Water	(1,115.8)						(1,115.8)	
Recoveries from Capital for Capital Work Delivery	328.4		935.9		63.8		1,328.2	
Increase in Revenue from Industrial Wastewater Agreements			2,050.0				2,050.0	
Increase in New Service Connections	2,992.8		1,681.5		431.7		5,106.0	
Total Revenue Changes	2,205.4		4,667.4		495.5		7,368.4	
Net Expenditure Changes	2,889.0	(1.8)	418.5	3.6	97.1	0.3	3,404.5	2.0

Key cost drivers and offsetting cost reductions for Toronto Water are shown in the table above. The following describes major base budget changes for 2017:

- The major cost drivers impacting all Toronto Water services include *inflationary labour* costs (\$3.687 million, including progression pay costs of \$1.198 million and step increases of \$0.575 million) and *non-labour costs*, mostly energy and utilities (\$5.359 million), materials, supplies and equipment (\$0.693 million) and contracted services (\$1.061 million). Increased cost of \$2.5 million are required to account for *higher volume of materials and restoration work* for watermain and sewer breaks during the extreme weather conditions anticipated to continue in 2017.
- The above base budget cost increases were partially offset through:

- A combination of *base cost reduction options* across all services, including revenues from the Water Loss and Leak Detection Program, lower interdivisional charges reflecting lower utility cut repairs costs, based on estimated volume of work to be delivered in 2017, and savings resulting from payments in lieu of taxes, based on the current value assessment for treatment plants.
- As a result of new equipment coming on line in 2017 at the Humber Wastewater Treatment Plant (cogeneration system), an estimated \$1.0 million in electricity costs savings will fully offset *operating impacts* of other completed projects including 3 new positions for maintenance of new capital infrastructure, resulting in a net saving of \$0.114 million.
- *Additional revenues* of \$8.484 million from new service connections, recoveries for capital work delivery related to watermain and sewer rehabilitation program and procurement of materials and services, as well as increased number of industrial wastewater treatment agreements are anticipated. They will offset pressures arising from lower revenues from Region of York and private water fees, thus reducing the base budget pressures in the *Water Treatment and Supply services*.

In order to offset the above net pressures of \$3.404 million, the 2017 service changes for Toronto Water include base expenditure changes of \$1.188 million, base revenue changes of \$0.084 million and service efficiency savings of \$7.574 million, for a total savings of \$8.847 million, as detailed below:

Table 3
2017 Service Change Summary

Description (\$000s)	Service Changes						Total Service Changes			Incremental Change			
	Water Treatment & Supply		Wastewater Collection & Treatment		Stormwater Management		\$	\$	#	2018 Plan		2019 Plan	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Pos.	Net	Pos.	Net	Pos.
Base Changes:													
Base Expenditure Changes													
Reduce Discretionary Expenses	(450.7)	(450.7)	(407.9)	(407.9)	(60.0)	(60.0)	(918.5)	(918.5)					
Reduce Hardware & Software Acquisitions	(10.3)	(10.3)	(9.3)	(9.3)	(0.4)	(0.4)	(20.0)	(20.0)					
Reduce Water Treatment Materials & Supplies (10%)	(200.0)	(200.0)					(200.0)	(200.0)					
Other Line-by-Line Savings	(50.0)	(50.0)					(50.0)	(50.0)					
Base Expenditure Change	(711.0)	(711.0)	(417.2)	(417.2)	(60.4)	(60.4)	(1,188.5)	(1,188.5)					
Base Revenue Changes													
Inflationary Factor - User Fees		(71.2)		(13.3)				(84.5)					
Base Revenue Change		(71.2)		(13.3)				(84.5)					
Sub-Total	(711.0)	(782.2)	(417.2)	(430.5)	(60.4)	(60.4)	(1,188.5)	(1,273.1)					
Service Efficiencies													
Reduce use of Backup Tapes and Rely on Off-site Backup	(46.4)	(46.4)	(41.7)	(41.7)	(1.9)	(1.9)	(90.0)	(90.0)					
Eliminate Maintenance Contract for Hansen	(139.3)	(139.3)	(125.1)	(125.1)	(5.6)	(5.6)	(270.0)	(270.0)					
Reduce Emergency Repair and Ad-hoc Customization of Applications	(39.2)	(39.2)	(35.2)	(35.2)	(1.6)	(1.6)	(76.0)	(76.0)					
Lower Maintenance Costs as a result of Fleet Reduction/ Rationalization	(169.3)	(169.3)	(105.5)	(105.5)	(21.8)	(21.8)	(296.7)	(296.7)		(157.7)		(157.7)	
Toronto Water Reorganization - Customer Care Initiative	(260.0)	(260.0)	(368.6)	(368.6)	(118.2)	(118.2)	(746.7)	(746.7)	(8.0)				
Water & Wastewater Production Efficiencies	(2,997.3)	(2,997.3)	(2,845.1)	(2,845.1)	10.6	10.6	(5,831.8)	(5,831.8)					
Reduce Contingencies - Transfer & Hulage of Biosolids			(263.0)	(263.0)			(263.0)	(263.0)					
Sub-Total	(3,651.6)	(3,651.6)	(3,784.2)	(3,784.2)	(138.4)	(138.4)	(7,574.2)	(7,574.2)	(8.0)	(157.7)		(157.7)	
Total Changes	(4,362.6)	(4,433.9)	(4,201.4)	(4,214.7)	(198.7)	(198.7)	(8,762.8)	(8,847.3)	(8.0)	(157.7)		(157.7)	

Base Expenditure Changes (Savings of \$1.188 million gross & net)

- A review of actual expenditures for materials, supplies, equipment and other discretionary expenses such as travel, conferences and ad-hoc consulting work, resulted in a \$1.188 million cost reduction, mostly in *Water Treatment and Supply services*.

Base Revenue Changes (Savings of \$0.084 million net)

- In accordance with Council's approved User Fee Policy, inflationary factors that reflect service specific cost increases are applied in order to recover the full costs. As a result, the 2017 Operating Budget includes additional revenues of \$0.084 million from user fee inflationary rate increases.

- The overall inflationary increase was estimated at 2.43% for water and waste water service fees including labour cost increase, energy, utilities, materials and contracted services. The 2.43% increase has been applied to all fees except for those that are part of individual contracts whereby the increase must reflect the specified contract escalation cost, and 5 fees charged by Revenue Services for which an overall factor of 1.5% applicable to Revenue Services Division was used, as described below:
 - 17 water service fees (Appendix C – Schedule 2, Water Service, Reference Numbers: 1,2,5,11,12,13,15,15.1,17,21,25,32, 40, 42, 43, 44 and 45) are increased based on 2.43% inflationary factor and actual contract increases.
 - Water service connection and disconnection fees, (Appendix C – Schedule 2, Water Service, Reference Numbers: 1, 2, and 5) are subject to new tender to be effective May 1st, 2017 and are expected to increase by the rate of inflation for Toronto Water of 2.43%.
 - 10 wastewater service fees (Appendix C – Schedule 3, Wastewater Service, Reference Numbers: 4, 5, 6, 15, 17, 18, 19, 20 and 24) are increased based on 2.43 % inflationary factor and actual contract increases.
 - Residential sewer service connection and disconnection fees, (Schedule 3, Wastewater Service, Reference Numbers: 4, 5, and 6) are subject to new tender to be effective May 1st, 2017 and are expected to increase by the rate of inflation for Toronto Water of 2.43%
 - 5 Revenue Services fees (Appendix C – Schedule 2, Water Service, Reference Numbers 33, 35, 36, 37, 39 are increased based on 1.5% inflationary factor.
 - The fee for lost or damaged automated meter reading transmitter (Reference Number 41) is recommended for increase based on actual vendor cos and US\$ exchange rate.
- All changes are summarized in Appendix 7a of this Operating Budget Notes and the 2017 Water and Wastewater Consumption Rates and Service Fees Report from the Deputy City Manager & Chief Financial Officer and General Manager for Toronto Water. This report also provides a comparison with the existing user fee rates.

Service Efficiencies (Savings of \$7.574 million gross & net)

Reduce Use of Back Up Tapes and Rely on Off-Site Backup

- Traditionally, "Backup-on-Tape" approach has been the de facto industry standard for managing data backup and recovery. Since the computer industry has advanced dramatically in the last few years, and as the cost of the hard disk and the storage size decreases, Toronto Water sees an opportunity to convert to a "live/online" backup system using online storage. That approach also provides an additional benefit in terms of significantly reduced recovery downtime.
- By reducing use of backup tapes, since a portion of the back-up will no longer be on tape, but rely on online storage only, Toronto Water will generate savings of \$0.090 million. These changes will also require Toronto Water to determine any relevant compliance issues, and also to review the current divisional retention plan and formally establish one for electronic data.

Eliminate Maintenance Contract for Hansen

- The Hansen Work Management System maintenance contract allows Toronto Water to receive version upgrades from Hansen. However, the development of the "current" version has been frozen and there will be no more updates.
- The maintenance contract also allows Toronto Water to receive emergency help, in case of the software related issues impacting the system or database. Since over the past 6 years Toronto Water never required this service, it is recommended to terminate the maintenance contract for Hansen Work Management System at its renewal in January, 2017, resulting in a saving of \$0.270 million.
- After this early termination of the maintenance contract, maintenance and support will be paid through "Time and Material" format – charging by/per incident.

Reduce Emergency Repair and Ad-hoc Customization of Applications

- Emergency repair and ad-hoc customization of applications are non-routine operating expenditures and arise only when there is a need. It is recommended to eliminate contingencies related to emergency repair and ad-hoc customization of \$0.076 million.
- Any funds for emergency programming and customization work to rectify errors in applications, customization, or ad-hoc improvement work, will be dealt with in an ad-hoc manner.

Lower Maintenance Costs as a Result of Fleet Reduction/Rationalization

- This encompasses two different initiatives:
 - Toronto Water has reviewed its current fleet list inventory and identified opportunities to eliminate 34 vehicle/equipment units. The corresponding decrease related to maintenance and fuel cost for these vehicles and equipment is estimated at \$0.218 million.
 - Fleet Services identified savings in other divisions as a result of contracting out of all preventative maintenance and repairs of non-specialized (Class 1-2) vehicles. By contracting out those services, an improvement in vehicle turnaround time of 33% at the end of the 5 year phased in implementation will be achieved, thus freeing up internal Fleet Services capacity to focus on preventative maintenance and repairs for the heavy duty and specialized vehicles, tool and training requirements. This will in turn result in a reduced divisional need for ad-hoc/emergency repairs. Anticipated savings for Toronto Water are estimated at \$0.079 million, with an incremental impact of \$0.158 million in each 2018 and 2019.

Toronto Water Reorganization – Customer Care Initiative

- After investigating industry best standards for service in a call centre and utility customer care centre environment, Toronto Water determined that a review of the current organizational structure related to customer service delivery needed to be conducted. This need was also confirmed by the challenges experienced in addressing the spike in "No Water Calls" due to frozen pipes during the extreme cold weather of early 2015.
- The review determined that Toronto Water units currently correspond and interact with customers, work in isolation of each other. As a result of the realignment of these units and centralizing customer related functions, Toronto Water will be able to realize efficiencies and reduce unnecessary overlap in responsibilities, activities and positions between units. Included in the 2017 Operating Budget are savings of \$0.747 million that can be achieved by reducing 8 positions as part of this organizational realignment. Additional information on this change is included in the Confidential Attachment accompanying this document.
- As Toronto Water continues a division-wide organizational realignment in 2018 and 2019, to create a new structure that enhances the effectiveness, efficiency and value in the delivery of Toronto Water's services, any resulting impacts will be incorporated in its future year operating budget submissions.

Water and Wastewater Production Efficiencies

- Toronto Water's commitment to work on an Energy Optimization Plan with the goal to identify optimization opportunities and strategies to address all energy aspects of water and wastewater operations resulted in reduced electricity rates and consumption totaling \$5.832 million. Some of these initiatives include:
 - Load Shifting - By pumping during off peak hours, maximizing reservoir and tank storage and taking advantage of the lower electricity prices at night, significant savings can be achieved.
 - Global adjustment days – participating in the Hydro One/ IESO defined global adjustment days when the top electricity users switch to on-site generators during a peak period can substantially reduce their annual hydro costs.
 - Transmission Operations Optimizer program (TOO) was launched in November 2015. This program optimizes pumping station operations and maximizes the use of reservoir storage to reduce peak electricity costs while maintaining supply to the distribution system and service delivery to Toronto Water customers. Projected savings from this initiative only are between of \$0.7 million to \$1.0 million annually.

Reduce Contingencies – Transfer & Haulage of Biosolids

- As a result of increased pelletizing of bio-solids at the Ashbridges Bay Wastewater Treatment Plant, Toronto Water has realized savings from its contracted services for transfer and haulage of bio-solids. The pelletizing process results in reduced transfer and haulage costs as weight from pellets is much lower than weight from bio-solids (due to elimination of water), thus reducing the delivery cost which is based on weight.
- To recognize the efficiencies that Toronto Water has achieved as a result of actively changing business practices at Ashbridges Bay Wastewater Treatment Plant, savings of \$0.263 million are included in the 2017 Operating Budget. It should be noted however, that these savings are also dependent on contract pricing remaining at the current rates.

Table 5
2017 and 2018 Plan by Program

Description (\$000s)	2018 - Incremental Increase					2019 - Incremental Increase				
	Gross Expense	Revenue	Capital Contribution	% Change	Position	Gross Expense	Revenue	Capital Contribution	% Change	Position
Known Impacts:										
Annualisations										
Lower Maintenance Costs as a result of Fleet Rationalization and Lower Interdepartmental Charges and Capital Work Delivery	(253.4)	207.4	460.8	0.1%	2.0	467.7	625.4	157.7	0.0%	6.0
Economic Factors										
COLA, Progression Pay & Step Increases	5,110.3		(5,110.3)	(1.2%)		5,781.6		(5,781.6)	(1.3%)	
Revenue										
Planned Water Rate Increase		57,282.6	57,282.6	12.9%			35,900.6	35,900.6	7.8%	
Other										
Operating Impact of Capital	3,232.8		(3,232.8)	(0.7%)	10.0	3,630.9		(3,630.9)		1.0
Sub-Total	8,343.1	57,282.6	49,400.3	11.1%	12.0	9,880.2	36,526.0	26,645.8	5.8%	7.0
Anticipated Impacts:										
Other										
Economic Factors - Non-Payroll	4,288.2		(4,288.2)	(1.0%)		6,477.6		(6,477.6)	(1.4%)	
Interdepartmental Charges Increase	1,600.7		(1,600.7)	(0.4%)		1,094.5		(1,094.5)	(0.2%)	
Anticipated Contributions and Transfers (Payments in Lieu of Taxes, TRCA Contribution)	428.6		(428.6)	(0.1%)		438.5		(438.5)	(0.1%)	
Anticipated Sale of Water Volume Decrease		(6,503.4)	(6,503.4)	(1.5%)			(6,583.4)	(6,583.4)	(1.4%)	
Anticipated Decrease in Production of Water & Wastewater Costs	(197.5)		197.5	0.0%						
Ashbridges Bay Water Treatment Plant - Technical Support, Coordination and Data Analysis						234.6		(234.6)	(0.1%)	2.0
Transfer of Assets						75.6		(75.6)	(0.0%)	1.0
Sub-Total	6,120.0	(6,503.4)	(12,623.4)	(2.8%)		8,320.9	(6,583.4)	(14,904.3)	(3.3%)	3.0
Total Incremental Impact	14,463.1	50,779.2	36,776.9	8.3%	12.0	18,201.1	29,942.6	11,741.5	2.6%	10.0

The 2017 Budget for Toronto Water results in a 2018 incremental capital-from-current contribution of \$36.777 million and a 2019 incremental capital-from-current contribution of \$11.741 million while maintaining the 2017 service levels, as discussed in the following section:

Future year incremental costs are primarily attributable to the following:

Known Impacts

- Salary and benefit cost increases (including step and progression pay increases) of \$5.110 million in 2018 and \$5.782 million in 2019.
- Operating impact of completed capital projects at cost of \$3.233 million in 2018 and \$3.631 million in 2019.
- The incremental impact of the above costs will be partially offset by savings from the fleet rationalization and lower interdepartmental charges of \$0.461 million in 2018 and \$0.158 million in 2019.
- An increase in the sale of water revenues of \$57.283 million (5% rate increase) in 2018 and \$35.901 million (3% rate increase) in 2019.

Anticipated Impacts

- Inflationary pressures for materials and supplies, contracted services and other costs of \$4.288 million in 2018 and \$6.478 million in 2019.
- Additional costs related to anticipated increase in interdepartmental service requirements of \$1.601 million in 2018 and \$1.094 million in 2019.
- An increase in anticipated contributions and transfers of \$0.429 million and \$0.438 million in 2018 and 2019 respectively.

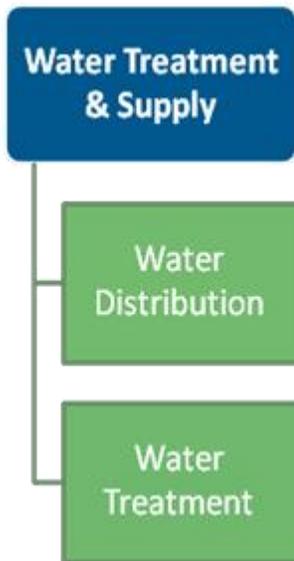
- Anticipated decrease in production cost of water supply and wastewater collection and treatment services of \$0.197 million, as well as increase in maintenance costs for assets from capital projects transferred by Metrolinx and Waterfront Toronto of \$0.076 million, and technical support at Ashbridges Bay Wastewater Treatment Plant at \$0.235 million in 2018
- Revenue loss from the projected decline of water consumption of 0.5% in each 2018 and 2019, at \$6.504 million and \$6.583 million respectively.



Part 2:

2017 Operating Budget by Service

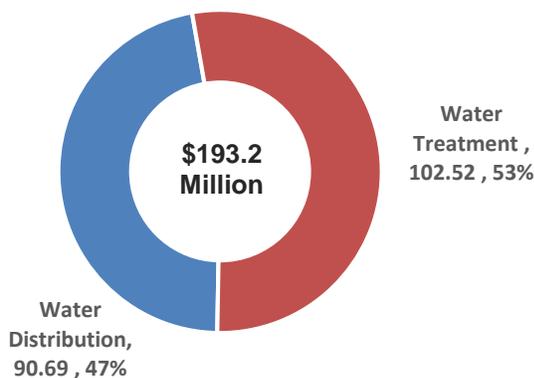
Water Treatment & Supply



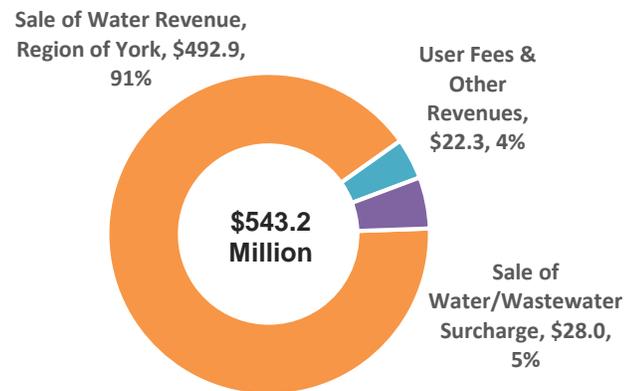
What We Do

- Treat and distribute drinking water in a safe, responsible manner in accordance with all legislated requirements.

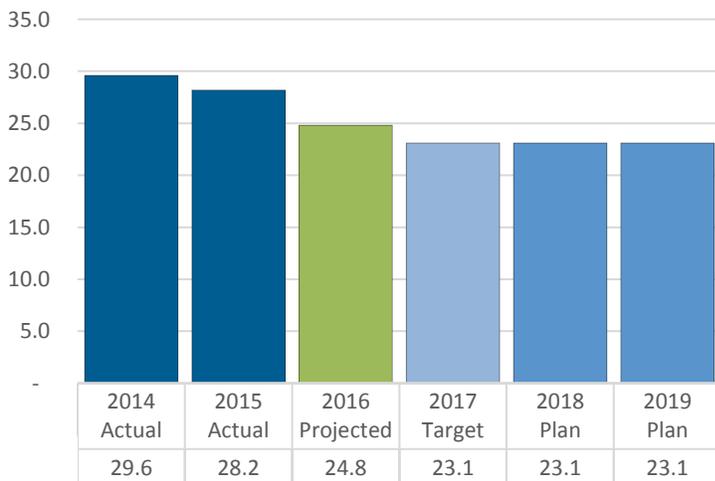
2017 Service Budget by Activity (\$Ms)



Service by Funding Source (\$Ms)



Watermain Breaks per 100 KM Water Distribution Pipe



Watermain Breaks per 100 KM of Water Distribution Pipe

- 2013 -2015 rising trend was impacted by severe cold weather fluctuations and aging watermains.
- 2016 projected actuals and 2017-2019 planned target is to maintain watermain break and repair levels of typical climate years with improved state-of-good repair program.

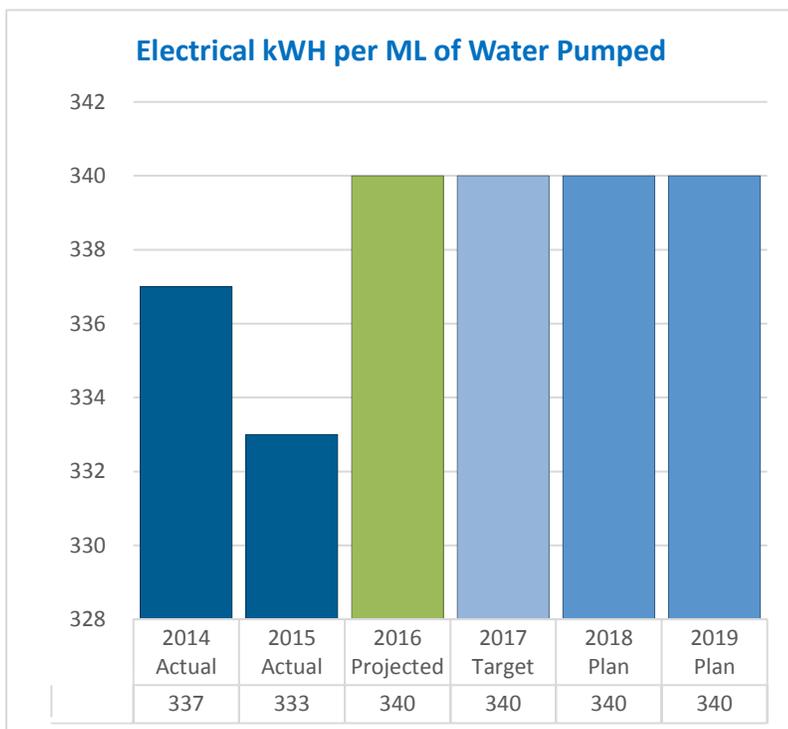
2017 Service Levels Water Treatment and Supply

Sub-Activity/Type		Status	2014	2015	2016	2017 Service Level (Note 1)	2017 Recommended Service Level
Water Distribution	Service Connections	Approved	Meeting the 40 to 100 psi requirement			Service Connections (% time operating within the 40 to 100 PSI requirement)	99.5% of time operating within the 40 to 100 PSI requirements
		Actual	99.4%	99.5%	n.a		n.a
	Water Distribution System	Approved	20.8 mainbreaks per 100 km of pipe			Water Distribution System (# watermain breaks per 100km of pipe)	23.1 mainbreaks per 100 km of pipe
		Actual	29.6%	28.2%	n.a		n.a.
Water Treatment	Water Pumping Stations	Approved	In compliance with applicable legislation			Water Pumping Stations (# kWh per ML of water pumped)	340 kWh/ML of water pumped
		Actual	337	333	n.a		n.a
	Water Treatment Plants	Approved	Meeting velocity and headloss design guidelines			Water Treatment Plants (# non-compliance water treatment events)	0 non-compliance water treatment incidents
		Actual	0	1	n.a		n.a
	Water Transmission Mains	Approved	In compliance with applicable legislation			Water Transmission Mains (# transmission valve chambers inspected)	1,500 transmission valve chambers inspected
		Actual	828	1,075	n.a		n.a
	Water Storage Reservoirs	Approved	Meeting requirements for emergency storage and fire flows (consistently maintain 24 hours of storage capacity)			Water Storage Reservoirs (# ML of storage capacity maintained)	1,895 ML of storage capacity maintained
		Actual	1,895	1,895	n.a		n.a

Note 1: The changes in the table above are not changes to Toronto Water's service levels but rather provide additional description/clarification and/or replace reference services to better reflect the service level.

Overall, the 2017 Service Levels are consistent with the approved 2016 Service Levels for Water Treatment and Supply.

Service Performance



- 2014-2015 actual usage of electricity per mega liter of water pumped is lower than the 340 kWh target.
- Toronto Water continues with efforts to achieve the 340kWh per mega liter of water planned target in 2016, and also over the 2017-2019 period.

Table 6
2017 Service Budget by Activity

(\$000s)	2016		2017 Operating Budget						2017 Rec. Budget vs. 2016 Budget		Incremental Change				
	Budget		Base Budget	Service Changes	Base Budget	Base Budget vs. 2016 Budget	% Change	New/Enhanced	Rec. Budget		2018 Plan		2019 Plan		
	\$	\$	\$	\$	\$	%	\$	\$	\$	%	\$	%	\$	%	
GROSS EXP.															
Water Distribution	90,242.8		91,020.8	(327.0)	90,693.8	451.0	0.5%		90,693.8	451.0	0.5%	2,735.5	3.0%	2,581.6	2.8%
Water Treatment	104,685.4		106,560.3	(4,035.7)	102,524.6	(2,160.8)	(2.1%)		102,524.6	(2,160.8)	(2.1%)	3,245.6	3.2%	6,955.5	6.6%
Total Gross Exp.	194,928.2		197,581.1	(4,362.6)	193,218.5	(1,709.8)	(0.9%)		193,218.5	(1,709.8)	(0.9%)	5,981.1	3.1%	9,537.1	4.6%
REVENUE															
Water Distribution	241,068.3		264,028.9	5.0	264,033.9	22,965.5	9.5%		264,033.9	22,965.5	9.5%	10,791.3	4.1%	6,393.4	2.3%
Water Treatment	271,148.3		279,085.7	66.3	279,152.0	8,003.7	3.0%		279,152.0	8,003.7	3.0%	11,089.8	4.0%	6,456.9	2.2%
Total Revenues	512,216.7		543,114.6	71.2	543,185.9	30,969.2	6.0%		543,185.9	30,969.2	6.0%	21,881.0	4.0%	12,850.3	2.2%
CAPITAL CONTRIBUTION															
Water Distribution	150,825.5		173,008.1	331.9	173,340.0	22,514.5	14.9%		173,340.0	22,514.5	14.9%	8,055.8	4.6%	3,811.8	2.1%
Water Treatment	166,462.9		172,525.4	4,101.9	176,627.4	10,164.5	6.1%		176,627.4	10,164.5	6.1%	7,844.2	4.4%	(498.6)	(0.3%)
Total Capital Contribution	317,288.4		345,533.5	4,433.9	349,967.4	32,679.0	10.3%		349,967.4	32,679.0	10.3%	15,899.9	4.5%	3,313.2	0.9%
Approved Positions	760.0		761.8	(2.2)	759.6	(0.4)	(0.1%)		759.6	(0.4)	(0.1%)	3.1	0.4%	2.3	0.3%

The 2017 Operating Budget for *Water Treatment and Supply* is \$193.218 million gross and \$543.186 million in revenue, resulting in a \$349.967 million budgeted capital-from-current contribution. It reflects a decrease of \$1.710 million or 0.9% over the 2016 Approved Budget gross expenditures and an increase of \$32.679 million or 10.3% over the 2016 Approved Capital Contribution budget.

The Water Treatment & Supply Service treats and supplies 433 billion liters of safe drinking water to 3.6 million residents and business annually, in a safe, responsible manner in accordance with all legislated requirements. This service is provided through Water Distribution and Water Treatment activities.

- Base budget pressures in Water Treatment and Supply Service are primarily due to:
 - Increased salary and benefit costs of \$1.627 million (including progression pay costs and step increases), and higher utility costs and costs of other materials and supplies totaling \$3.367 million, which are mostly related to higher usage of power and chemicals in Water Treatment Plants.
 - Additional cost of \$1.511 million are required to account for higher volume of materials and restoration work for watermain breaks anticipated for 2017.
 - There will also be incremental costs arising from previously approved capital projects for the linear infrastructure inspection scans (CCTV) of \$0.208 million.
- The above base budget cost increases were partially offset through:
 - A combination of *base cost reduction options* across all activities, including revenues from the Water Loss and Leak Detection Program (\$0.106 million), lower interdivisional charges reflecting lower utility cut repairs costs (\$1.026 million), savings resulting from payments in lieu of taxes based on the current value assessment for treatment plants (\$0.482 million), and lower water production costs, based on the actual cost review (\$0.216 million).
 - *Additional revenues* from new water service connections (\$2.993 million) will offset pressures arising from lower revenues from Region of York and private water fees totaling \$1.116 million.
- To help mitigate the base pressures, the service was able to achieve savings through reduction options totaling \$4.434 million, consisting mostly of base expenditure changes in materials, supplies and other non-salary costs (\$0.782 million), and efficiency savings from optimization of water production electricity costs (\$2.997 million) and other initiatives, such as fleet rationalization and reduction of emergency repair and service contract costs.

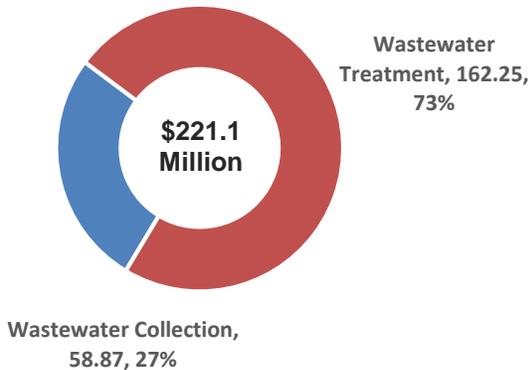
Wastewater Collection & Treatment



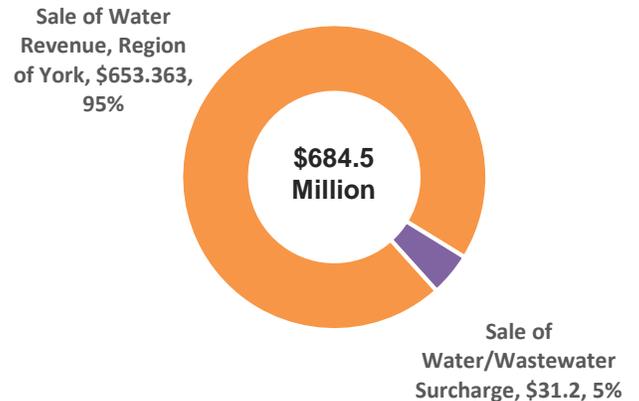
What We Do

- Collect and treat wastewater in a safe, responsible manner in accordance with all legislated requirements.

2017 Service Budget by Activity (\$Ms)



Service by Funding Source (\$Ms)



Wastewater Main Backups per 100 km Wastewater Main



- Wastewater Main Backups per 100 km Wastewater Main**
- 2012 -2015 rising trend was impacted by severe storms causing wastewater capacity constraints.
- 2016 projected actuals and 2017-2019 target and plan is to maintain wastewater main back-ups and repair levels of typical climate years.

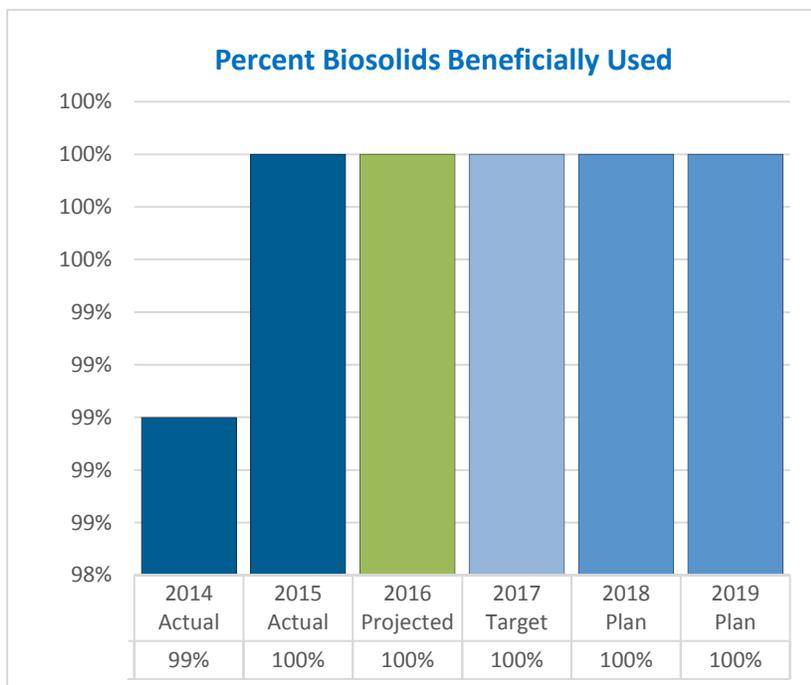
2017 Service Levels Wastewater Collection and Treatment

Sub-Activity/Type		Status	2014	2015	2016	2017 Service Level (Note 1)	2017 Recommended Service Level
Wastewater Collection	Lateral Connection	Approved	Basement flooding being reduced through capital investment			Lateral Connection (% sewer service line blocked requests resulting in repair or rehab (Work Orders))	30% sewer service line blocked requests resulting in repair or rehab (Work Orders)
		Actual	31%	33%	n.a		n.a
	Wastewater Collection System	Approved	5.27 mainline backups per 100 km of pipe			Wastewater Collection System (# mainline backups per 100km of pipe)	5.27 mainline backups per 100km of pipe
		Actual	5.27	5.27	n.a		n.a
Wastewater Treatment	Solids Management	Approved	Consistently meeting compliance limits in Nutrient Management Act			Solids Management (% samples not meeting NMA requirements)	0% of samples not meeting NMA requirements
		Actual	0%	0%	n.a		n.a
	Wastewater Treatment Plants	Approved	In compliance with all applicable legislation			Wastewater Treatment Plants (# non-compliance wastewater events)	0 non-compliance wastewater events
		Actual	1	6	n.a		n.a
	Wastewater Treatment Plants	Approved	Meeting legislative compliance			Wastewater Pumping Stations (% wastewater pumping stations meeting legislative requirements)	100% of wastewater pumping stations meeting legislative requirements
		Actual	100%	100%	n.a		n.a

Note 1: The changes in the table above are not changes to Toronto Water's service levels but rather provide additional description/clarification and/or replace the reference services to better reflect the service level.

Overall, the 2017 Service Levels are consistent with the approved 2016 Service Levels for Wastewater Collection and Treatment.

Service Performance



- **Percent Biosolids Beneficially Used**
- 2013 -2015 rising trend was result of continuing efforts to increase beneficial use by pelletizing biosolids.
- 2016 actuals and 2017-2019 target and plan are projected to maintain beneficial use to 100% target level.

Table 6

2017 Service Budget by Activity

(\$000s)	2016	2017 Operating Budget								Incremental Change				
	Budget	Base Budget	Service Changes	Base Budget	Base Budget vs. 2016 Budget		New/Enhanced	Rec. Budget	2017 Rec. Budget vs. 2016 Budget		2018 Plan		2019 Plan	
					\$	%			\$	%	\$	%	\$	%
GROSS EXP.														
Wastewater Collection	58,484.5	59,038.7	(172.8)	58,865.9	381.3	0.7%		58,865.9	381.3	0.7%	1,587.6	2.7%	1,648.3	2.7%
Wastewater Treatment	164,336.3	166,277.6	(4,028.6)	162,249.1	(2,087.2)	(1.3%)		162,249.1	(2,087.2)	(1.3%)	5,691.8	3.5%	6,162.0	3.7%
Total Gross Exp.	222,820.8	225,316.3	(4,201.4)	221,114.9	(1,705.9)	(0.8%)		221,114.9	(1,705.9)	(0.8%)	7,279.3	3.3%	7,810.2	3.3%
REVENUE														
Wastewater Collection	158,122.5	172,252.6	3.3	172,255.9	14,133.3	8.9%		172,255.9	14,133.3	8.9%	7,088.9		4,182.5	2.3%
Wastewater Treatment	484,690.4	512,275.7	10.0	512,285.8	27,595.3	5.7%		512,285.8	27,595.3	5.7%	22,006.7		12,809.7	2.4%
Total Revenues	642,813.0	684,528.3	13.3	684,541.6	41,728.7	6.5%		684,541.6	41,728.7	6.5%	29,095.6		16,992.2	2.3%
CAPITAL CONTRIBUTION														
Wastewater Collection	99,638.0	113,213.9	(176.1)	113,390.0	13,752.0	13.8%		113,390.0	13,752.0	13.8%	5,501.3	4.9%	2,534.2	2.1%
Wastewater Treatment	320,354.1	345,998.1	(4,038.6)	350,036.7	29,682.6	9.3%		350,036.7	29,682.6	9.3%	16,314.9	4.7%	6,647.7	1.8%
Total Capital Contribution	419,992.2	459,212.0	(4,214.7)	463,426.7	43,434.5	10.3%		463,426.7	43,434.5	10.3%	21,816.2	4.7%	9,182.0	1.9%
Approved Positions	864.6	863.9	(4.3)	859.6	(5.0)	(0.6%)		859.6	(5.0)	(0.6%)	7.9	0.9%	6.5	0.7%

The 2017 Operating Budget for *Wastewater Collection & Treatment* is \$221.115 million gross and \$684.542 million in revenue, resulting in a \$463.427 million in a capital-from-current contribution. It reflects a decrease of \$1.706 million or 0.8% over the 2016 Approved Budget gross expenditures and an increase of \$43.435 million or 10.3% over the 2016 Approved Budget Capital Contribution.

The Wastewater Collection & Treatment Service collects and treats 400 billion liters of wastewater annually, in a safe, responsible manner in accordance with all legislated requirements. This service is provided through Wastewater Collection and Wastewater Treatment activities.

- Base budget pressures in *Wastewater Collection and Treatment Service* are primarily due to:
 - Increased salary and benefit costs of \$1.732 million (including progression pay costs and step increases), and higher utility costs and costs of other materials and supplies totaling \$3.669 million, which are mostly related to higher usage of power and chemicals in Wastewater Treatment Plants.
 - Additional cost of \$0.820 million are required to account for higher volume of materials and restoration work for sewer breaks anticipated for 2017.
- The above base budget cost increases were partially offset through:
 - A combination of *base cost reduction options* across all activities, lower interdivisional charges reflecting lower utility cut repairs costs (\$0.875 million), and savings resulting from payments in lieu of taxes based on the current value assessment for wastewater treatment plants (\$0.574 million).
 - As a result of the implementation of a new cogeneration plant at Humber Wastewater Treatment Plant coming on-line in 2017, there will be a net saving of \$0.366 million, mostly in electricity costs.
 - *Additional revenues* from new water service connections (\$1.681 million), recoveries for work on capital projects (\$0.936 million) and higher volume of industrial waste treatment agreements anticipated for 2017 (\$2.050 million).

To help mitigate the base pressures, the service was able to achieve savings through reduction options totaling \$4.215 million, consisting mostly of base expenditure changes in materials, supplies and other non-salary costs (\$0.430 million), and efficiency savings from optimization of wastewater treatment electricity costs (\$2.845 million), reduced transfer and haulage costs of bio-solids (\$0.263 million) and other initiatives such as fleet rationalization and reduction of emergency repair and service contract costs.

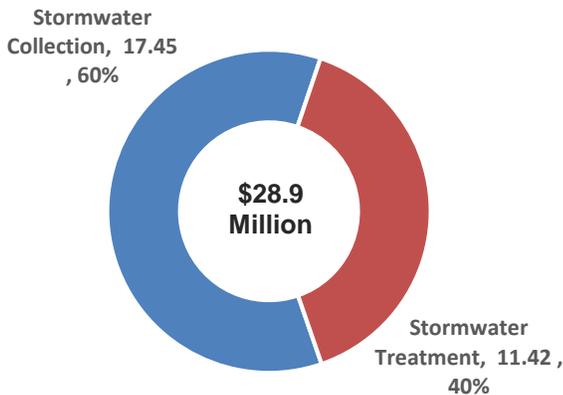
Stormwater Management



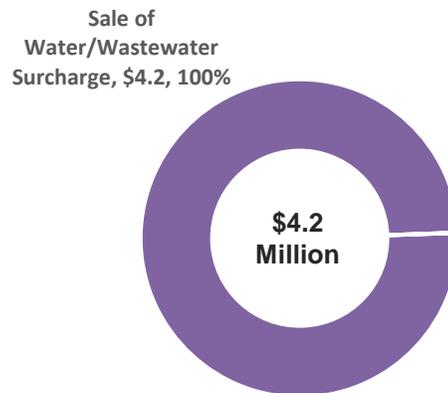
What We Do

- Collect and treat stormwater in a safe, responsible manner in accordance with all legislated requirements.

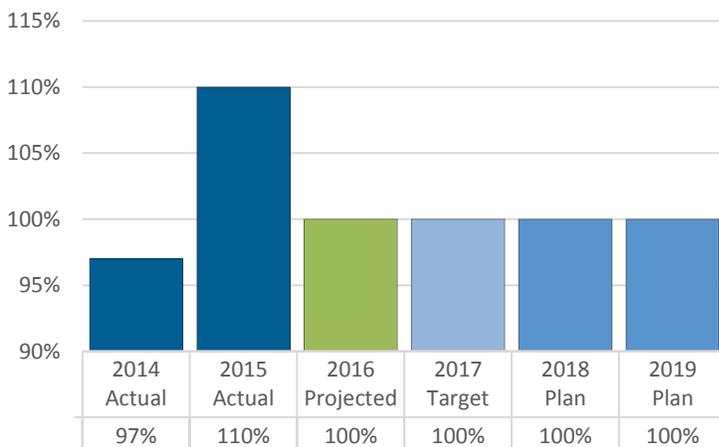
2017 Service Budget by Activity (\$Ms)



Service by Funding Source (\$Ms)



Percent Catch Basins Cleaned



- **Catch basins cleaned**
- 2012 -2015 stable trend with high effort in cleaning catch basins to improve stormwater collection
- 2016 projected actuals and 2017 target and 2018-2019 plan is to maintain linear catch basin cleaning to target levels.

2017 Service Levels Stormwater Management

Sub-Activity/Type		Status	2014	2015	2016	2017 Service Level (Note 1)	2017 Recommended Service Level
Stormwater Collection	Stormwater Collection System	Approved	Cost of storm pipes maintained is \$1232/km			Stormwater Collection System (% catch basins cleaned)	100% of catch basins cleaned
		Actual	97%	110%	n.a		n.a
	Stormwater Storage Facilities	Approved	Meeting all Certificate of Approval requirements			Stormwater Storage Facilities (ML of dedicated (designed) stormwater storage capacity)	1,248 ML of dedicated (designed) stormwater storage capacity
		Actual	1,242	1,246	n.a		n.a
Stormwater Treatment	Stormwater Treatment Facilities	Approved	Meeting all Certificate of Approval requirements			Stormwater Treatment Facilities (# drainage area (hectares) where quality control provided)	7,065 hectares of drainage area where quality control provided
		Actual	6,979	6,990	n.a		n.a
	Stormwater Conveyance & Control System	Approved	Meeting all Certificate of Approval requirements			Stormwater Conveyance & Control System (Stormwater control & conveyance systems meeting all Certificates of Approval requirements)	Meeting all Certificate of Approval Requirements
		Actual	100%	100%	n.a		n.a

Note 1: The changes in the table above are not changes to Toronto Water's service levels but rather provide additional description/clarification and/or replace the reference services to better reflect the service level.

Overall, the 2017 Service Levels are consistent with the approved 2016 Service Levels for Stormwater Management.

Table 6

2017 Service Budget by Activity

(\$000s)	2016	2017 Operating Budget							2017 Rec. Budget vs. 2016 Budget		Incremental Change				
	Budget	Base Budget	Service Changes	Base Budget	vs. 2016 Budget	% Change	New/Enhanced	Rec. Budget			2018 Plan	2019 Plan			
	\$	\$	\$	\$	\$	%	\$	\$	\$	%	\$	%	\$	%	
GROSS EXP.															
Stormwater Collection	16,808.9	17,506.3	(53.9)	17,452.4	643.5	3.8%		17,452.4	643.5	3.8%	392.5	2.2%	541.5	3.0%	
Stormwater Treatment	6,859.8	11,564.7	(144.9)	11,419.8	4,560.0	66.5%		11,419.8	4,560.0	66.5%	556.8	4.9%	312.3	2.6%	
Total Gross Exp.	23,668.8	29,071.0	(198.7)	28,872.2	5,203.5	22.0%		28,872.2	5,203.5	22.0%	949.3	3.3%	853.8	2.8%	
REVENUE															
Stormwater Collection	2,694.8	3,072.7		3,072.7	377.9	14.0%		3,072.7	377.9	14.0%	6.0	0.2%	75.1	2.4%	
Stormwater Treatment	988.4	1,128.0		1,128.0	139.6	14.1%		1,128.0	139.6	14.1%	4.0	0.4%	25.0	2.2%	
Total Revenues	3,683.2	4,200.7		4,200.7	517.5	14.0%		4,200.7	517.5	14.0%	10.0	0.2%	100.1	2.3%	
CAPITAL CONTRIBUTION															
Stormwater Collection	(14,114.1)	(14,433.6)	(53.9)	(14,379.7)	(265.6)	1.9%		(14,379.7)	(265.6)	1.9%	(386.5)	2.7%	(466.4)	3.2%	
Stormwater Treatment	(5,871.4)	(10,436.7)	(144.9)	(10,291.8)	(4,420.4)	75.3%		(10,291.8)	(4,420.4)	75.3%	(552.8)	5.4%	(287.3)	2.6%	
Total Capital Contribution	(19,985.6)	(24,870.3)	(198.7)	(24,671.5)	(4,686.0)	23.4%		(24,671.5)	(4,686.0)	23.4%	(939.3)	3.8%	(753.7)	2.9%	
Approved Positions	134.1	135.0	(1.5)	133.5	(0.6)	(0.5%)		133.5	(0.6)	(0.5%)	1.0	0.7%	1.2	0.9%	

The 2017 Operating Base Budget for Stormwater Management Service is \$28.872 million gross. It reflects an increase of \$5.203 million or 22% over the 2016 Approved Budget gross expenditures. Stormwater Management service does not generate any capital-from-current contribution as its revenues are not sufficient to cover gross expenditures for this service. \$24.671 million in Water Treatment & Supply and Wastewater Collection & Treatment revenues that would otherwise be directed to capital-from-current contributions, are required to support the Stormwater Management service operating requirements.

The Stormwater Management Service protects private property and the environment from stormwater runoff. This service is provided through Stormwater Collection and Stormwater Treatment activities.

- Base budget pressures in Stormwater Management Service are primarily due to:
 - Increased salary and benefit costs of \$0.328 million (including progression pay costs and step increases), and inflationary increases related to the annual budget contribution to the Toronto Water and Region Authority's operations.
 - Additional cost of \$0.169 million are required to account for higher volume of materials and restoration work related to erosion control work anticipated for 2017.
- The above base budget cost increases were partially offset through:
 - Lower interdivisional charges of \$0.126 million and other base expenditure savings totaling \$0.051 million.
 - Increased fee revenues of \$0.432 million.

To help mitigate the base pressures, the service was able to achieve savings service through reduction options totaling \$0.198 million, consisting mostly of base expenditure changes in materials, supplies and other non-salary costs (\$0.060 million), and efficiency savings from various initiatives (\$0.138 million).



Part 3:

Issues for Discussion

Issues Impacting the 2017 Budget

2016 Operating Budget Funding

- Toronto Water is fully self-sustaining and does not rely on the municipal property tax levy for service delivery funding or borrowing/debenture financing for capital program. Operating and capital investments are funded from revenues generated by water and sewage rates established each year by Council and included in the City's By-law (Municipal Code, Chapter 849: Water and Sewage Services). Other sources of funding include revenue from the sale of water to York Region, industrial waste surcharges, private water agreements, service charges, and sundry revenue.
- In 2014, City Council endorsed the direction that Toronto Water's budgets prepared for 2015 and 2016 be premised on 8% water and wastewater consumption rate increases, followed by successive 5% increases in 2017 and 2018 in order to reinstate approximately \$1 billion in capital funding lost from a systematic decline in consumption and to fund emerging projects.
- For 2017, Toronto Water's 10 Year Capital Plan has been revised to allow Toronto Water to deliver on key priorities, while also addressing emerging service improvement projects. In accordance with the project delivery schedule, the following rate increases are recommended and incorporated in the 2017 Water and Wastewater Rate Model:
 - 5% in 2017 and 2018.
 - 3% from 2019 to 2026.
- The 2017 Water and Wastewater Rate increase of 5% and other sources of funding will generate an additional \$54.692 million in revenues (net of projected consumption changes of \$11.293 million in 2017) compared to the 2016 projected budgeted consumption. All of that revenue will be dedicated to fund Toronto Water's Capital Budget in 2017.
- In addition to water rate increases, a staff report titled "Funding Options for Paying for the Toronto Water Capital Program, was considered and approved concurrently with the 2016 Budget Process.
 - The Funding Options report highlighted the growing needs of the stormwater management capital program, which, as a portion of the total capital program, was projected to grow from 18% in 2015 to 40% in 2025. The report recommended the development of an implementation plan to establish a new fee that is dedicated to funding stormwater management projects. This new fee would result in a separate funding structure for stormwater management services based on alternative parameters including per lot charges and impervious area. The implementation report completion is anticipated for spring of 2017. If approved, the plan would be executed in 2017 and 2018, and the stormwater charge would come into effect in 2019.
 - It should be underlined that the 2017 Operating Budget is based on the current consumption based water rate funding and all necessary revenues for the Capital Plan are to be generated by the rate increases included in the 2017 Water and Wastewater Rates and Service Report until such time that Council approves a new funding structure.
- The following Charts show the 2017 combined water and wastewater consumption rates and the rate increase impact on average residential, as well as commercial and industrial customers, based on their average consumption.

Chart 1 – Water and Wastewater Rate Increase

Annual Consumption	Paid on or before the due date, \$/m3	Paid after the due date, \$/m3
Block 1 - All consumers of water, including the first 5,000 cubic metres per year consumed by Industrial users ("Block 1 rate")	3.6225	3.8131
Block 2 - Industrial process – use water consumption over 5,000 cubic metres per year, representing a 30% reduction from the Block 1 Rate ("Block 2 rate")	2.5356	2.6690

Chart 2 – 2015 Water Rate Impact

Type of Property	Average Consumption m3/Y	2016 Cost	2017 Projected	2017 Rate Increase Impact	
Residential	265	\$914	\$960	\$46	5.0%
Commercial	100,000	\$345,009	\$362,260	\$17,250	5.0%
Industrial	100,000	\$247,714	\$260,099	\$12,386	5.0%
Large Industrial	1,000,000	\$2,421,242	\$2,542,304	\$121,062	5.0%

- Additional details are available in the 2017 Water and Wastewater Consumption Rates and Service Fees report.

User Fees

- In addition to the water and waste water surcharges, Toronto Water receives revenues from various user fees.
- In accordance with Council's approved User Fee Policy, inflationary factors that reflect service specific cost increases are applied in order to recover the full costs. As a result, the 2017 Operating Budget includes additional revenues of \$0.084 million, based on inflationary factor of 2.43% for water and wastewater user fees and inflationary factor of 1.5% applicable to user fees charged by Revenue Services. Increases to the existing user fees are effective January 1, 2017 and they are applied automatically.
- The new user fees will be approved concurrently with the 2017 Operating Budget, based on the recommendations presented in 2017 Water and Wastewater Consumption Rates and Service Fees report, which are also reflected in this Operating Budget Notes. A breakdown of user fee changes is presented in Appendix 7a.

Issues Impacting Future Years

Legislative and Regulatory Compliance and Other Operating Cost Pressures

- One of the main challenges facing Toronto Water in future years will be the management of the continuously increasing costs from both, internal and external sources. Personnel costs and inflationary pressures related to costs for materials and supplies, electricity, chemicals and parts, as well as machinery and services are ongoing, as well as increased requirements and frequent changes in legislation. The latter is particularly challenging in terms of planning and allocating appropriate staff resources to maintain legislative compliance.
- In 2017 alone, non-salary inflationary increases approximate \$7.113 million, with additional \$3.687 million required to accommodate cost of living adjustments and progression and step increases.
- As a result of legislative requirements and the need to comply with Provincial and Federal regulations, Toronto Water continues to experience increased operating costs. Toronto Water will continue to perform trials and testing to determine the optimal performance of treatment plants and pumping stations, since fluctuations in hydro costs were observed as different trials were conducted in order to stabilize hydro requirements. Some of those initiatives have already resulted in significant savings (\$5.832 million) in 2017, that assisted Toronto Water in offsetting some of other base expenditure pressures
- Similarly, costs resulting from the operating impact of completed capital projects for additional parts and contracted services such as Ashbridges Bay Treatment Plant Upgrades (Aeration Tanks and other plant and equipment upgrades) and Island Treatment Plant Upgrades (chemicals and residual management) amount to \$0.589 million. In 2017, these costs were fully offset by savings from the new cogeneration system at the Humber Treatment Plant, but incremental costs for maintenance of new equipment and facilities coming on-line (estimated at \$9.820 million over the next 10 years) will remain to be a challenge for Toronto Water.
- Toronto Water continues to review these additional costs together with the existing maintenance program and determine whether there is any opportunity for efficiencies such that these amounts can be reduced.

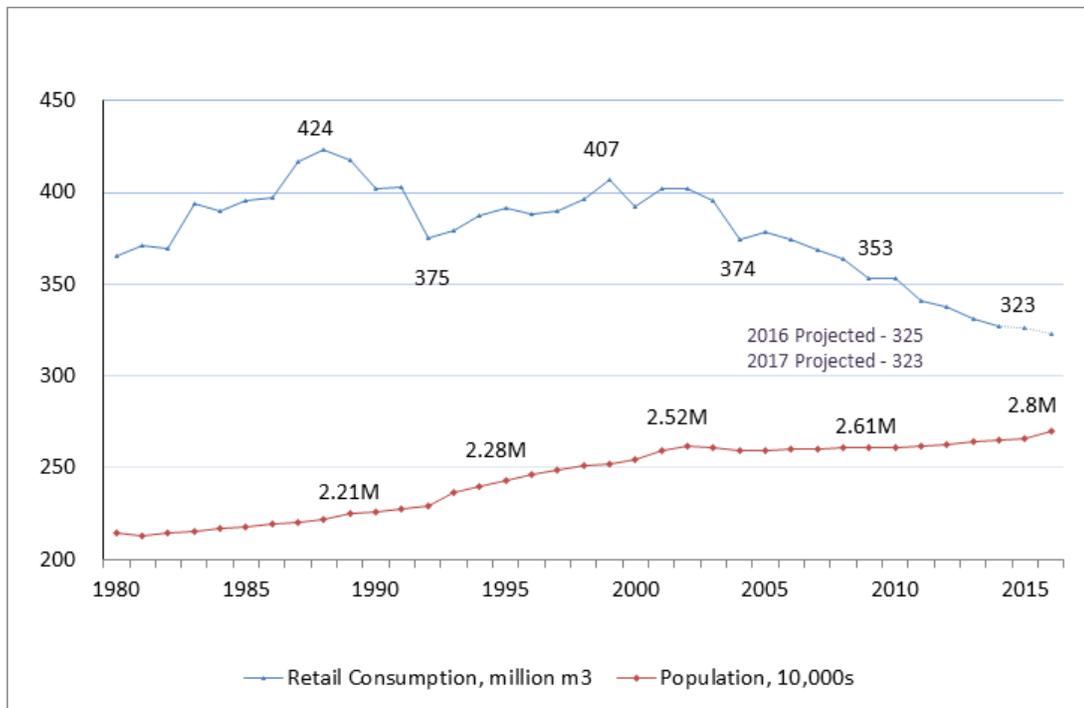
Severe Winter Weather

- As a result of extremely cold winter weather, Toronto Water experienced a high level of watermain breaks, leaking water services and frozen water services in 2015 (approximately 2,546 in first quarter of 2015 compared to 1,094 in 2013 and 2,607 in 2014).
- Although 2016 weather conditions were not as extreme, Toronto Water continues to plan for emergency situations caused by the severe weather conditions. The 2017 Operating Budget includes additional funding of \$2.5 million in order to ensure operational resilience and minimize risks to assets during extreme weather events.

Impact of Lower Water Consumption Forecasts on Water and Wastewater Rate Revenues

- Over the last decade, despite the increase in population, there has been a trend towards reduced water consumption as shown in Chart 3 below. Any additional revenues generated by annual rate increases over that period have been reduced by the steady decline in water consumption predominantly attributed to water efficiency measures and economic factors.

Chart 3 - Toronto Retail Water Consumption



- A systematic and permanent decline (October to April) in base water consumption of 1.7% annually on average has been recorded over the last 10 year period. Summer consumption although more weather dependent, also shows a reduction over the same period of 1.9% annually. Toronto's water consumption projected to 2016 year-end is estimated at 325 million cubic meters which represents a substantial drop from 374 million cubic metres in 2005.

 - While water consumption continues to decline in 2016, the rate of consumption decline is actually less than what had been forecast for budgeting purposes as part of the 2016 Budget.
 - As noted, projected year-end consumption is estimated at 325 million cubic meters, while the 2016 forecast was based on consumption of 321 million cubic meters.
- The 2017 Water and Wastewater Model assumes that the 2017 and future year consumption (2018-2026) will continue to decline further by 0.5% annually.
- Upon completion of the automated water meter installation across the City, staff will have much more precise consumption data and will be able to provide a more accurate consumption forecast going forward.
- Additional detail on historical and forecasted water consumption and production, as well as its impact on the Toronto Water Capital Reserve is available in the 2017 Water and Wastewater Consumption Rates and Service Fees report.



Appendices

Appendix 1

2016 Service Performance

Key Service Accomplishments

In 2016, Toronto Water accomplished the following:

- ✓ Ongoing optimization at treatment plants and pumping stations to minimize energy costs while meeting required legislative standards.
- ✓ Transmission Operations Optimizer (TOO) project completed reducing the total cost of electrical consumption by optimizing the operations of the pumping of treated water -- received a Toronto Hydro incentive cheque of \$1.6 million.
- ✓ Water Meter Program, which began in 2010, in final year of implementation. By the end of 2016, approximately 470,500 or 99% of all customers have been upgraded to the new automated system. Expected annual operating savings is approximately \$5 million and new annual revenue of \$27 million.
- ✓ Toronto Water's laboratory successfully underwent a full external assessment by the Canadian Association for Laboratory Accreditation acquiring full accreditation for another two years.
- ✓ As of September 1, 2016, received and processing 3,018 Basement Flooding Protection Program applications to provide financial subsidy to install flood protection devices such as backwater valves.
- ✓ Ongoing education and outreach program attending 173 outreach events with an estimated attendance of 8.3 million people as reported by event organizers.
- ✓ Continued implementation of the water conservation projects related to the Industrial Water Rate Program resulted in estimated water savings of 3.75 million m³ per year.
- ✓ The Dental Sector has a greater than 80% compliance rate for managing dental fillings as required by the new Sewers Bylaw Amendments introduced in February 2016.
- ✓ Repaired approximately 975 watermain breaks and 760 water service lines/curb stops.
- ✓ The Ministry of Environment and Climate Change (MOECC) has completed annual inspections at the City's water treatment facilities and there have been no major non-conformance issues identified

Appendix 2

2017 Operating Budget by Expenditure Category

Program Summary by Expenditure Category

Category of Expense (\$000's)	2014	2015	2016	2016	2017	2017 Change		Plan	
	Actual	Actual	Budget	Projected	Rec'd.	from 2016		2018	2019
	\$	\$	\$	\$	\$	\$	%	\$	\$
Salaries and Benefits	153,095.8	159,559.4	171,620.6	163,494.6	174,919.8	3,299.2	1.9%	181,258.9	188,075.0
Materials and Supplies	91,569.2	93,668.4	107,740.5	102,140.5	106,973.4	(767.1)	(0.7%)	110,871.7	119,458.5
Equipment	2,315.0	1,864.7	2,822.2	2,822.2	3,073.0	250.8	8.9%	3,896.4	3,981.2
Services & Rents	48,900.3	62,547.7	57,162.1	56,862.1	59,090.6	1,928.6	3.4%	60,686.6	61,974.6
Contributions to Capital	619,814.7	679,404.8	717,293.0	717,293.0	788,722.6	71,429.5	10.0%	788,722.6	825,499.5
Contributions to Reserve/Res Funds	5,628.3	8,828.8	9,645.7	9,645.7	10,216.9	571.1	5.9%	10,059.2	9,901.5
Other Expenditures	27,227.2	19,510.2	20,072.6	20,072.6	19,174.1	(898.5)	(4.5%)	19,602.7	20,041.2
Interdivisional Charges	68,868.3	68,721.8	72,356.1	72,356.1	69,757.9	(2,598.2)	(3.6%)	71,039.9	72,184.4
Total Gross Expenditures	1,017,418.9	1,094,105.6	1,158,712.8	1,144,686.8	1,231,928.2	73,215.3	6.3%	1,246,137.9	1,301,115.9
Interdivisional Recoveries	79.3	182.2	25.0	25.0		(25.0)	(100.0%)		
User Fees & Donations	44,167.5	53,919.6	43,802.3	52,811.1	52,534.3	8,732.0	19.9%	52,534.3	52,534.3
Transfers from Capital Fund	2,354.9	3,313.4	2,440.9	2,440.9	3,769.1	1,328.2	54.4%	3,769.1	3,769.1
Contribution from Reserve/Reserve Funds		195.0	195.0	195.0	195.0			195.0	195.0
Sale of Water and Sundry Revenues	970,817.2	1,036,495.4	1,112,249.6	1,111,249.6	1,175,429.8	63,180.2	5.7%	1,226,416.4	1,256,359.0
Total Revenues	1,017,418.9	1,094,105.6	1,158,712.8	1,166,721.6	1,231,928.2	73,215.3	6.3%	1,282,914.8	1,312,857.4
Total Net Expenditures	0.0	0.0	(0.0)	(22,034.8)		(0.0)	100.0%	36,776.9	11,741.5
Approved Positions	1,752.0	1,624.7	1,758.7	1,644.7	1,752.7	(6.0)	(0.3%)	1,764.7	1,774.7

* Based on the 2016 Q2 Operating Variance Report

For additional information regarding the 2016 Q2 operating variances and year-end projections, please refer to the attached link for the report entitled "Operating Variance Report for the Six-Month Period Ended June 30, 2016" approved by City Council at its meeting on October 5, 2015.

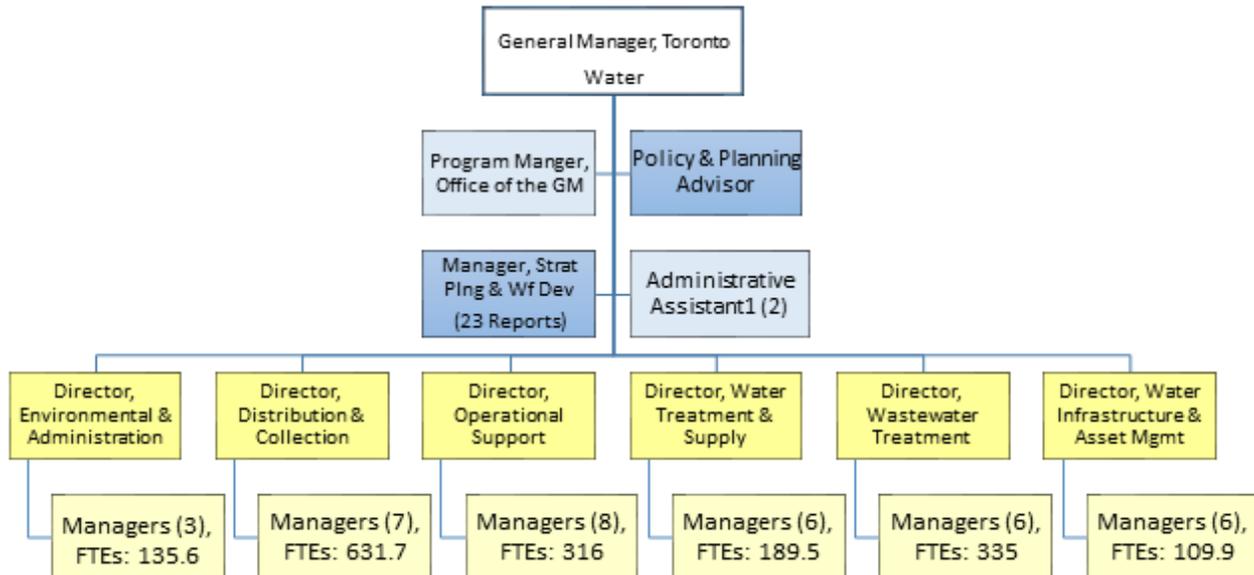
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.EX17.15>

Impact of 2016 Operating Variance on the 2017 Operating Budget

- Utility savings of \$5.832 million are included in the 2017 Operating Budget to account for impact of various energy efficiency initiatives undertaken by Toronto Water.
- A water consumption decline of 0.5% projected for 2016 year-end was taken into account in developing the current and future year consumption projections in the 2017 Water and Wastewater Rate Model.

Appendix 3

2017 Organization Chart



2017 Total Complement

Category	Senior Management	Management	Exempt Professional & Clerical	Union	Total
Permanent	1.0	170.0	179.0	1,306.0	1,656.0
Temporary		5.0	2.0	89.7	96.7
Total	1.0	175.0	181.0	1,395.7	1,752.7

Appendix 4

Summary of 2017 Service Changes

2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID		Citizen Focused Services B Program - Toronto Water	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority		Gross Expenditure	Revenue	Net	Approved Positions		
2017 BC Recommended Base Budget Before Service Change:			450,779.8	1,231,928.2	(781,148.3)	1,760.65	(36,619.2)	(11,583.8)
10485	B16 - Water & Wastewater Production Efficiencies							
51	0	Description:						
<p>To date, Toronto Water has undertaken various initiatives that resulted in improved energy use efficiency and reduced electricity rates and consumption. For example, in 2015, Toronto Water improved the KWH/ML ratio at the water treatment plants by 2% over 2012. A decrease in the average electricity rates of 1.2% over 2014 was also achieved, despite the regular inflationary increases. As a result, Toronto Water, has realized savings of \$5.832 million.</p>								
Service Level Impact:								
This recommended reduction will have no impact on the level of service delivered by Toronto Water. It recognizes the savings and efficiencies that Toronto Water has been able to achieve through implementation of various energy conservation oriented initiatives.								
Service: TW-Stormwater Management								
Recommended Service Changes:			10.6	0.0	10.6	0.00	0.0	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended			10.6	0.0	10.6	0.00	0.0	0.0
Service: TW-Wastewater Collection & Treatment								
Recommended Service Changes:			(2,845.1)	0.0	(2,845.1)	0.00	0.0	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended			(2,845.1)	0.0	(2,845.1)	0.00	0.0	0.0
Service: TW-Water Treatment & Supply								
Recommended Service Changes:			(2,997.3)	0.0	(2,997.3)	0.00	0.0	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended			(2,997.3)	0.0	(2,997.3)	0.00	0.0	0.0
Total Recommended Service Changes:			(5,831.8)	0.0	(5,831.8)	0.00	0.0	0.0
Budget Committee Recommended:			0.0	0.0	0.0	0.00	0.0	0.0

2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID		Citizen Focused Services B Program - Toronto Water	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority		Gross Expenditure	Revenue	Net	Approved Positions		
		Total BC Recommended Service Changes:	(5,831.8)	0.0	(5,831.8)	0.00	0.0	0.0

10487	B18 - Reduce Contingencies - Transfer&Haulage of Bio-solids	
51	0	Description:
<p>As a result of increased pelletizing of bio-solids at the Ashbridges Bay Treatment Plant, Toronto Water has realized savings from its contracted services for transfer and haulage of bio-solids. The pelletizing process results in reduced transfer and haulage costs as weight from pellets is much lower than weight from bio-solids (i.e. elimination of water), thus reducing the delivery cost which is based on weight. To recognize the efficiencies that Toronto Water has achieved as a result of actively changing business practices at Ashbridges Bay Wastewater Treatment Plant, savings of \$0.263 million are included in the 2017 Operating Budget. It should be noted however, that these savings are also dependent on contract pricing remaining at the current rates.</p>		
Service Level Impact:		
<p>This recommended reduction will have no impact on the level of service delivered by Toronto Water. The Ashbridges Bay Wastewater Treatment Plant will continue its pelletizing of bio-solids on a go forward basis.</p>		
Service: TW-Wastewater Collection & Treatment		
Recommended Service Changes: (263.0) 0.0 (263.0) 0.00 0.0 0.0		
BC Recommended Change: 0.0 0.0 0.0 0.00 0.0 0.0		
Total BC Recommended (263.0) 0.0 (263.0) 0.00 0.0 0.0		
Total Recommended Service Changes: (263.0) 0.0 (263.0) 0.00 0.0 0.0		
Budget Committee Recommended: 0.0 0.0 0.0 0.00 0.0 0.0		
Total BC Recommended Service Changes: (263.0) 0.0 (263.0) 0.00 0.0 0.0		

10811	B26 - Toronto Water Reorganization	
51	0	Description:

2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID	Citizen Focused Services B	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority	Program - Toronto Water	Gross Expenditure	Revenue	Net	Approved Positions	

After investigating industry best standards for service in a call centre and utility customer care centre environment, Toronto Water determined that a review of the current organizational structure related to customer service delivery needed to be conducted. This need was also confirmed by the challenges experienced in addressing the spike in "No Water Calls" due to frozen pipes during the extreme cold weather of early 2015. The review determined that Toronto Water units currently correspond and interact with customers, work in isolation of each other. As a result of the realignment of these units and centralizing customer related functions, Toronto Water will be able to realize efficiencies and reduce unnecessary overlap in responsibilities, activities and positions between units. Included in the 2017 Operating Budget are savings of \$0.747 million that can be achieved by reducing 8 positions as part of this organizational realignment. Additional information on this change is included in the Confidential Attachment accompanying this document.

As Toronto Water continues a division wide organizational realignment in 2018 and 2019, to create a new structure that enhances the effectiveness, efficiency and value in the delivery of Toronto Water's services, any resulting impacts will be incorporated in its future year operating budget submissions.

Service Level Impact:

Recommend structural changes will enable the delivery of customer services in a way that is effective, efficient and economical.

Service: TW-Stormwater Management

Recommended Service Changes:	(118.2)	0.0	(118.2)	(1.45)	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(118.2)	0.0	(118.2)	(1.45)	0.0	0.0

Service: TW-Wastewater Collection & Treatment

Recommended Service Changes:	(368.6)	0.0	(368.6)	(4.31)	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(368.6)	0.0	(368.6)	(4.31)	0.0	0.0

Service: TW-Water Treatment & Supply

Recommended Service Changes:	(260.0)	0.0	(260.0)	(2.24)	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(260.0)	0.0	(260.0)	(2.24)	0.0	0.0

Total Recommended Service Changes:	(746.7)	0.0	(746.7)	(8.00)	0.0	0.0
Budget Committee Recommended:	0.0	0.0	0.0	0.00	0.0	0.0

2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID	Citizen Focused Services B	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority	Program - Toronto Water	Gross Expenditure	Revenue	Net	Approved Positions	
Total BC Recommended Service Changes:			(746.7)	0.0	(746.7)	(8.00)	0.0

10834	B22 - Reduce use of Backup Tapes
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51	0	Description:
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Traditionally, "Backup-on-Tape" approach has been the de facto industry standard for managing data backup and recovery. Since the computer industry has advanced dramatically in the last few years, and as the cost of the hard disk and the storage size decreases, Toronto Water sees an opportunity to convert to a "live/online" backup system using online storage. That approach also provides an additional benefit in terms of significantly reduced recovery downtime.

By reducing use of backup tapes, since a portion of the back-up will no longer be on tape, but rely on online storage only, Toronto Water will generate savings of \$0.090 million. These changes will also require Toronto Water to determine any relevant compliance issues, and also to review the current divisional retention plan and formally establish one for electronic data.

Service Level Impact:

The recommended reduction will have no impact on the level of service delivered by Toronto Water.

Service: TW-Stormwater Management

Recommended Service Changes:	(1.9)	0.0	(1.9)	0.00	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(1.9)	0.0	(1.9)	0.00	0.0	0.0

Service: TW-Wastewater Collection & Treatment

Recommended Service Changes:	(41.7)	0.0	(41.7)	0.00	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(41.7)	0.0	(41.7)	0.00	0.0	0.0

Service: TW-Water Treatment & Supply

Recommended Service Changes:	(46.4)	0.0	(46.4)	0.00	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(46.4)	0.0	(46.4)	0.00	0.0	0.0

Total Recommended Service Changes:	(90.0)	0.0	(90.0)	0.00	0.0	0.0
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2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID	Citizen Focused Services B	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority	Program - Toronto Water	Gross Expenditure	Revenue	Net	Approved Positions	
		Budget Committee Recommended:	0.0	0.0	0.0	0.00	0.0
		Total BC Recommended Service Changes:	(90.0)	0.0	(90.0)	0.00	0.0

10836	B23 - Eliminate Maintenance Contract for Hansen						
51	0	Description:					
<p>The Hansen Work Management System maintenance contract allows Toronto Water to receive version upgrades from Hansen. However, the development of the "current" version has been frozen and there will be no more updates. The maintenance contract also allows Toronto Water to receive emergency help, in case of the software related issues impacting the system or database. Since over the past 6 years Toronto Water never required this service, it is recommended to terminate the maintenance contract for Hansen Work Management System at its renewal in January, 2017, resulting in a saving of \$0.270 million. After this early termination of the maintenance contract, maintenance and support will be paid through "Time and Material" format – charging by/per incident. Toronto Water is proposing to terminate the Hansen contract at its renewal in January, 2017.</p>							
Service Level Impact:							
The recommended reduction will have no impact on the level of service delivered by Toronto Water.							
Service: TW-Stormwater Management							
Recommended Service Changes:			(5.6)	0.0	(5.6)	0.00	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(5.6)	0.0	(5.6)	0.00	0.0
Service: TW-Wastewater Collection & Treatment							
Recommended Service Changes:			(125.1)	0.0	(125.1)	0.00	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(125.1)	0.0	(125.1)	0.00	0.0
Service: TW-Water Treatment & Supply							
Recommended Service Changes:			(139.3)	0.0	(139.3)	0.00	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(139.3)	0.0	(139.3)	0.00	0.0

2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID	Citizen Focused Services B	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority	Program - Toronto Water	Gross Expenditure	Revenue	Net	Approved Positions	
		Total Recommended Service Changes:	(270.0)	0.0	(270.0)	0.00	0.0
		Budget Committee Recommended:	0.0	0.0	0.0	0.00	0.0
		Total BC Recommended Service Changes:	(270.0)	0.0	(270.0)	0.00	0.0

10837	B24 - Reduce Emergency Repair and Ad-hoc Customization						
51	0	Description:					
<p>Emergency repair and ad-hoc customization of applications are non-routine operating expenditures and arise only when there is a need. It is recommended to eliminate contingencies related to emergency repair and ad-hoc customization of \$0.076 million. Any funds for emergency programming and customization work to rectify errors in applications, customization, or ad-hoc improvement work, will be dealt with in an ad-hoc manner.</p>							
Service Level Impact:							
The recommended reduction will have no impact on the level of service delivered by Toronto Water.							
Service: TW-Stormwater Management							
Recommended Service Changes:			(1.6)	0.0	(1.6)	0.00	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(1.6)	0.0	(1.6)	0.00	0.0
Service: TW-Wastewater Collection & Treatment							
Recommended Service Changes:			(35.2)	0.0	(35.2)	0.00	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(35.2)	0.0	(35.2)	0.00	0.0
Service: TW-Water Treatment & Supply							
Recommended Service Changes:			(39.2)	0.0	(39.2)	0.00	0.0
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(39.2)	0.0	(39.2)	0.00	0.0

2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID		Adjustments						
Category	Priority	Citizen Focused Services B					2018 Plan Net Change	2019 Plan Net Change
		Program - Toronto Water	Gross Expenditure	Revenue	Net	Approved Positions		
		Total Recommended Service Changes:	(76.0)	0.0	(76.0)	0.00	0.0	0.0
		Budget Committee Recommended:	0.0	0.0	0.0	0.00	0.0	0.0
		Total BC Recommended Service Changes:	(76.0)	0.0	(76.0)	0.00	0.0	0.0

10864	B25 - Lower Maintenance Costs as a result of Fleet Reduction
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51	0	Description:
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Toronto Water has reviewed its current fleet list inventory and identified opportunities to eliminate 34 vehicle/equipment units. The corresponding decrease related to maintenance and fuel cost for these vehicles and equipment is estimated at \$0.218 million.

Service Level Impact:

The recommended reduction will have no impact on the service level delivered by Toronto Water.

Service: TW-Stormwater Management

Recommended Service Changes:	(17.9)	0.0	(17.9)	0.00	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(17.9)	0.0	(17.9)	0.00	0.0	0.0

Service: TW-Wastewater Collection & Treatment

Recommended Service Changes:	(70.1)	0.0	(70.1)	0.00	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(70.1)	0.0	(70.1)	0.00	0.0	0.0

Service: TW-Water Treatment & Supply

Recommended Service Changes:	(129.9)	0.0	(129.9)	0.00	0.0	0.0
BC Recommended Change:	0.0	0.0	0.0	0.00	0.0	0.0
Total BC Recommended	(129.9)	0.0	(129.9)	0.00	0.0	0.0

Total Recommended Service Changes:	(217.8)	0.0	(217.8)	0.00	0.0	0.0
Budget Committee Recommended:	0.0	0.0	0.0	0.00	0.0	0.0

2017 Operating Budget - BC Recommended Service Changes Summary by Service (\$000's)

Form ID	Citizen Focused Services B	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority	Program - Toronto Water	Gross Expenditure	Revenue	Net	Approved Positions	
		Total BC Recommended Service Changes:	(217.8)	0.0	(217.8)	0.00	0.0

11567	B29 - Lower Maintenance Costs from Fleet Rationalization						
51	0	Description:	<p>Fleet Services identified savings in other divisions as a result of contracting out of all preventative maintenance and repairs of non-specialized (Class 1-2) vehicles. By contracting out those services, an improvement in vehicle turnaround time of 33% at the end of the 5 year phased in implementation will be achieved, thus freeing up internal Fleet Services capacity to focus on preventative maintenance and repairs for the heavy duty and specialized vehicles, tool and training requirements. This will in turn result in a reduced divisional need for ad-hoc/emergency repairs. Anticipated savings for Toronto Water are estimated at \$0.079 million, with and incremental impact of \$0.158 million in each 2018 and 2019.</p>				
Service Level Impact:			The recommended reduction will have no impact on the level of service delivered by Toronto Water.				
Service: TW-Stormwater Management							
Recommended Service Changes:			(3.9)	0.0	(3.9)	0.00	(7.9)
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(3.9)	0.0	(3.9)	0.00	(7.9)
Service: TW-Wastewater Collection & Treatment							
Recommended Service Changes:			(35.5)	0.0	(35.5)	0.00	(71.0)
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(35.5)	0.0	(35.5)	0.00	(71.0)
Service: TW-Water Treatment & Supply							
Recommended Service Changes:			(39.4)	0.0	(39.4)	0.00	(78.9)
BC Recommended Change:			0.0	0.0	0.0	0.00	0.0
Total BC Recommended			(39.4)	0.0	(39.4)	0.00	(78.9)
Total Recommended Service Changes:			(78.9)	0.0	(78.9)	0.00	(157.7)
Budget Committee Recommended:			0.0	0.0	0.0	0.00	0.0

**2017 Operating Budget - BC Recommended Service Changes
Summary by Service (\$000's)**

Form ID		Citizen Focused Services B Program - Toronto Water	Adjustments				2018 Plan Net Change	2019 Plan Net Change
Category	Priority		Gross Expenditure	Revenue	Net	Approved Positions		
Total BC Recommended Service Changes:			(78.9)	0.0	(78.9)	0.00	(157.7)	(157.7)
Summary:								
Recommended Service Changes:			(7,574.2)	0.0	(7,574.2)	(8.00)	(157.7)	(157.7)
Budget Committee Recommended:			0.0	0.0	0.0	0.00	0.0	0.0
BC Recommended Service Changes:			(7,574.2)	0.0	(7,574.2)	(8.00)	(157.7)	(157.7)
Total BC Recommended Base Budget:			443,205.6	1,231,928.2	(788,722.6)	1,752.65	(36,776.9)	(11,741.5)

Appendix 6

Inflows/Outflows to/from Reserves & Reserve Funds

Program Specific Reserve / Reserve Funds

Reserve / Reserve Fund Name (In \$000s)	Reserve / Reserve Fund Number	Projected Balance as of Dec. 31, 2016 *	Withdrawals (-) / Contributions (+)		
			2017	2018	2019
		\$	\$	\$	\$
Projected Beginning Balance		659,623.3	659,623.3	876,941.9	730,720.5
Water & Waste Water Capital Reserves	XR6003 & XR6004				
<i>Proposed Withdrawals (-)</i>			(571,404.0)	(934,943.9)	(1,037,743.8)
<i>Contributions (+)</i>			788,722.6	788,722.6	825,499.5
Total Reserve / Reserve Fund Draws / Contributions		659,623.3	876,941.9	730,720.5	518,476.2
Other Program / Agency Net Withdrawals & Contributions					
Balance at Year-End		659,623.3	876,941.9	730,720.5	518,476.2

* Based on the Q2 2016 Reserve Fund Variance Report

Reserve / Reserve Fund Name (In \$000s)	Reserve / Reserve Fund Number	Projected Balance as of Dec. 31, 2016 *	Withdrawals (-) / Contributions (+)		
			2017	2018	2019
		\$	\$	\$	\$
Projected Beginning Balance		17,104.0	17,104.0	18,757.0	21,164.0
Development Charges - Stormwater	XR2404 & XR2113				
<i>Proposed Withdrawals (-)</i>			(3,491.0)	(2,822.0)	(4,117.0)
<i>Contributions (+)</i>			5,144.0	5,229.0	5,300.0
Total Reserve / Reserve Fund Draws / Contributions		17,104.0	18,757.0	21,164.0	22,347.0
Other Program / Agency Net Withdrawals & Contributions					
Balance at Year-End		17,104.0	18,757.0	21,164.0	22,347.0

* Based on the Q2 2016 Reserve Fund Variance Report

Corporate Reserve / Reserve Funds

Reserve / Reserve Fund Name (In \$000s)	Reserve / Reserve Fund Number	Projected Balance as of Dec. 31, 2016 *	Withdrawals (-) / Contributions (+)		
			2017	2018	2019
		\$	\$	\$	\$
Projected Beginning Balance			26,283.6	36,500.5	46,559.7
Vehicle Replacement Reserve	XQ1012	6,998.8	5,875.8	5,718.1	5,560.4
Insurance Reserve Fund	XR1010	19,284.8	4,341.1	4,341.1	4,341.1
Total Reserve / Reserve Fund Draws / Contributions		26,283.6	36,500.5	46,559.7	56,461.2
Other Program / Agency Net Withdrawals & Contributions					
Balance at Year-End		26,283.6	36,500.5	46,559.7	56,461.2

* Based on the Q2 2016 Reserve Fund Variance Report

Appendix 7a

User Fees Adjusted for Inflation and Other – Water

Rate Description	Service	Fee Category	Fee Basis	2016	2017		
				Approved Rate	Inflationary Adjusted Rate	Other Adjustment	Budget Rate
Installing 19 mm New Residential Water Service and Meter	Water Service	Full Cost Recovery	Flat fee per connection	\$4,400.00	\$ 4,505.00		\$4,505.00
Installing 25 mm New Residential Water Service and Meter	Water Service	Full Cost Recovery	Flat fee per connection	\$5,100.00	\$ 5,220.00		\$5,220.00
Disconnection Fee for any residential water service less than or equal to 25 mm	Water Service	Full Cost Recovery	Flat fee per disconnection	\$1,300.00	\$ 1,330.00		\$1,330.00
Metered water provided to construction sites	Water Service	City Policy	Consumption per cubic metre	Block 1 Water Rate	Block 1 Water Rate		Block 1 Water Rate
Fire hydrant Permit	Water Service	Full Cost Recovery	Flat Fee	\$164.77	\$ 168.77		\$168.77
Water meter accuracy test ; Meter less than or equal to 50mm - No Chamber - applied if meter does not over-register	Water Service	Full Cost Recovery	Flat Fee	\$164.77	\$ 168.77		\$168.77
Water turn off fee for demolition; (disconnection of old water service not included)	Water Service	Full Cost Recovery	Flat Fee	\$82.33	\$ 84.33		\$84.33
Cost of water consumption from last water meter reading to the date of disconnection of service	Water Service	Full Cost Recovery	Per cubic metre	Block 1 Water Rate	Block 1 Water Rate		Block 1 Water Rate
Water Turn-off or Turn-on	Water Service	Full Cost Recovery	Each Turn-off or Turn-on	\$82.33	\$ 84.33		\$84.33
Single Service call Turn-off and Turn-on within 30 min	Water Service	Full Cost Recovery	Turn-off and Turn-on Service within 30 min	\$82.33	\$ 84.33		\$84.33
Conduct fire hydrant flow test	Water Service	Full Cost Recovery	Per Flow Test	\$274.66	\$ 281.33		\$281.33
Unmetered water from each unmetered hydrant- less than or equal to 50 cubic metre	Water Service	City Policy	Per 50 cubic metre	50 cubic metre @ Block 1 Water Rate	50 cubic metre @ Block 1 Water Rate		50 cubic metre @ Block 1 Water Rate
Metered water received at hydrant	Water Service	Full Cost Recovery	Per cubic meter of water	Block 1 Water Rate	Block 1 Water Rate		Block 1 Water Rate
Unregistered water each day order not complied	Water Service	Full Cost Recovery	Flat Rate	\$54.89	\$ 56.22		\$56.22
Annual Seasonal Meter Activation Fee : includes replacement, removal of water meter; 1 turn on, 1 turn off	Water Service	Full Cost Recovery	Flat Fee	\$211.27	\$ 216.40		\$216.40
Unmetered water - general or use of non-City supplied meter	Water Service	Full Cost Recovery	Estimated consumption per cubic meter	Block 1 Water Rate	Block 1 Water Rate		Block 1 Water Rate
Reuse of residential water service 19 mm to 25 mm	Water Service	Full Cost Recovery	Per Service to be reused	\$274.40	\$ 281.06		\$281.06
Administrative fee to reflect a change in ownership on an existing utility account	Water Service	Full Cost Recovery	Per ownership change	\$37.12	\$ 37.67		\$37.67
Water Special/Final Reading	Water Service	Full Cost Recovery	Per Customer Request	\$15.91	\$ 16.14		\$16.14

Appendix 7a

User Fees Adjusted for Inflation and Other –Water (Continued)

Rate Description	Service	Fee Category	Fee Basis	2016	2017		
				Approved Rate	Inflationary Adjusted Rate	Other Adjustment	Budget Rate
Water Consumption Statements	Water Service	Full Cost Recovery	For One Year	\$42.43	\$ 43.06		\$43.06
Water Consumption Statements	Water Service	Full Cost Recovery	For each subsequent year	\$26.52	\$ 26.91		\$26.91
Water Collection Field Visit	Water Service	Full Cost Recovery	Per Field Visit	\$26.52	\$ 26.91		\$26.91
Administration of MOE Municipal drinking Water Licensing Program	Water Service	Full Cost Recovery	per application	\$2,484.26	\$ 2,544.62		\$2,544.62
Fee for lost or damaged automated meter reading transmitter	Revenues - Operational Support	Full Cost Recovery	per each lost or damaged meter reading transmitter	\$76.50	\$ 95.00		\$95.00
Manual water meter reading fee for consumers with water meters refusing installation of a new water meter and associated meter reading equipment	Revenues - Operational Support	Full Cost Recovery	per visit	\$84.20	\$ 86.24		\$86.24
Flat rate legacy fee, in addition to any existing water and wastewater flat rates charged for residential flat rate consumers who refuse the installation of an automatic water meter and associated meter reading equipment	Revenues - Operational Support	Full Cost Recovery	per account	\$1,123.02	\$ 1,150.30		\$1,123.02
Processing annual water supply backflow prevention device testing reports	Water Service	Full Cost Recovery	per report	\$51.20	\$ 52.44		\$52.44

Appendix 7a

User Fees Adjusted for Inflation and Other -Wastewater

Rate Description	Service	Fee Category	Fee Basis	2016	2017		
				Approved Rate	Inflationary Adjusted Rate	Other Adjustment	Budget Rate
Sewer Surcharge on private water	Wastewater Service	Full Cost Recovery	Per Cubic Meter	57% of Block 1 Water Rate	57% of Block 1 Water Rate		57% of Block 1 Water Rate
To install new residential sanitary sewer service connection in road allowance	Wastewater Service	Full Cost Recovery	Per Installation	\$11,000.00	\$ 11,265.00		\$11,265.00
To install new residential storm sewer service connection in road allowance	Wastewater Service	Full Cost Recovery	Per Installation	\$11,000.00	\$ 11,265.00		\$11,265.00
To disconnect residential sanitary sewer service connection in road allowance	Wastewater Service	Full Cost Recovery	Per Disconnection	\$1,360.00	\$ 1,390.00		\$1,390.00
Inspection fee for the reuse of residential City sewer connection up to 150 mm in diameter	Wastewater Service	Full Cost Recovery	Per service to be reused	\$550.00	\$ 563.37		\$563.37
Technical Review by Toronto Water staff - Application to Toronto Water for exemption to permit the construction of a driveway sloped downwards towards a residential building.	Wastewater Service	Full Cost Recovery	Per application	\$1,648.50	\$ 1,688.55		\$1,688.55
Technical Review by Toronto Water staff - Application to Toronto Water for new connection or change or alteration to the existing storm connection, sanitary or water supply connection	Wastewater Service	Full Cost Recovery	Per application	\$329.5 minimum fee; additional \$81.3/hour for each hour after 4 hours to a maximum of \$1,648.5	\$337.5 minimum fee; additional \$83.27/hour for each hour after 4 hours to a maximum of \$1,688.55		\$337.5 minimum fee; additional \$83.27/hour for each hour after 4 hours to a maximum of \$1,688.55
Technical Review by Toronto Water staff - Application to Toronto Water for request to encroach within a City permanent or temporary easement (related to City water and sewer infrastructure)	Wastewater Service	Full Cost Recovery	Per application	\$329.5 minimum fee; additional \$81.3/hour for each hour after 4 hours to a maximum of \$1,648.5	\$337.5 minimum fee; additional \$83.27/hour for each hour after 4 hours to a maximum of \$1,688.55 (plus HST)		\$337.5 minimum fee; additional \$83.27/hour for each hour after 4 hours to a maximum of \$1,688.55 (plus HST)
Technical Review by Toronto Water staff - Application to Toronto Water for request to release from title a City easement (related to City water and sewer infrastructure)	Wastewater Service	Full Cost Recovery	Per application	\$329.5 minimum fee; additional \$81.3/hour for each hour after 4 hours to a maximum of \$1,648.5	\$337.5 minimum fee; additional \$83.27/hour for each hour after 4 hours to a maximum of \$1,688.55 (plus HST)		\$337.5 minimum fee; additional \$83.27/hour for each hour after 4 hours to a maximum of \$1,688.55 (plus HST)
Initial fee for establishment of new industrial waste surcharge agreement	Wastewater Service	Full Cost Recovery	Per agreement	\$845.30	\$ 865.84		\$865.84
Record search for Sewers by-law compliance violation	Wastewater Service	Full Cost Recovery	per address	\$100.00	\$ 102.43		\$102.43