BU25.1

2017 Toronto Water Budget

2017 Recommended Operating Budget
2017–2026 Recommended Capital Plan
2017 Recommended Water Rate

Lou Di Gironimo, General Manager, Toronto Water
Budget Committee, November 4, 2016

Toronto Water at a Glance

- Serve 3.6 million residents and businesses in Toronto, and portions of York and Peel
- Over $28.3 billion in infrastructure
- Operates facilities 24 hours per day, 365 days per year
- Program is rate-supported – no reliance on the property tax base to support Toronto Water operating and capital budgets

Inventory of Assets

Replacement Value $28.3 Billion

WASTEWATER/STORMWATER - $19.2 Billion

- 4 wastewater treatment plants
- 7 storage and detention tanks
- 3,730 km of sanitary, 1,411km of combined and 401 km of trunk sewer
- 4,981 km of storm sewers
- 154,856 maintenance holes
- 507,548 sewer service connections
- 87 wastewater pumping stations
- 371 km of watercourses, 84 stormwater management ponds
- 1,864 outfalls & 173,370 catchbasins

WATER - $9.1 Billion

- 4 water filtration plants
- 11 reservoirs and 4 elevated storage tanks
- 5,551 km of distribution watermains and 550 km of trunk watermains
- 64,913 valves and 41,505 hydrants
- 511,452 water service connections, plus York Region (population served 600,000)
- 18 water pumping stations

Strategic Actions 2013-2018

City Building

1. Implement Smart Urban Growth Strategies
2. Invest in Culture
3. Develop a Long-term Transportation Plan and Policies

Economic Vitality

4. Increase Employment Opportunities
5. Accelerate Economic Growth

Environmental Sustainability

6. Support Environmental Sustainability
7. Develop a Long-term Solid Waste Management Strategy

Social Development

8. Support Affordable Housing
9. Strengthen Neighbourhoods
10. Enhance the City's Quality of Life
11. Advance Toronto's Motto 'Diversity our Strength'
12. Improve Emergency Response and Prevention

Good Governance

13. Open Government by Design
14. Engage the Public
15. Strengthen Public Service Governance
16. Strengthen Intergovernmental Relationships
17. Enhance the City's Capacity to Serve Toronto's Diversity
18. Develop and Implement a Workforce Plan
19. Improve Customer Service
20. Enhance Performance Measurement
21. Improve Organizational Excellence
22. Implement Shared Services

Fiscal Sustainability

23. Update the Long-term Fiscal Plan
24. Improve Service and Financial Planning
25. Ensure State of Good Repair for Infrastructure
26. Finance the City's Growth

Toronto Water Strategic Plan
2010-2020

Mission Statement

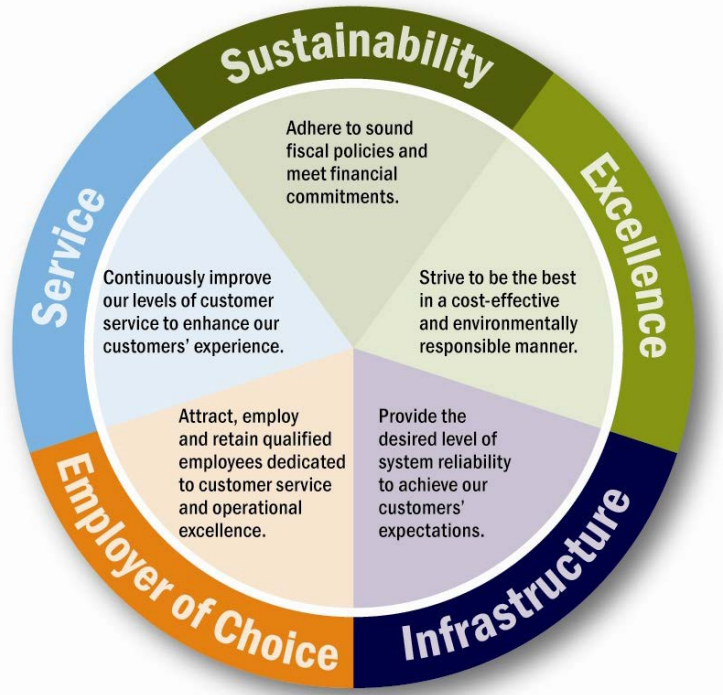
To provide quality water services through supplying drinking water and the treatment of wastewater and stormwater to residents, businesses and visitors in order to protect public health, safety and property in an environmentally and a fiscally responsible manner.

Vision Statement

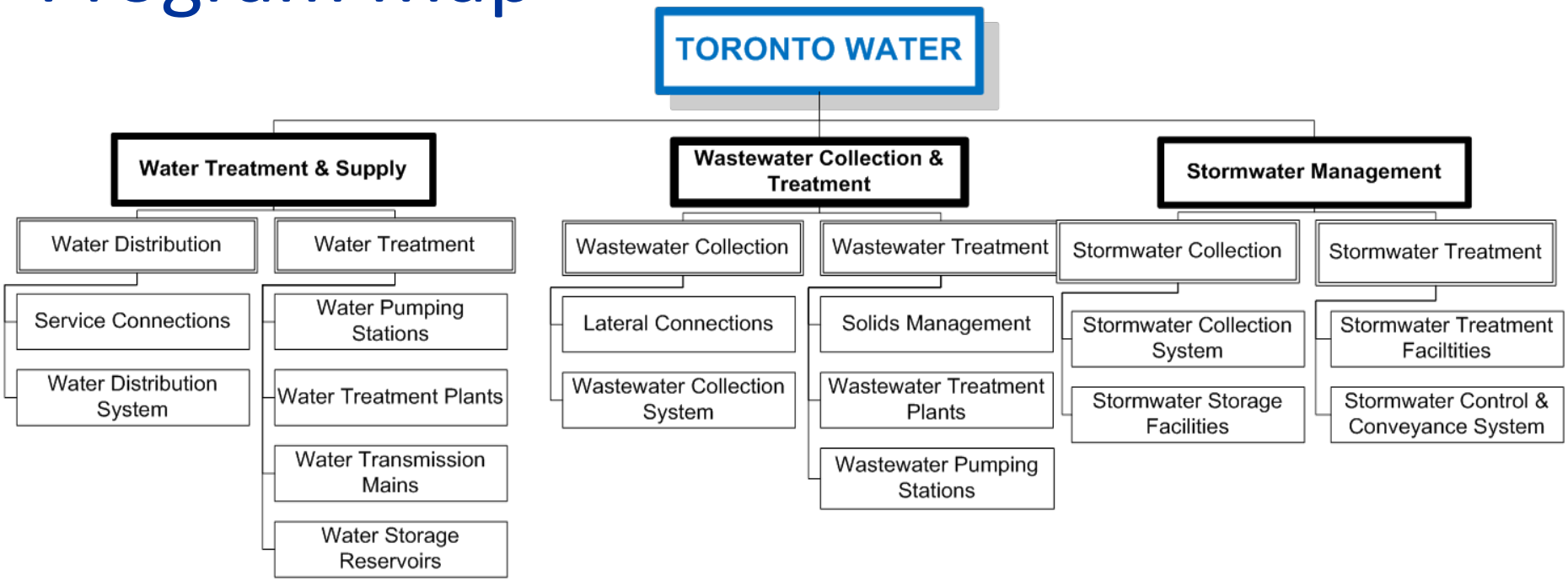
Toronto Water will be a leader in achieving excellence and efficiency in all aspects of water service delivery.

Guiding Principles

I. Continuous Service Delivery Improvement
II. Financial Vitality, Viability and Sustainability
III. Operational Excellence
IV. Infrastructure Management
V. Employer of Choice



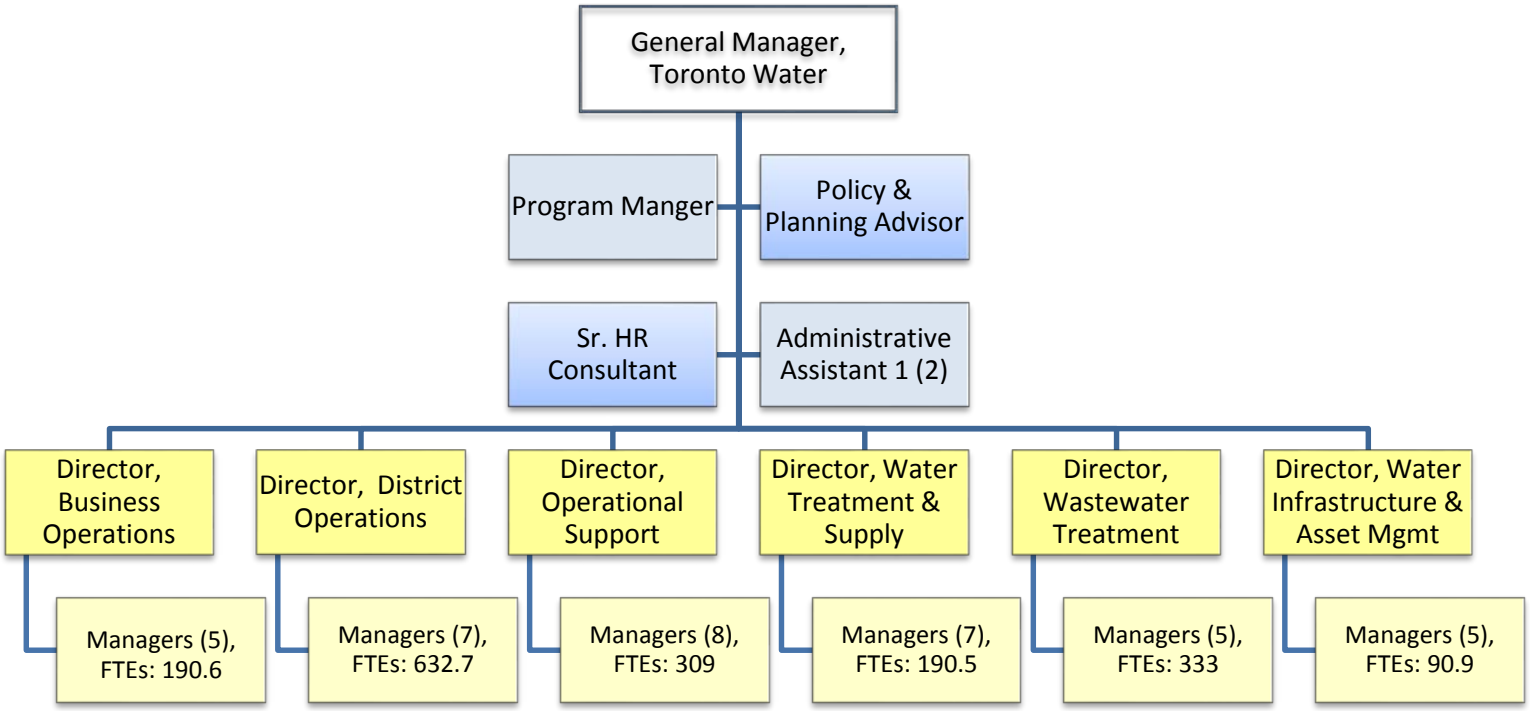
Program Map



Toronto Water – Key Services:

- **Water Treatment & Supply**: Treat and distribute drinking water in a safe, responsible manner in accordance with all legislated requirements.
- **Wastewater Collection & Treatment**: Collect and treat wastewater in a safe, responsible manner in accordance with all legislated requirements.
- **Stormwater Management**: Collect and treat stormwater in a safe, responsible manner in accordance with all legislated requirements.

Toronto Water – Organizational Structure



2016 Full and Part Time Staff

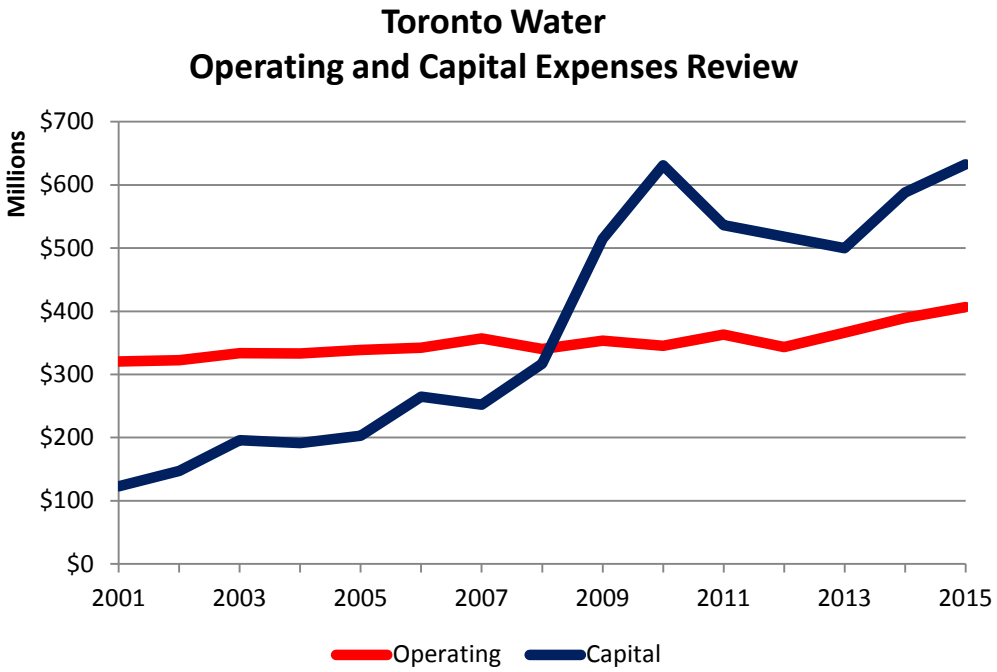
Category	Senior Management	Management	Exempt Professional & Clerical	Union	Total
Permanent	1.0	174.0	172.0	1,309.0	1,656.0
Temporary	0.0	5.0	2.0	95.7	102.7
Total	1.0	179.0	174.0	1,404.7	1,758.7


Toronto Water

Program Challenges

Long-term Financial Stability	Existing 10-year financial plan relies primarily on successive water rate increases to fund continued infrastructure investment and conform with pay-as-you-go financing strategy.
Declining Water Consumption	Downward trend over the last decade, despite population growth. Anticipate base water consumption will flatline. Forecast is for a moderate annual decrease in consumption (-0.5%)
Aging Infrastructure	Significant state of good repair backlog for underground assets; water/wastewater treatment plants and facilities. Currently updating condition assessments on major assets.
Basement Flooding	Significant investment required to manage basement flooding issues across the city.
Strict Regulatory Control & Oversight	Water and wastewater industry continues to experience increased legislative and regulatory reform impacting both operating and capital budgets.
Managing Reserve Balances	Ensuring positive reserve balances during major capital spending years. Simultaneous large scale projects are planned for the next five years.
Funding Options for Paying for Toronto Water's Stormwater Management Capital Program	1) City Council authorize the General Manager, Toronto Water, and Deputy City Manager and Chief Financial Officer to develop and formulate a stormwater management funding model premised on the establishment of a dedicated stormwater charge; thereby, removing stormwater managements costs from the water rate; 2) City Council direct the General Manager, Toronto Water and the Deputy City Manager and Chief Financial Officer to report back to Executive Committee in the spring of 2017 on a stormwater charge implementation plan which shall include, etc. (see BU13.4 for details).

Financial Performance (Actual Costs)



Stable Operating Costs

- Operating costs have been growing relatively slowly over the past 15 years except for the past two years.
- Operating expenses increased due to extremely cold winters

Capital Spending

- Increased revenue generated by rate increases have been reinvested in infrastructure
- Capital investment has tripled over the last ten years


Toronto Water

Operating Budget Challenges

Maintaining stable operating costs	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.

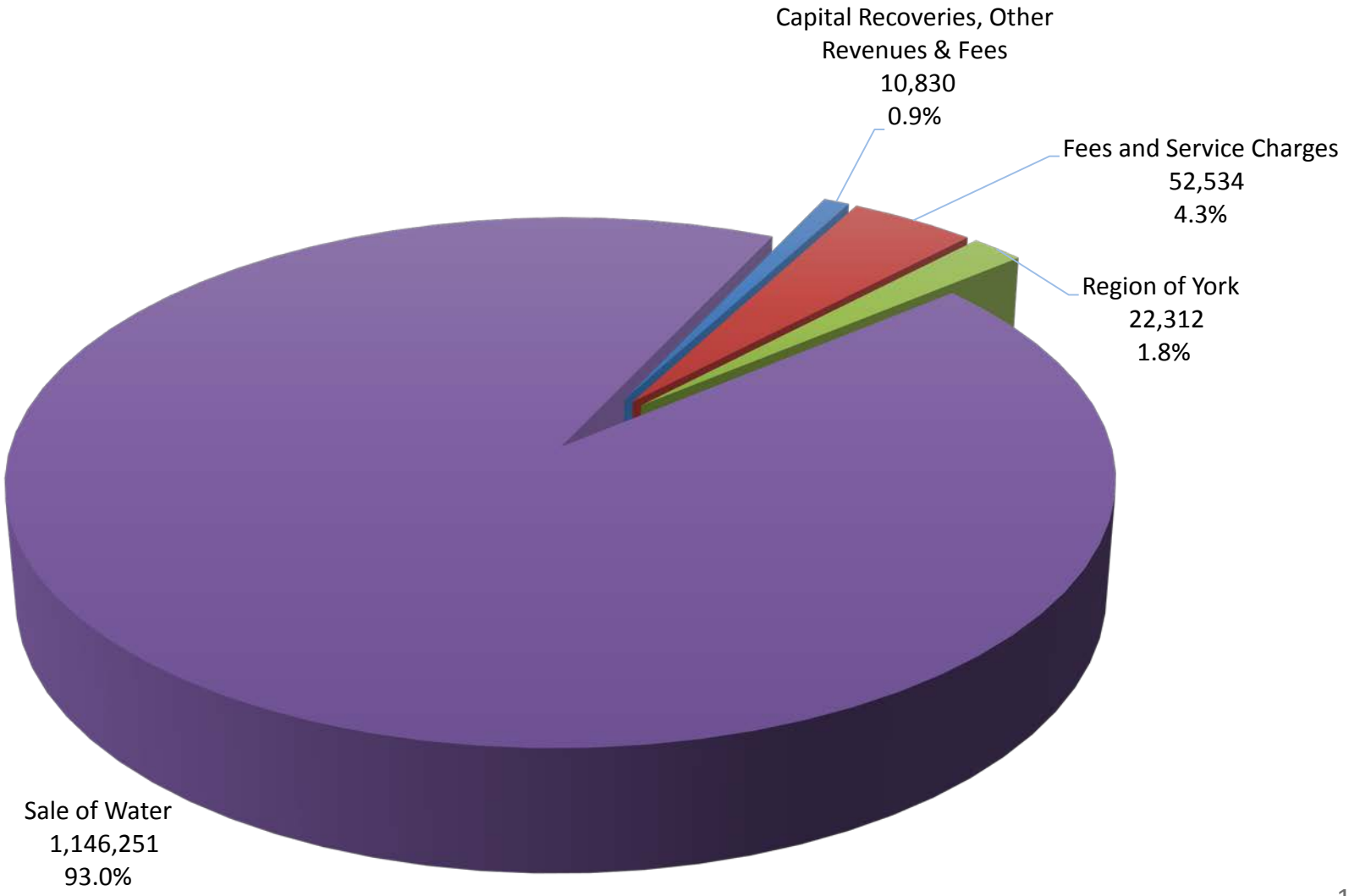
2016 Projected Year End Variance

Budget Variance and Projection to year end ($000's):

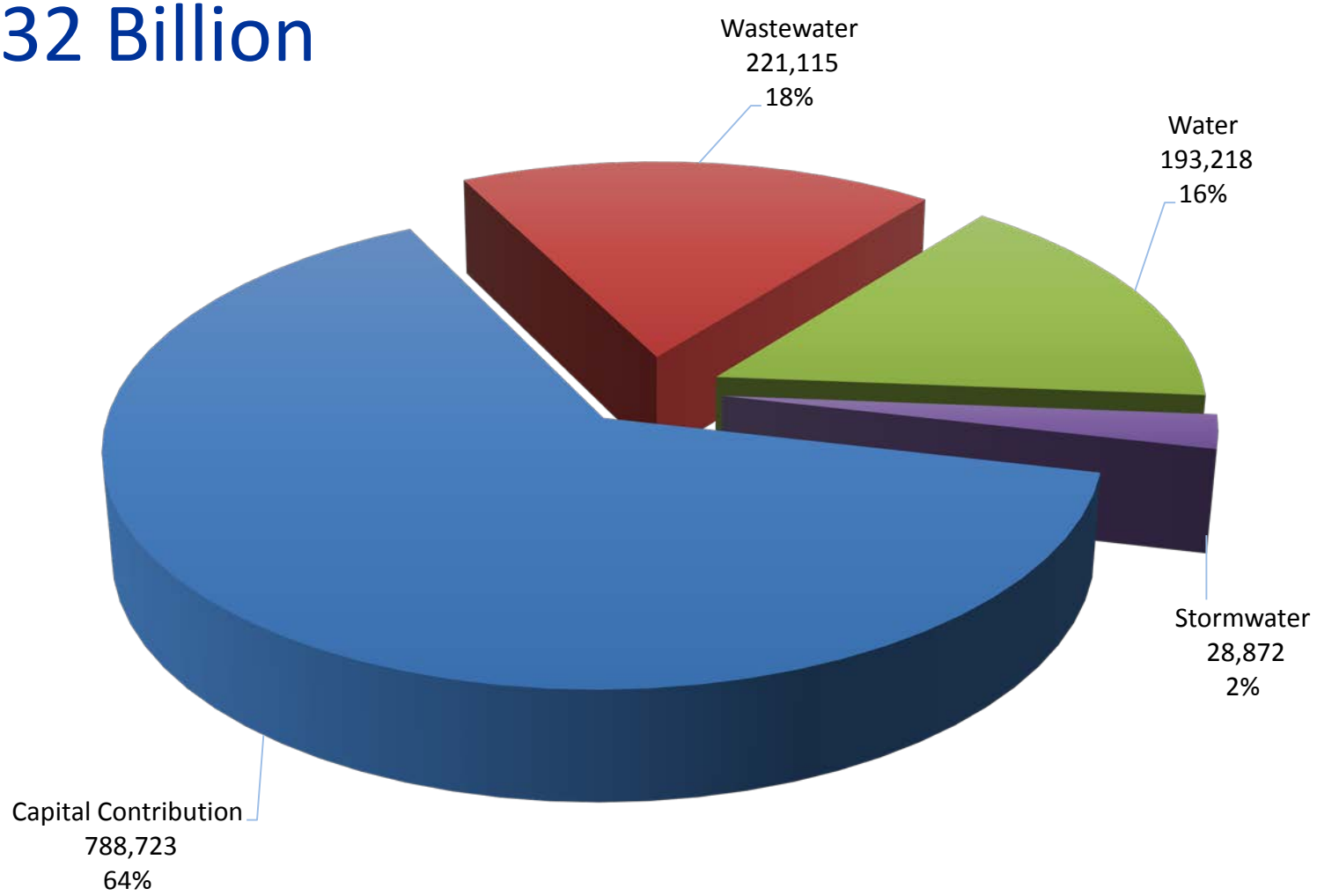
(In $000's)	2014 Actuals $	2015 Actuals $	2016 Approved Budget $	2016 Projected Actuals $	2016 Approved Budget vs Projected Actuals $	%
Gross Expenditure	397,604	414,701	441,418	426,020	15,398	3.5%
Revenues	1,017,417	1,094,106	1,158,713	1,176,222	17,509	1.5%
Capital Contribution	619,813	679,405	717,295	750,202	32,907	4.6%
Approved Positions	1,751.7	1,624.7	1,758.7	1,610.7	148.1	8.4%

- Toronto Water is projecting a $32.9 million surplus
- Lower expenditures relating mainly to savings in utilities and salaries and benefits
- Higher projected revenues due to the sale of water which may be higher than originally budgeted

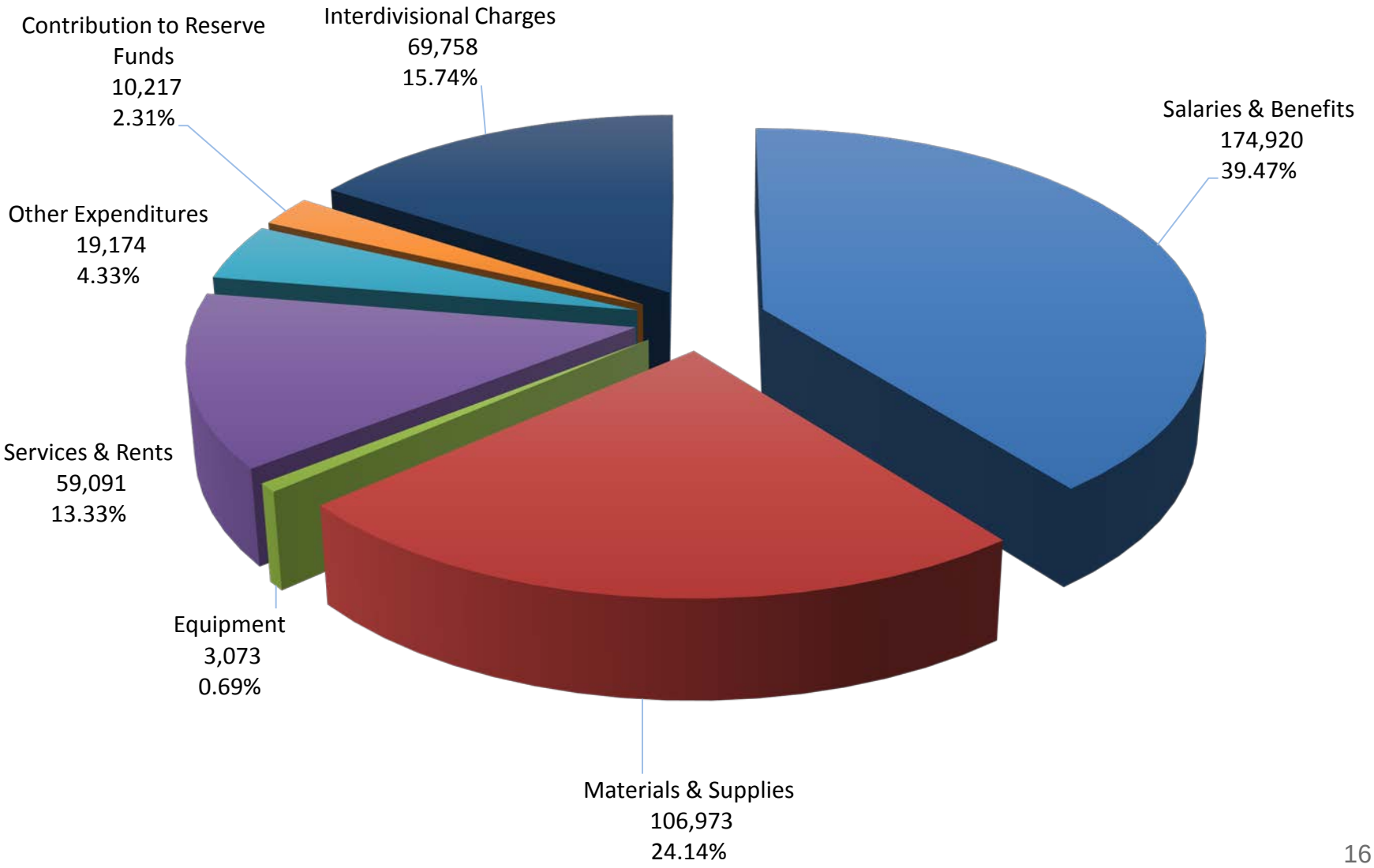
2017 Operating Budget Funding Sources ($millions) $1.232 Billion



2017 Operating Budget by Service ($millions)
$1.232 Billion



2017 Operating Budget by Expenditure ($millions)
$443.206 Million (Gross)



2017 Recommended Base Budget

BASE BUDGET COMPARISON ($000s)				
(in $000's)	2016 Approved Budget	2017 Budget Recommended	$ Increase (Decrease)	% Incr. (Decr.)
Gross Expenditures	441,418	443,206	1,788	0.4%
Revenues Excluding Sale of Water	55,268	63,365	8,096	14.6%
Net Expenditures	386,149	379,841	(6,308.6)	-1.6%
Sale of Water	1,103,444	1,168,563	65,119	5.9%
Capital Contribution	717,295	788,723	71,428	10.0%
No. of Positions	1,758.7	1,752.7	(6.0)	

- Toronto Water was able to offset gross expenditure pressures of $16.6 million with $14.8 million in expenditure reductions and $8.1 million in revenue change.

2017 Net Operating Budget Changes ($millions)

INCREASES		COST REDUCTIONS/SAVINGS	
Prior Year Council Approvals & Annualization	0.650	Prior Year Council Approvals & Annualization	0.186
Operating Impact of Capital	0.686	Operating Impact of Capital	0.800
Inter-divisional Charges	0.980	Inter-divisional Charges	3.589
Contributions & Transfers - PILT	0.301	Contributions & Transfers - PILT	1.357
Contributions & Transfers - TRCA	0.118	IT Efficiencies	0.471
Wastewater Meter Replacements - Billing Accuracy (3 Yr Phase - In)	0.533	Energy Efficiencies	5.832
District Operations - Contracted Services - Rate	1.348	Operating Costs - Wastewater & Water Treatment	0.672
District Operations - Contracted Services - Volume	1.152	Operating Costs - Discretionary & Material Reductions	1.119
Operating Cost Wastewater	0.069	Position Repurposing/Reductions	0.694
		Line-by-line review	0.050
		Savings from Fleet Service Review	0.079
ECONOMIC FACTORS			
Economic Factors - Energy and Utilities	5.359	**REVENUE CHANGES**	
Economic Factors - Materials & Supply, Equipment and Contracted Services	1.754	User Fees - Inflation & Volume	6.991
Cost of Living Allowances, Step, Merit & Progression Pay	3.687	Other Revenue & Recoveries	1.106
TOTAL PRESSURES	**16.637**	**SAVINGS & REVENUE CHANGES**	**22.946**

Vacancies

2015 Positions					2016 YTD (October) Positions				
Budget	Actual	Vacancies	%		Budget	Actual	Vacancies	%	
1,761.7	1,624.7	137.0	7.8%		1,758.7	1,610.7	148.0	8.5%	

*2015 October vacancy was 10%

Explanation for vacancies:

- Retirements / Aging Workforce (39% of staff will be eligible for unreduced retirement within five years)
- Difficulty finding fully qualified candidates for critical positions
- Frequent internal employee movement
- Historically, significant time to fill permanent vacancies

Strategies to fill vacancies:

- Development of a Five-Year Workforce Plan up to December 2018 to improve the hiring process.
- Hiring strategy will focus on effective/timely recruitment and will include:
  - Streamlining of assessment framework
  - Providing on-the-job training
  - Creating an assessment database


Toronto Water
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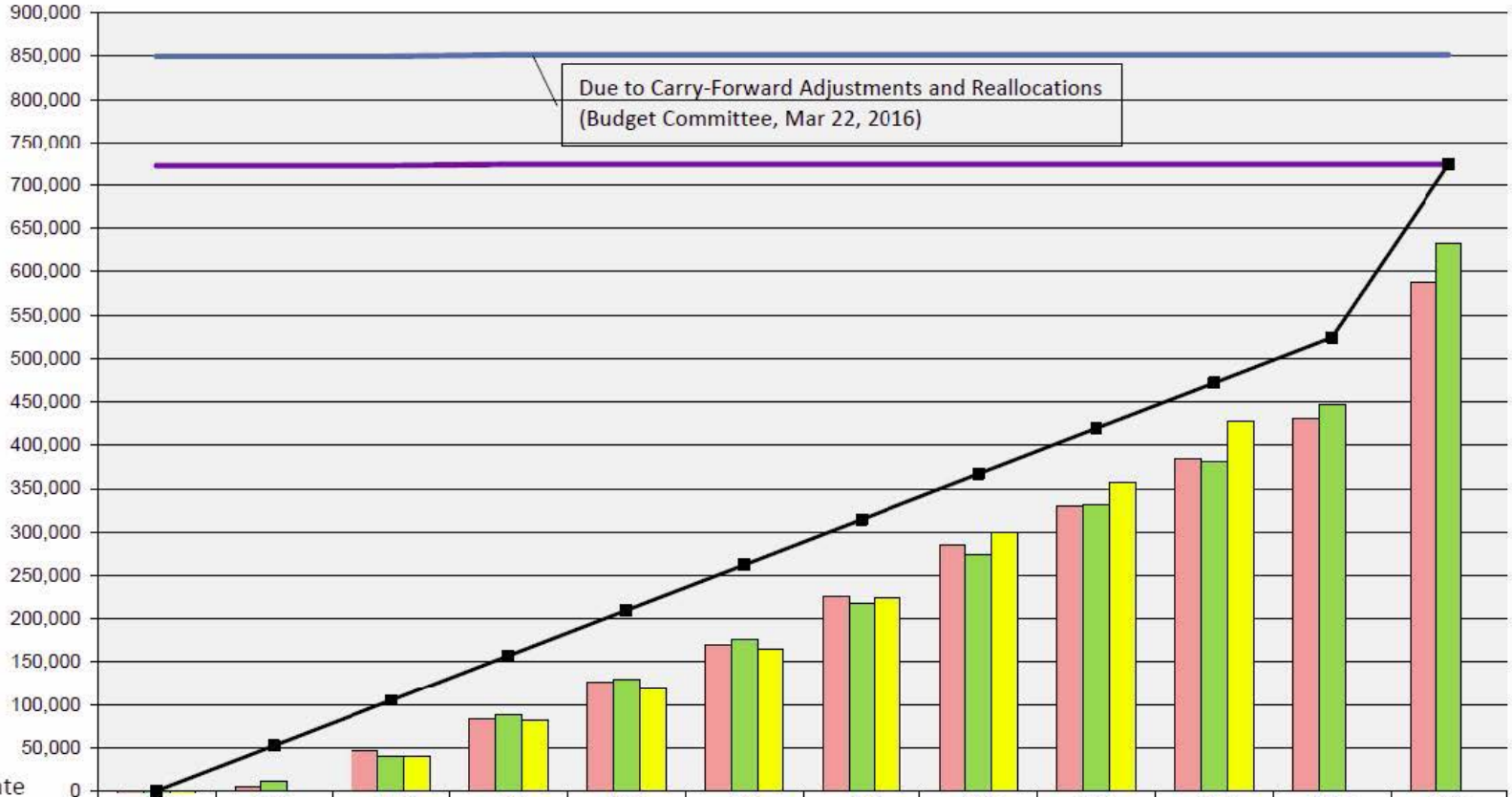
Capital Budget Challenges

Long-term Financial Stability	Existing 10-year financial plan relies primarily on successive water rate increases to fund continued infrastructure investment and conforms with pay-as-you-go financing strategy.
Planning for Growth	The City of Toronto is experiencing significant growth with many landowners submitting development applications to amend the zoning by-law to increase the permitted density. A strategy is required to ensure that water and wastewater services are available for new developments.
Aging Infrastructure	Significant state of good repair backlog for underground assets; water/wastewater treatment plants and facilities. Currently updating condition assessments on major assets. Escalating unit rates for pipe replacement.
Basement Flooding	Significant investment required to manage basement flooding issues across the city.
Managing Reserve Balances	Ensuring positive reserve balances during major capital spending years. Simultaneous large scale projects are planned for the next five years.

2016 Key Accomplishments

Program Area	Key Accomplishments
Water Treatment & Supply ($293 Million)	▪ Approximately 35 km of watermain replacement ($71M) and 63 km of structural watermain lining ($49M) ▪ Water service replacement – ($32M) ▪ Water treatment plant upgrades ($39M) ▪ Transmission watermain replacement ($14M) ▪ Reservoirs and pumping stations ($18M) ▪ Water Meter Program ($7M); Engineering Services ($27M); New Connections ($36M)
Wastewater Treatment & Collection ($281 Million)	▪ 7 km of sewer replacement ($33M) and 130 km of sewer rehabilitation ($52M); trunk sewer rehabilitation ($21M) ▪ Ashbridges Bay Treatment Plant Upgrades including P building, biofilters and engineering for the IPS and Outfall projects ($61M) ▪ Highland Creek Treatment Plant Upgrades including biosolids and odour control ($29M) ▪ Humber Treatment Plant Upgrades including gas compressor, odour control and secondary treatment ($40M) ▪ Pumping station rehabilitation ($5M) ▪ Engineering Services ($27M); Business & Technology ($10M); Yards & Facilities ($3M)
Stormwater Management ($105 Million)	▪ Basement Flooding Protection Program - ongoing ($45M) ▪ Wet Weather Flow Master Plan - ongoing ($60M)

Capital Spending – Year-Over-Year Comparison



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014 Actual	(13,149)	5,042	47,223	83,259	126,410	170,440	225,208	285,770	329,461	383,815	430,379	587,826
2015 Actual	(13,446)	10,455	40,346	88,816	130,307	177,001	218,005	274,372	331,119	381,424	446,250	632,577
2016 Actual	(38,487)	(117)	40,199	82,385	119,178	165,712	223,953	299,936	357,519	427,410		
2016 Budget	849,881	849,881	849,881	851,652	851,652	851,652	851,652	851,652	851,652	851,652	851,652	851,652
2016 Target (85%)	722,399	722,399	722,399	723,904	723,904	723,904	723,904	723,904	723,904	723,904	723,904	723,904
2016 Cumulative Target	0	52,441	104,882	157,322	209,763	262,204	314,645	367,086	419,527	471,967	524,408	723,904
Multi-Year Commitments	895,754	881,866	855,841	849,889	919,167	999,904	996,470	1,006,869	999,897	983,050		

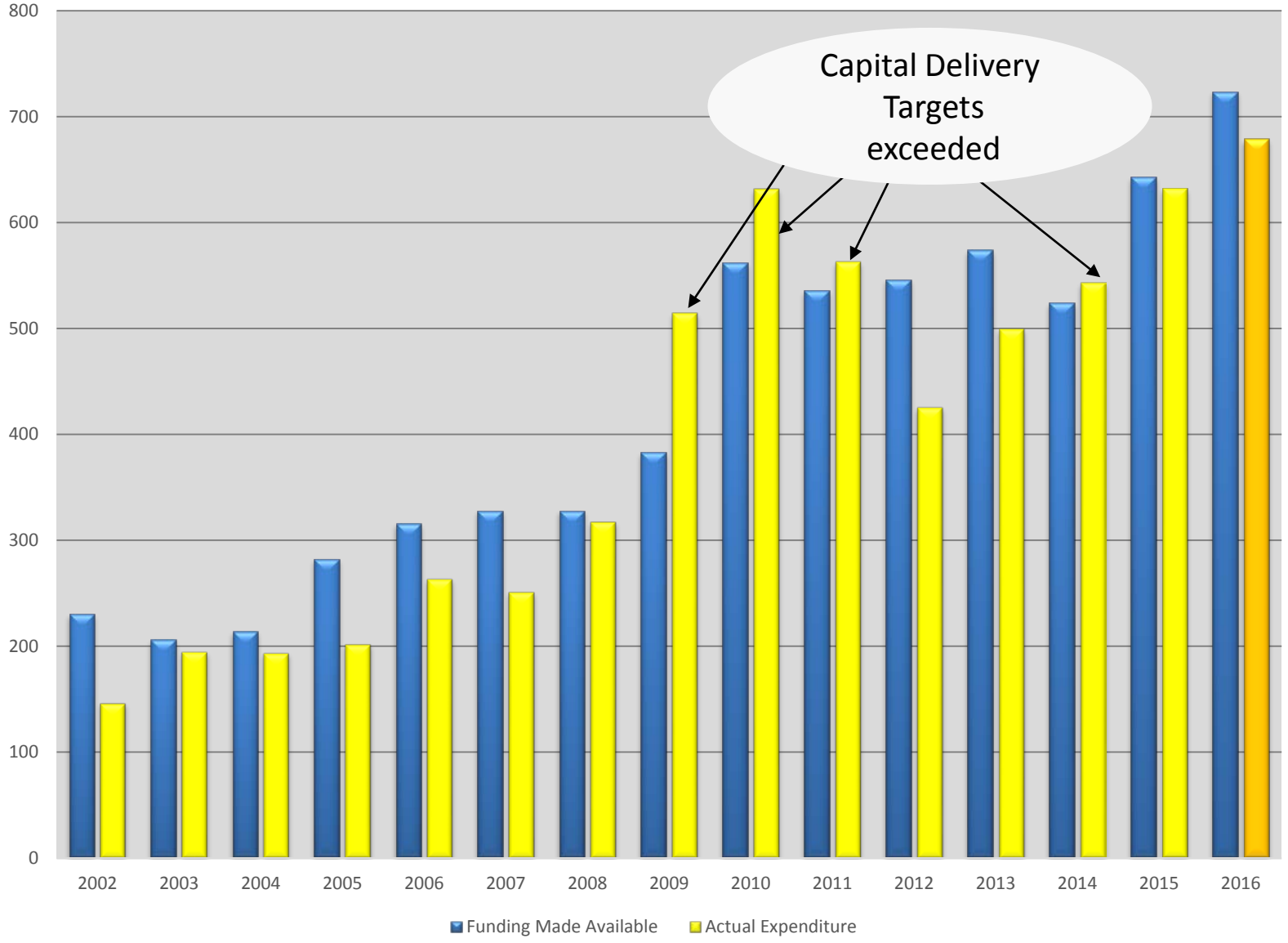
2016 Capital Spending - Budget to Actual Comparison

2016 Approved	Actuals as of September 30, 2016		Projected Actuals at Year End		Unspent Balance	
$	$	% Spent	$	% Spent	$	% Unspent
851,652,065	341,548,298	40.1%	679,054,000	79.7%	172,598,065	20.3%

Key Points:

- Target expenditure is 85%
- Spending to date is lagging due to delayed contract awards and some performance issues with contractors and consultants
- $1 Billion of commitments in active contracts
- Up to 10% of the program ($85M) is for contingency
- Market rates for construction work in the roadway are trending up approximately 200-300% for linear replacement projects

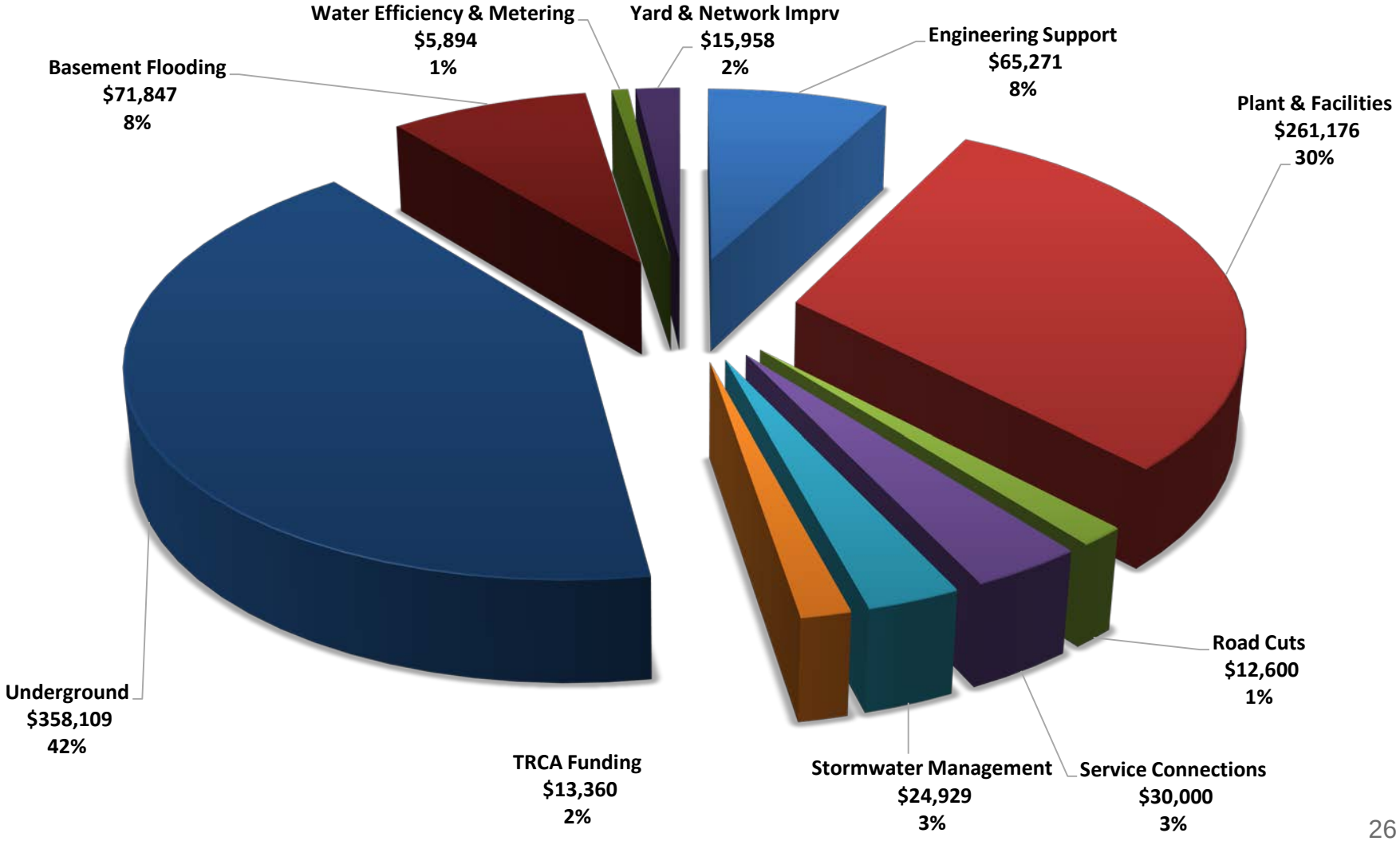
2002-2016 Capital Budget Expenditure Rate ($millions)



2016 Capital Completion rate is projected to be 79.7% of Gross Amount

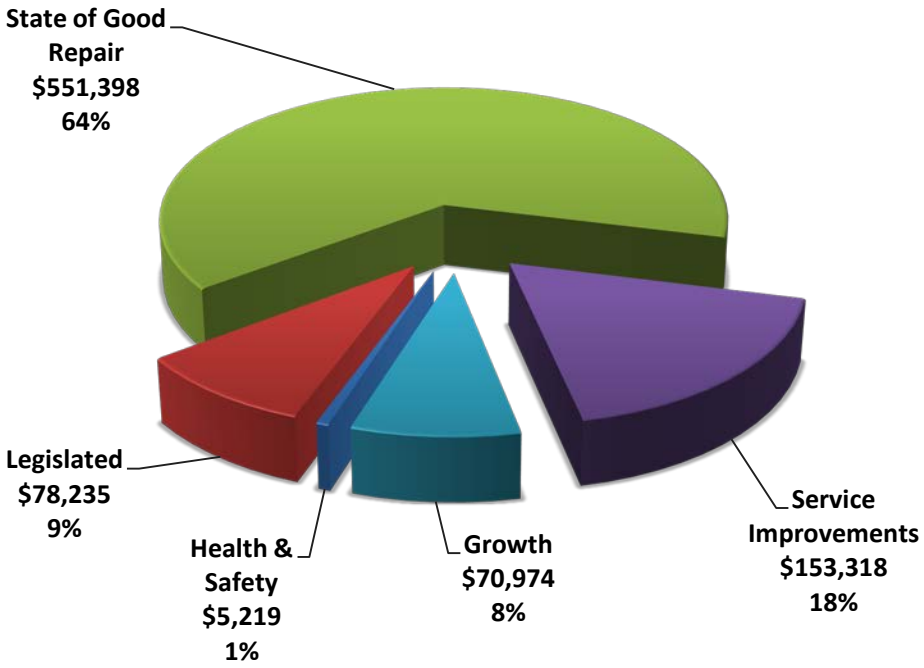
2016 Capital Completion Target was set at 85% of Gross Amount

2017 Capital Budget ($millions)
$859 Million (Gross)

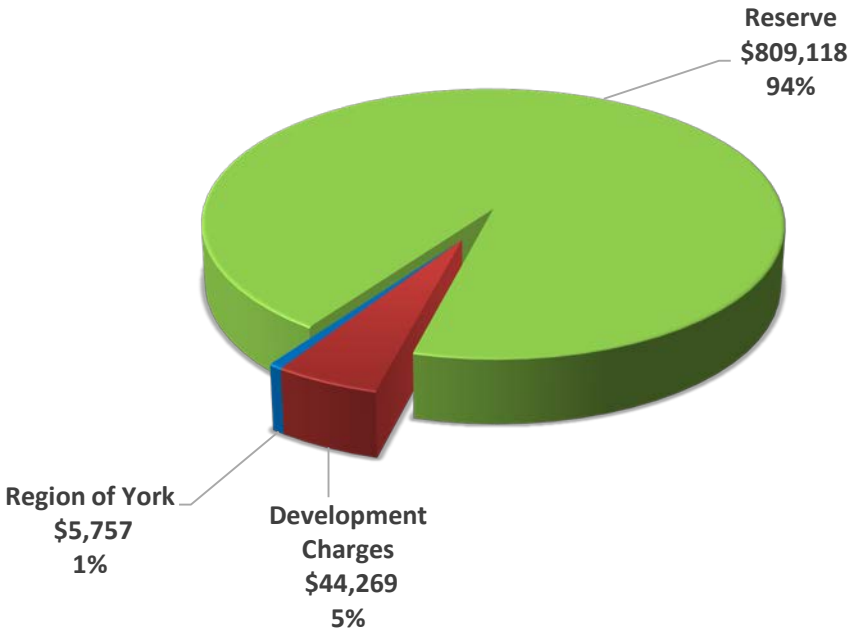


2017 Capital Budget by Project Category & Funding Source ($millions)

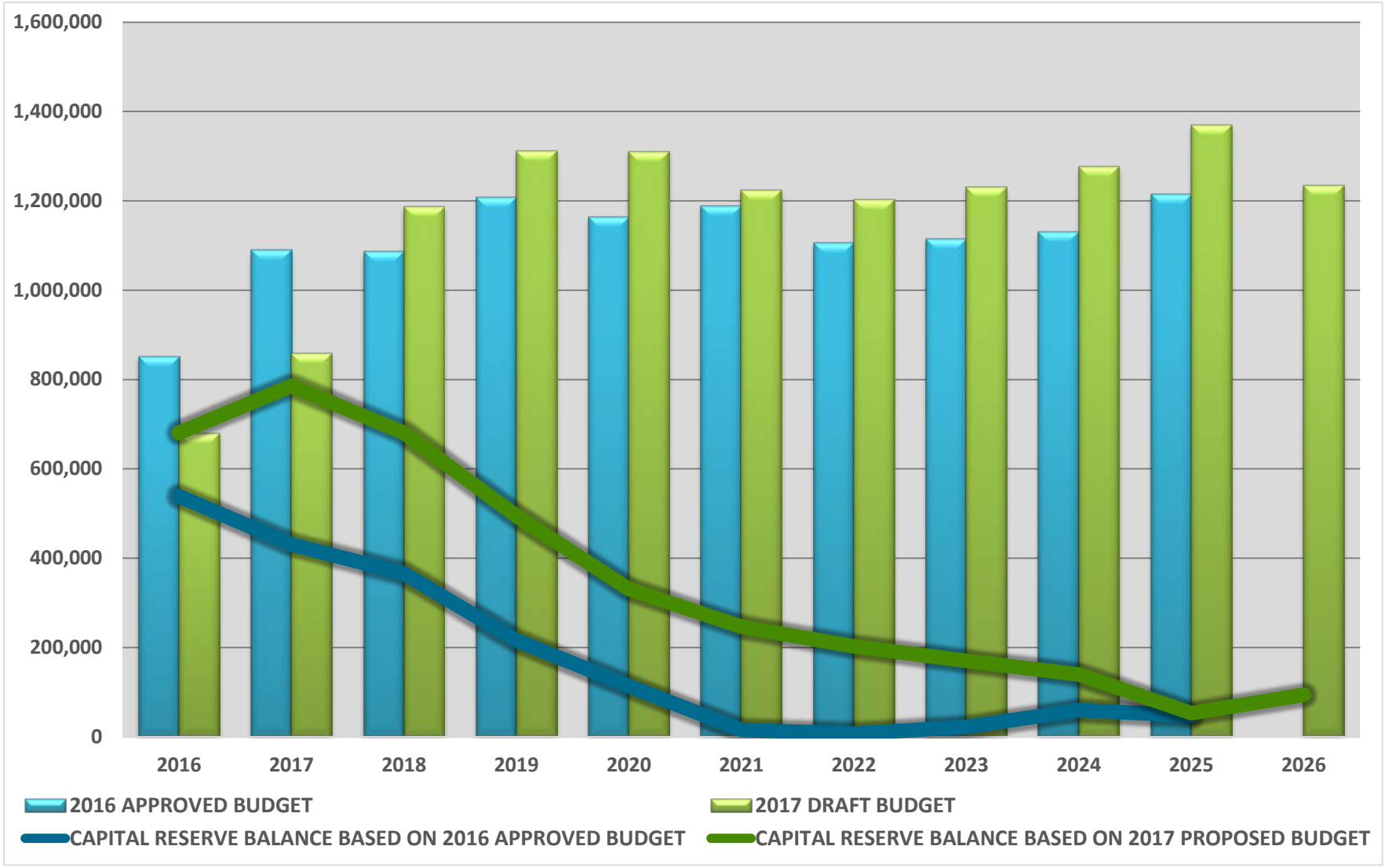
Capital Budget by Project Category $000's



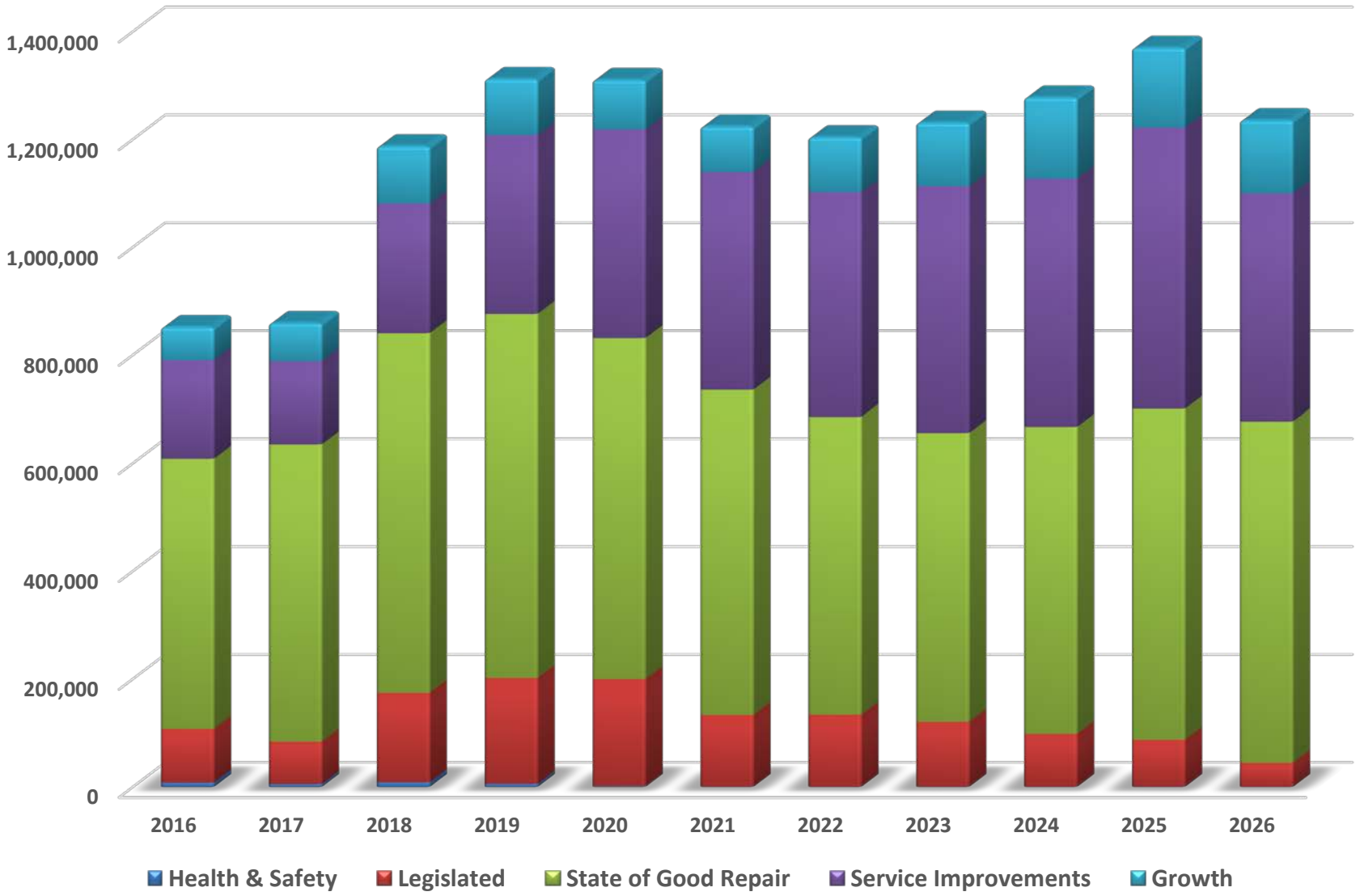
Capital Budget by Funding Source $000's



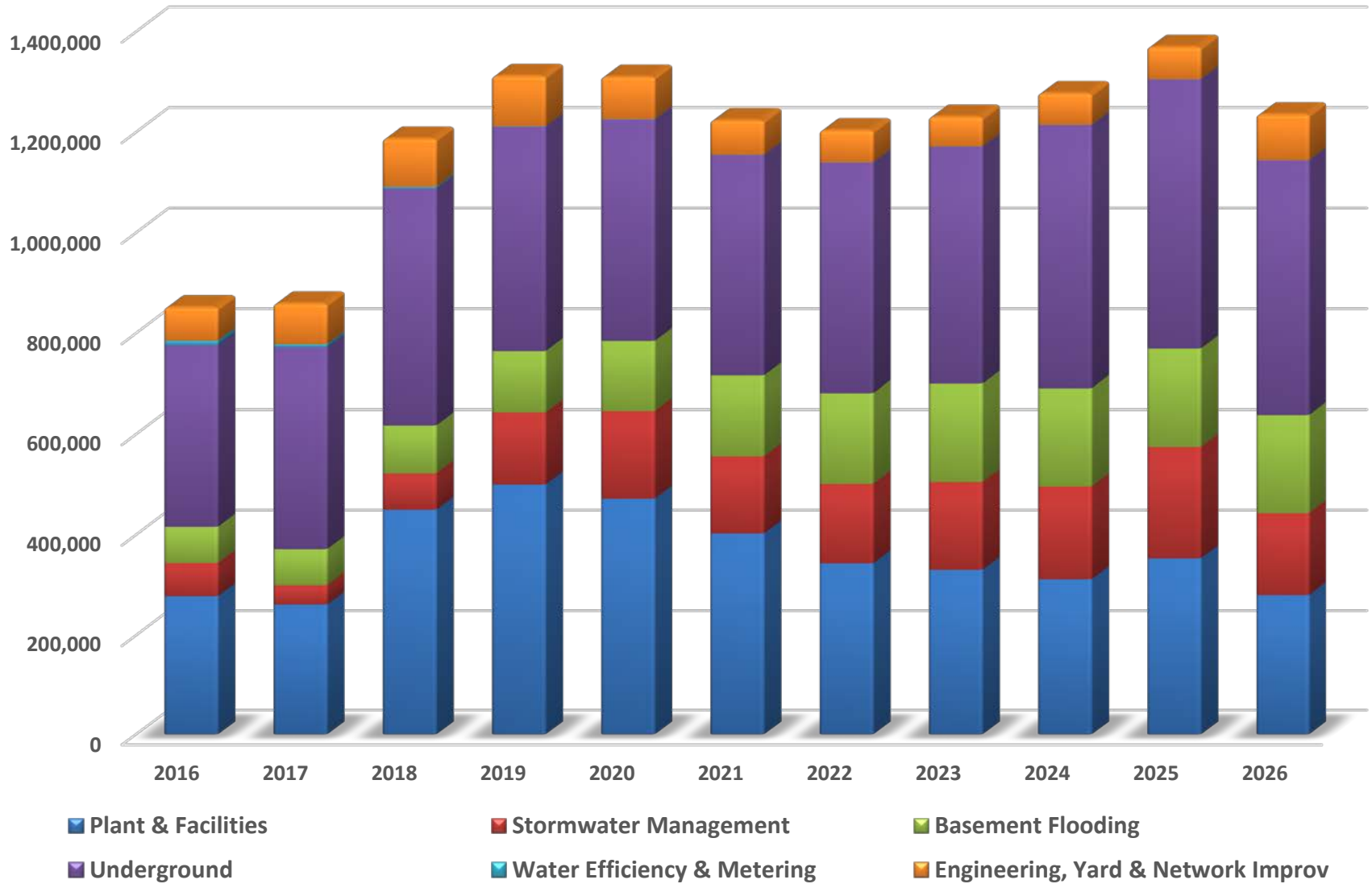
10-Year Capital Plan Comparison ($millions)



2016 – 2026 Capital Plan by Category



2016 – 2026 Capital Plan by Asset Class

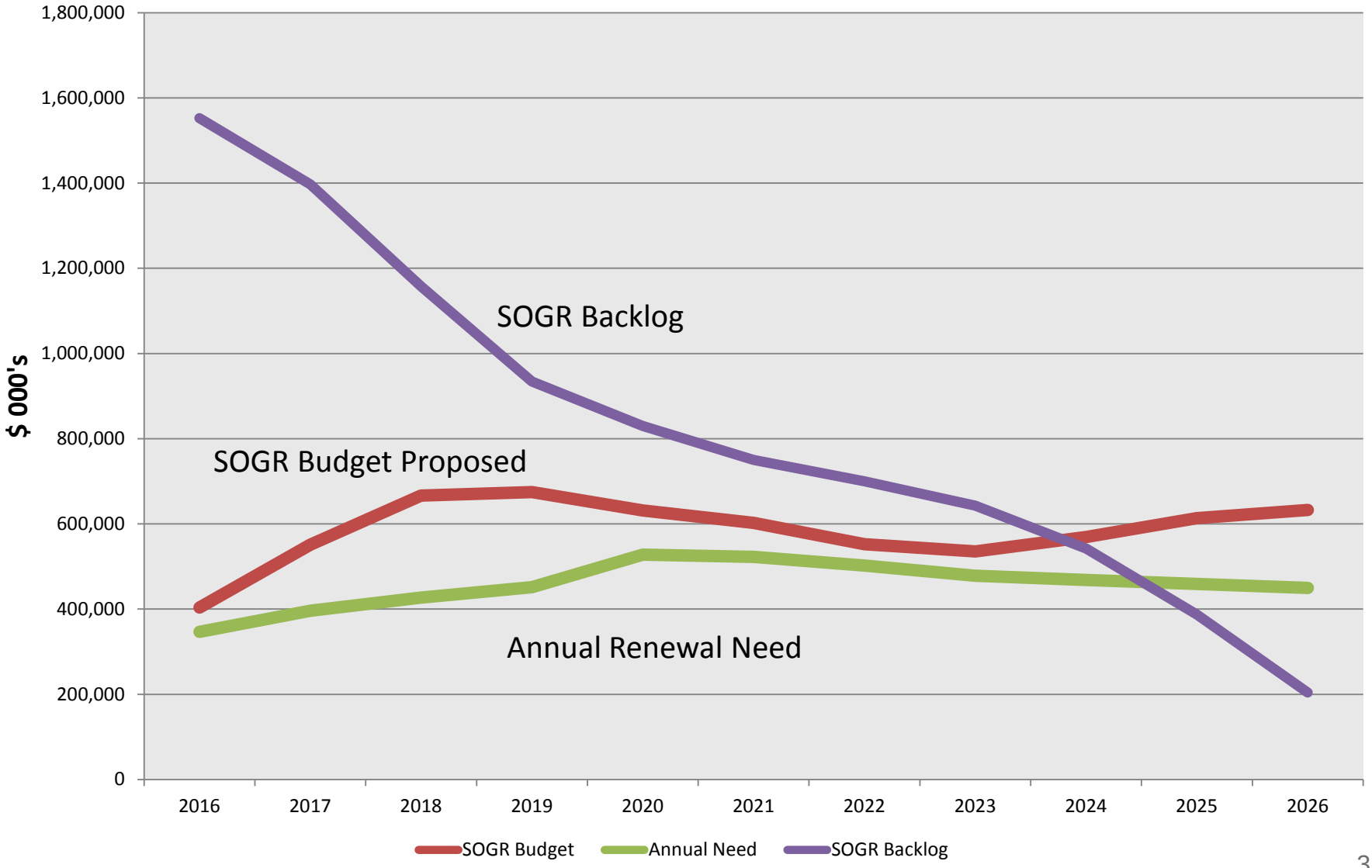


Capital Overview 2017-2026 - $12.2 Billion

Program Area	Key Programs and Projects
Water Treatment & Supply ($4.3 Billion)	▪ Watermain replacement ($1,141M) and structural watermain lining ($727M) ▪ Water service replacement – ($453M) ▪ Water treatment plant upgrades ($490M) ▪ Transmission watermain replacement ($427M) ▪ Reservoirs and pumping stations ($314M) ▪ Water Meter Program ($9M); Engineering Services ($389M); New Connections ($358M)
Wastewater Treatment & Collection ($4.9 Billion)	▪ Sewer replacement ($231M), sewer rehabilitation ($610M), and trunk sewer rehabilitation ($567M) ▪ Ashbridges Bay Treatment Plant Upgrades ($1,881M) ▪ Highland Creek Treatment Plant Upgrades ($535M) ▪ Humber Treatment Plant Upgrades ($405M) ▪ Pumping station rehabilitation ($113M) ▪ Engineering Services ($389M); Business & Technology ($84M); Yards & Facilities ($49M)
Stormwater Management ($3.0 Billion)	▪ Basement Flooding Protection Program ($1,547M) ▪ Wet Weather Flow Master Plan ($1,484M)

*48% of funding is allocated to State of Good Repair Projects

State of Good Repair Funding & Backlog




Toronto Water

FPARS – Program Service Levels

Service Levels Water Treatment & Supply Water Distribution		2013	2014	2015	2016	2017	2018	2019
Percent Time Operating Within 40 to 100 PSI Requirements	Approved/Target	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%
	Actual	99.7%	99.4%	99.5%	n.a.	n.a.	n.a.	n.a.
Watermain Breaks per 100 km of Water Distribution Pipe	Approved/Target	20.8	20.8	20.8	24.8	23.1	23.1	23.1
	Actual	25.1	29.6	28.2	n.a.	n.a.	n.a.	n.a.
Water Treatment								
Electrical kWH per ML of Water Pumped	Approved/Target	317	340	340	340	340	340	340
	Actual	335	337	333	n.a.	n.a.	n.a.	n.a.
Water Treatment Non-Compliance Events	Approved/Target	0	0	0	0	0	0	0
	Actual	4	0	1	n.a.	n.a.	n.a.	n.a.
Transmission Valve Chambers Inspected	Approved/Target	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	Actual	1,288	828	1,075	n.a.	n.a.	n.a.	n.a.
Megalitres of Reservoir Storage Capacity Maintained	Approved/Target	1,895	1,895	1,895	1,895	1,895	1,895	1,895
	Actual	1,895	1,895	1,895	n.a.	n.a.	n.a.	n.a.
Wastewater Collection & Treatment Wastewater Collection								
Percent Sewer Service Line Blocked Requests Resulting in Repair or Rehab	Approved/Target	n.a.	n.a.	30.0%	30.0%	29.0%	29.0%	28.0%
	Actual	20.0%	31.0%	33.0%	n.a.	n.a.	n.a.	n.a.
Mainline Backups per 100 KM of Pipe	Approved/Target	5.27	5.27	5.27	5.27	5.27	5.27	5.27
	Actual	11.79	13.38	14.08	n.a.	n.a.	n.a.	n.a.
Wastewater Treatment								
Percent Samples Not Meeting NMA Requirements	Approved/Target	0%	0%	0%	0%	0%	0%	0%
	Actual	0%	0%	0%	n.a.	n.a.	n.a.	n.a.
Wastewater Treatment Non-Compliance Events	Approved/Target	0	0	0	0	0	0	0
	Actual	1	1	6	n.a.	n.a.	n.a.	n.a.
Percent Wastewater Pumping Stations Meeting Legislative Requirements	Approved/Target	100%	100%	100%	100%	100%	100%	100%
	Actual	100%	100%	100%	n.a.	n.a.	n.a.	n.a.
Stormwater Management Stormwater Collection								
Percent Catch Basins Cleaned	Approved/Target	100%	100%	100%	100%	100%	100%	100%
	Actual	98%	97%	110%	n.a.	n.a.	n.a.	n.a.
ML of Dedicated (designed) Stormwater Storage Capacity	Approved/Target	1,246	1,246	1,246	1,246	1,248	1,275	1,304
	Actual	1,242	1,242	1,246	n.a.	n.a.	n.a.	n.a.
Stormwater Treatment								
Drainage Area (hectares) Where Quality Control Provided	Approved/Target	7,065	7,065	7,065	7,065	7,065	7,065	7,065
	Actual	6,979	6,979	6,990	n.a.	n.a.	n.a.	n.a.
Stormwater Control & Conveyance Systems Meeting Certificates of Approval	Approved/Target	100%	100%	100%	100%	100%	100%	100%
	Actual	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Service Standards

Service Standards measure response times to 311 Customer Service Requests. These measures are an indication of how we are able to respond to operational and environmental issues.

Activity Type	Service Levels			
	2013 to 2015	% Within Standard 2015	% Within Standard YTD 2016 (Q1+Q2+Q3)	Target Performance
Watermain-Possible Break	2 hours	77%	82%	85%
Water Service Line-Leaking	4 hours	58%	56%	75%
Water Service Line -Low Pressure, Low Flow	24 hours	74%	72%	75%
Water Service Line - No Water	4 hours	65%	77%	75%
Water Service Line - Turn Off/Burst	2 hours	82%	86%	75%
Water Service Line -Turn Off (non emergency)	8 hours	84%	88%	75%
Water Service Line -Turn On	8 hours	92%	93%	75%

Toronto Water

Water Rate Model Assumptions for 2017

Consumption Forecast

- 2016: 0.5% below 2015 actual ($5 million revenue impact)
- 2017 and forward: 0.5% decrease a year

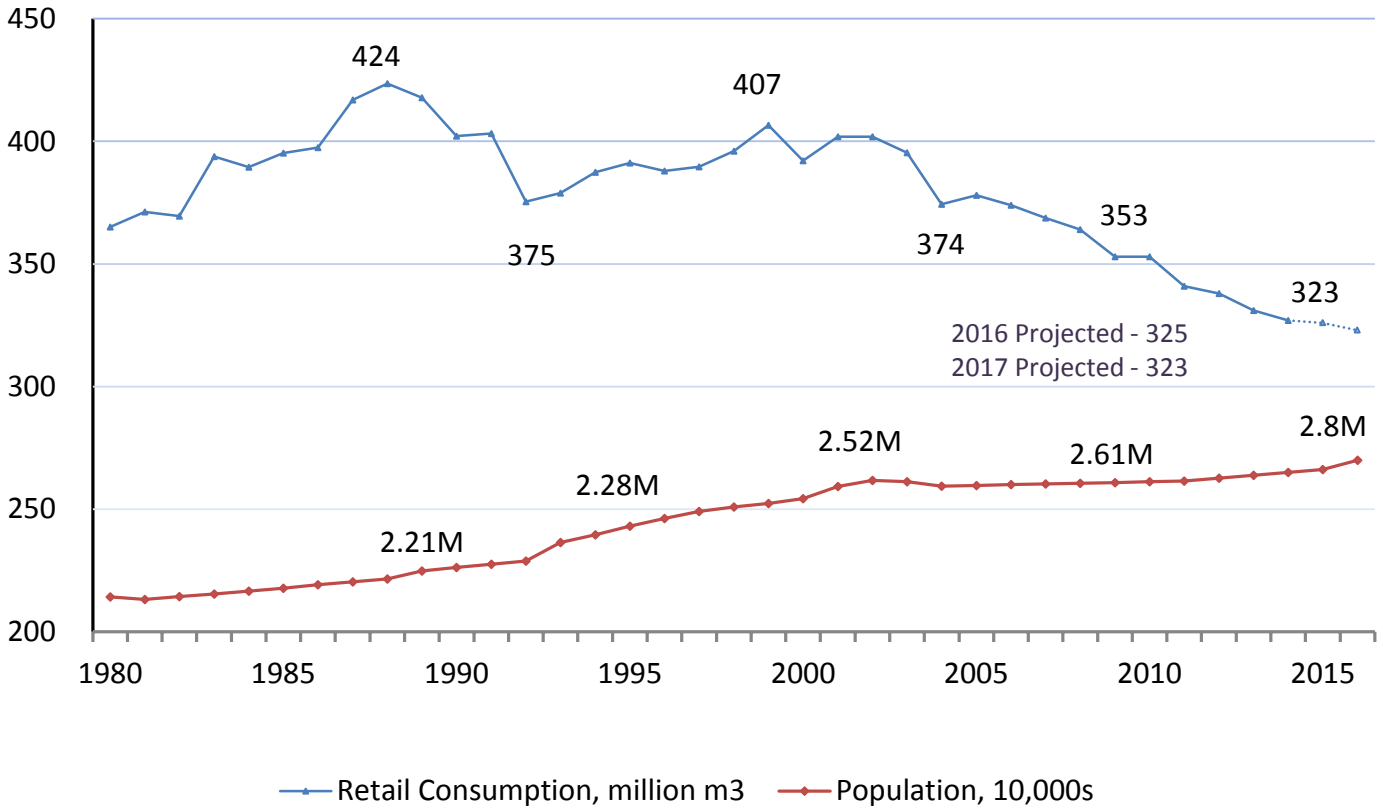
Capital Expenditure Rate Forecast

- 2016: 79.7%
- 2017 and forward: 85%

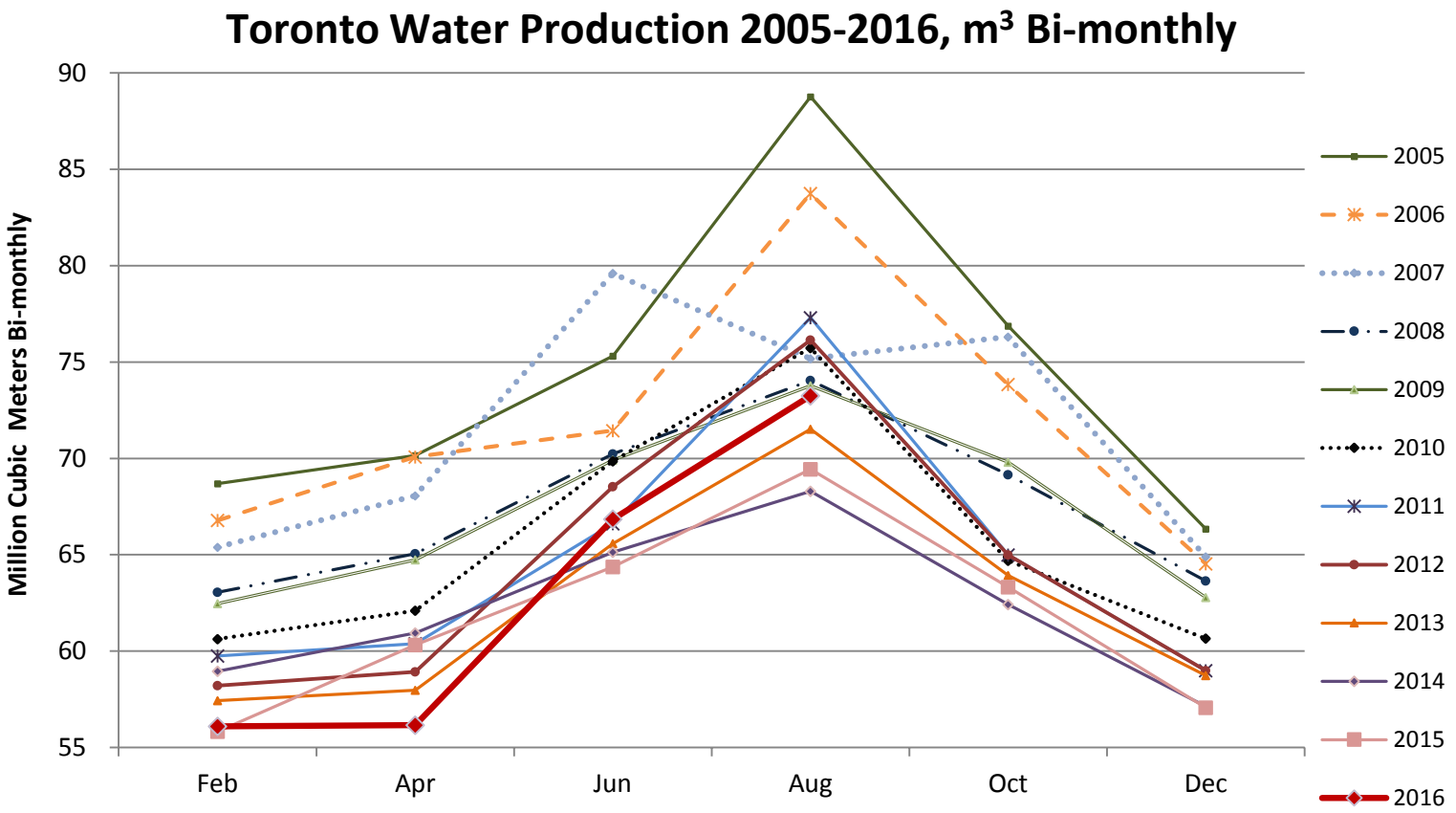
Rate Increases

- 2017 and 2018: 5%
- 2019 forward: 3%

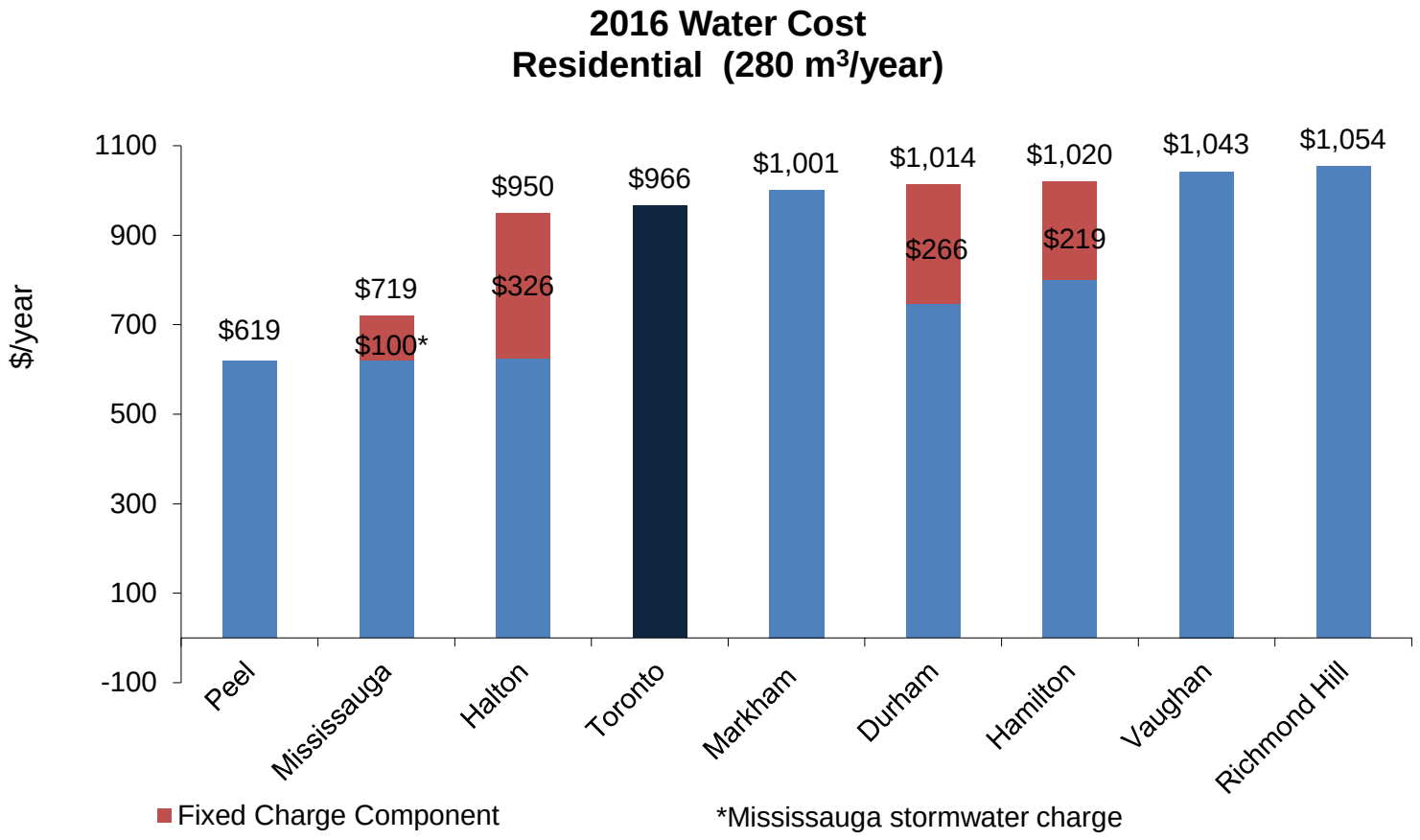
Population and Water Consumption



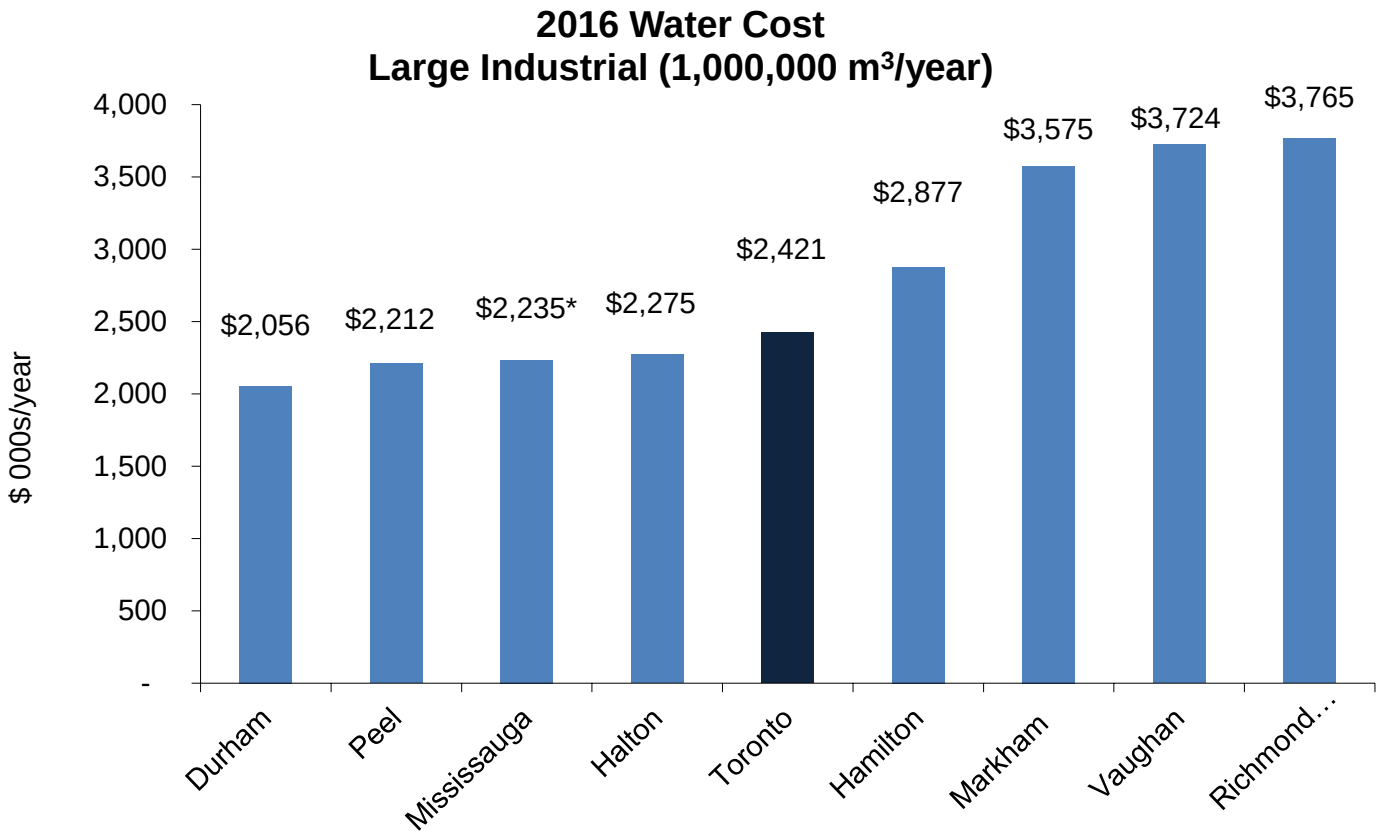
Water Production



How Does Toronto Compare?

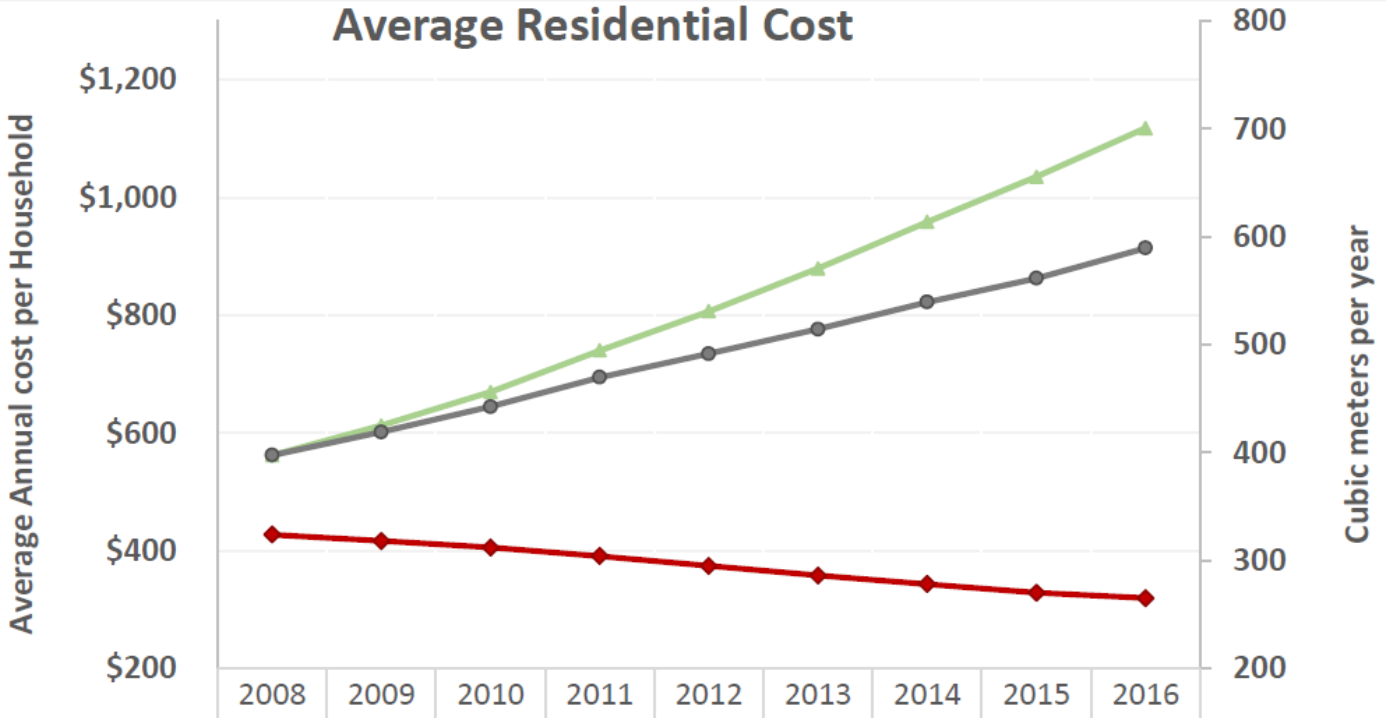


How Does Toronto Compare?



*Includes Mississauga stormwater charge

Impact of Rate Increases



	2008	2009	2010	2011	2012	2013	2014	2015	2016
Residential cost with constant consumption at 2007 level, $/y	$562	$613	$669	$740	$807	$879	$958	$1,035	$1,118
Residential cost with actual consumption $/y	$562	$601	$645	$694	$734	$776	$822	$863	$914
Average annual consumption per household m3/y	324	318	312	304	295	286	278	270	265

2017 Water Rate Increase Impact

Type of Property	Average Consumption	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%

Daily cost for all residential drinking water, wastewater and stormwater services only $2.63 per day.

Projected Water Rate Increase

			2017 - 2026 Plan									
TORONTO WATER	**2016 Budget**	**2016 Projected Actual**	**2017**	**2018**	**2019***	**2020**	**2021**	**2022**	**2023***	**2024**	**2025**	**2026**
Water Rate Increase	8%	8%	5%	5%	3.6%	3%	3%	3%	3.6%	3%	3%	3%
WATER RATE REVENUE, $M	**$1,080**	**$1,099**	**$1,146**	**$1,197**	**$1,226**	**$1,264**	**$1,295**	**$1,326**	**$1,359**	**$1,400**	**$1,435**	**$1,470**
Water Rate Revenue Increase, $M			4.3%	4.4%	2.4%	3.0%	2.5%	2.5%	2.5%	3.1%	2.5%	2.5%
CAPITAL RESERVE CLOSING BALANCE	**$539.0**	**$680.9**	**$784.7**	**$679.8**	**$493.8**	**$330.0**	**$246.0**	**$202.3**	**$169.7**	**$139.0**	**$52.7**	**$93.5**

** Post Election Year- New Rates applied in March*

Toronto Water