



Environmental Services 2015 Business Plan and Budget

Presentation to
Committee of the Whole

Erin Mahoney

February 19, 2015

Agenda

1

OVERVIEW



2

CAPITAL



3

OPERATING



4

BUDGET HIGHLIGHTS



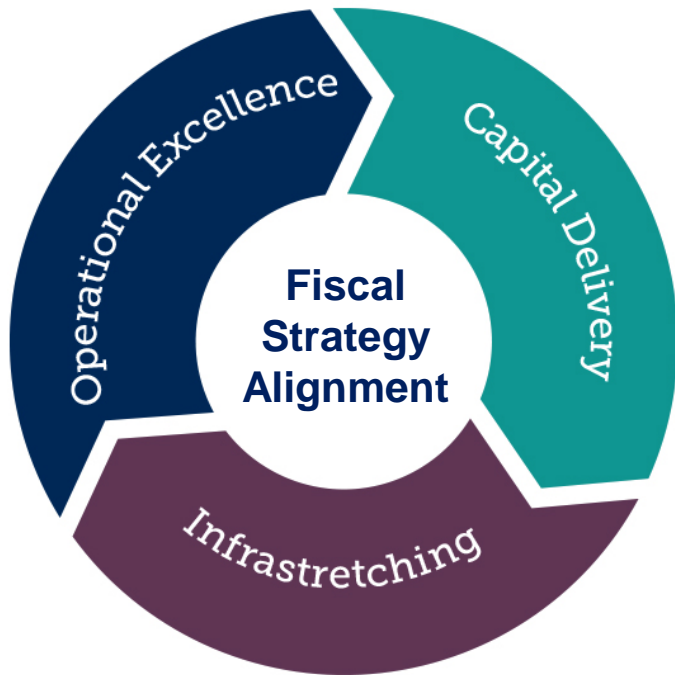
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NEXT STEPS



1 OVERVIEW

Core Service Delivery Responsibilities



Delivering Critical Infrastructure

- Driving \$2.3B 10-year capital plan
- Implementing asset management for infrastructure renewal
- Expanding Urban Forest and preserving Regional green space

Realizing Operational Excellence

- Providing services to 1.2M residents
- Managing \$4.0B in capital infrastructure
- Managing 365,000 tonnes of solid waste per year
- Operating in compliance with complex regulatory framework

Maintaining high level of execution and effectively managing competing pressures

Embracing the New Normal

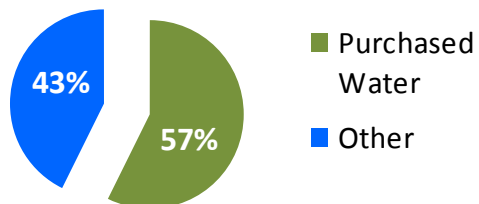


Managing evolving pressures through innovation, infrastretching and enhanced analytics

Leveraging Partnerships to Drive Efficiencies

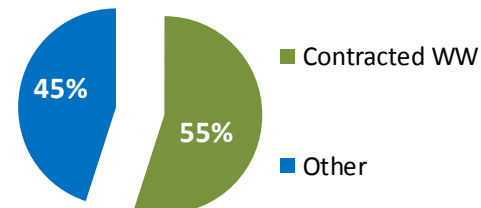
WATER

57% of direct costs are for purchased water



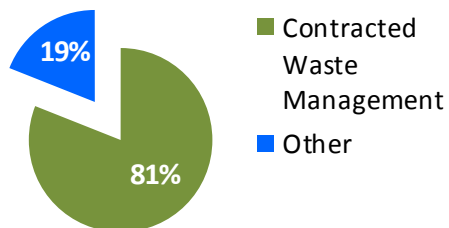
WASTEWATER

55% of direct costs are for Wastewater treatment costs from Peel and Durham



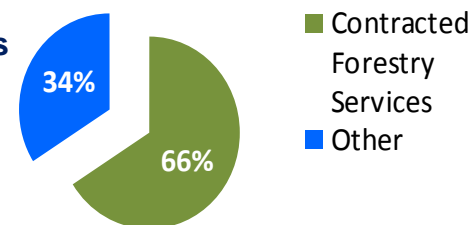
WASTE MANAGEMENT

81% of Waste Management costs are 3rd party contracts



FORESTRY

66% of direct costs are contracted services for tree planting, removal and Greening Strategy



Contract arrangements provide critical services and achieve economies of scale that help control operational costs to deliver high quality services

Innovation Linked to Collaboration



Innovation with our partners drives effective solutions

2014 Key Accomplishments

WATER

- Awarded 24 capital contracts valued at over \$80M and updated water supply agreement with Peel
- Achieved industry leading top marks of 100% for MOECC inspections and sampling results
- Leaders in research and innovation
- First to have Interim Risk Management Plan

WASTEWATER

- Awarded 24 capital contracts valued at \$228M
- Commissioned 15km Southeast Collector
- Reduced 1.5MLD of inflow and infiltration
- Received multiple awards for Keswick WPCP Outfall, including APWA Project of the Year

WASTE MANAGEMENT

- Finalized long term SSO contracts to 2027
- Constructed Durham York Energy Centre
- Achieved 84% diversion from landfill in 2014
- Received two awards from the Recycling Council of Ontario

FORESTRY

- Secured more than 70ha forested property
- Commissioned 3.8km VivaNext Streetscaping
- Planted 89,000 trees and shrubs through Greening Strategy partnerships
- Constructed 2km of accessible trail in the York Regional Forest

2015 – 2018 Multi-Year Key Initiatives



Addressing Business Challenges

- Change in capital plan to align with fiscal strategy
- Aging infrastructure with increasing capital needs to replace and upgrade systems
- Population growth increases demand for water, wastewater, waste management services and street tree maintenance
- Maintaining compliance in a complex regulatory framework and working environment
- Working in an urbanizing environment increases complexity of capital delivery
- Regulatory and climate change initiatives increase costs and complexity of capital delivery

Aligning with fiscal strategy through capital deferral and operational excellence



Meeting our Challenges Head-On



Reviews at program and department levels drive efficiencies and reductions

Driving Budget Efficiencies in Water

| Cutting Costs | Increasing Revenues | Optimizing Business Processes |
|--|--|--|
| <ul style="list-style-type: none">• \$3.0M in savings primarily through centralizing operations maintenance• Water sample program review to reduce annual costs by \$150K | <ul style="list-style-type: none">• Water rate increase to address asset management and move to full-cost recovery | <ul style="list-style-type: none">• Moving to 24/7 operations increasing coverage and optimizing risk management• Process optimization at Georgina Water Treatment Plant saving \$400K in carbon replacement• Continued review of capital expenditures to pace infrastructure delivery to growth• Infrestretching through servicing incentive program allowing allocation of 20% more units• In-line water tower robotic cleaning to minimize system disruption and reduce water loss• Reducing debt annualization by \$3M via capital plan deferrals |

\$3.7M savings in water and wastewater

Driving Budget Efficiencies in Wastewater

| Cutting Costs | Increasing Revenues | Optimizing Business Processes |
|---|---|--|
| <ul style="list-style-type: none"> • \$0.7M in savings through reductions in utilities and repairs and maintenance • Duffin Creek budget reduced by \$2M to better reflect actual costs incurred at the plant • Wastewater sample program review to reduce annual costs by \$68K | <ul style="list-style-type: none"> • Wastewater rate increase to address asset management and move to full-cost recovery • Increased fees for Sewer Use Bylaw Enforcement Program effective January 1, 2015 | <ul style="list-style-type: none"> • Moving to 24/7 operations increasing coverage and optimizing risk management • Continued review of capital expenditures to pace infrastructure delivery to growth • Infrestretching through servicing incentive program allowing allocation of 20% more units • Reducing debt annualization by \$28M via capital plan deferrals |

Increasing rates and fees to move towards full-cost recovery

Driving Budget Efficiencies in Waste Management and Forestry

| | Cutting Costs | Increasing Revenues | Optimizing Business Processes |
|-----------------|--|---|---|
| Waste | <ul style="list-style-type: none"> Decreasing 9,500 tonnes of waste managed to drive \$1M reduction New contracts and better prices resulting in \$147K in savings | <ul style="list-style-type: none"> Blue box arbitration decision providing \$1.2M more revenue Future Extended Producer Responsibility – advocating for 100% cost recovery Energy From Waste revenue sharing – \$9.4M revenue for electricity and metals offsetting processing costs | <ul style="list-style-type: none"> Equipment enhancements at Material Recovery Facility to separate up to 90% misdirected containers from mixed paper to avoid \$1.5M in annual costs and increase annual revenues by \$0.4M |
| Forestry | <ul style="list-style-type: none"> Increasing street tree survivability from 27% in 2003 to an estimated 78% in 2014 | <ul style="list-style-type: none"> Leveraged \$13.9M investment into \$88.9M of land protection and enhancement projects through key partnerships | <ul style="list-style-type: none"> Exploring automated watering of VivaNext rapidways to avoid \$0.6M in annual operating costs beginning in 2020 |

Delivering fiscally responsible 0.5% tax levy decrease

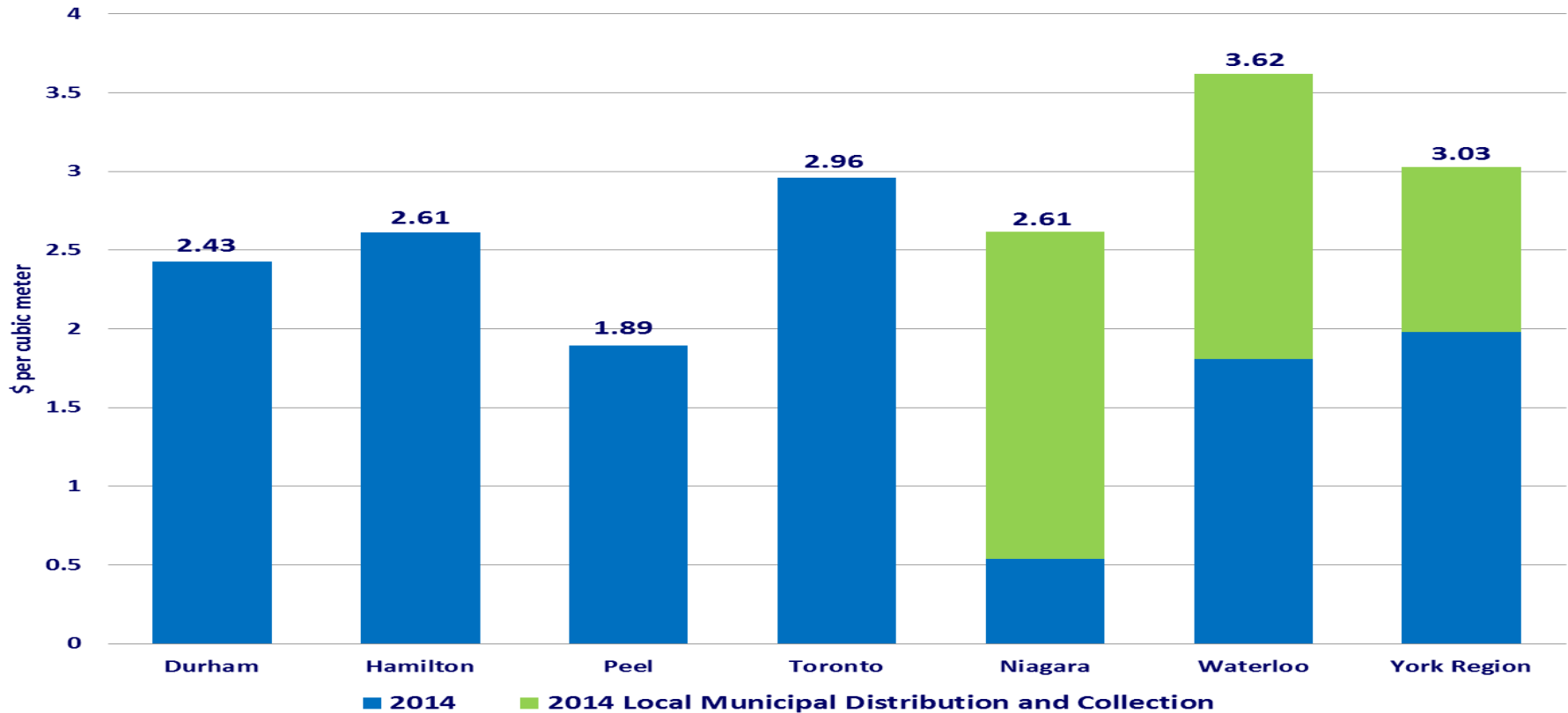
Increasing Rate Pressures



- Legislative and regulatory requirements are increasing capital costs
- Additional costs and resource requirements to operate more complex infrastructure
- Funding of capital rehabilitation and replacement projects (i.e., debt funding, reserves)
- Water conservation lowering flow volumes
- Cost of purchased services are increasing including costs of water from Peel and Toronto
- Need for full cost recovery

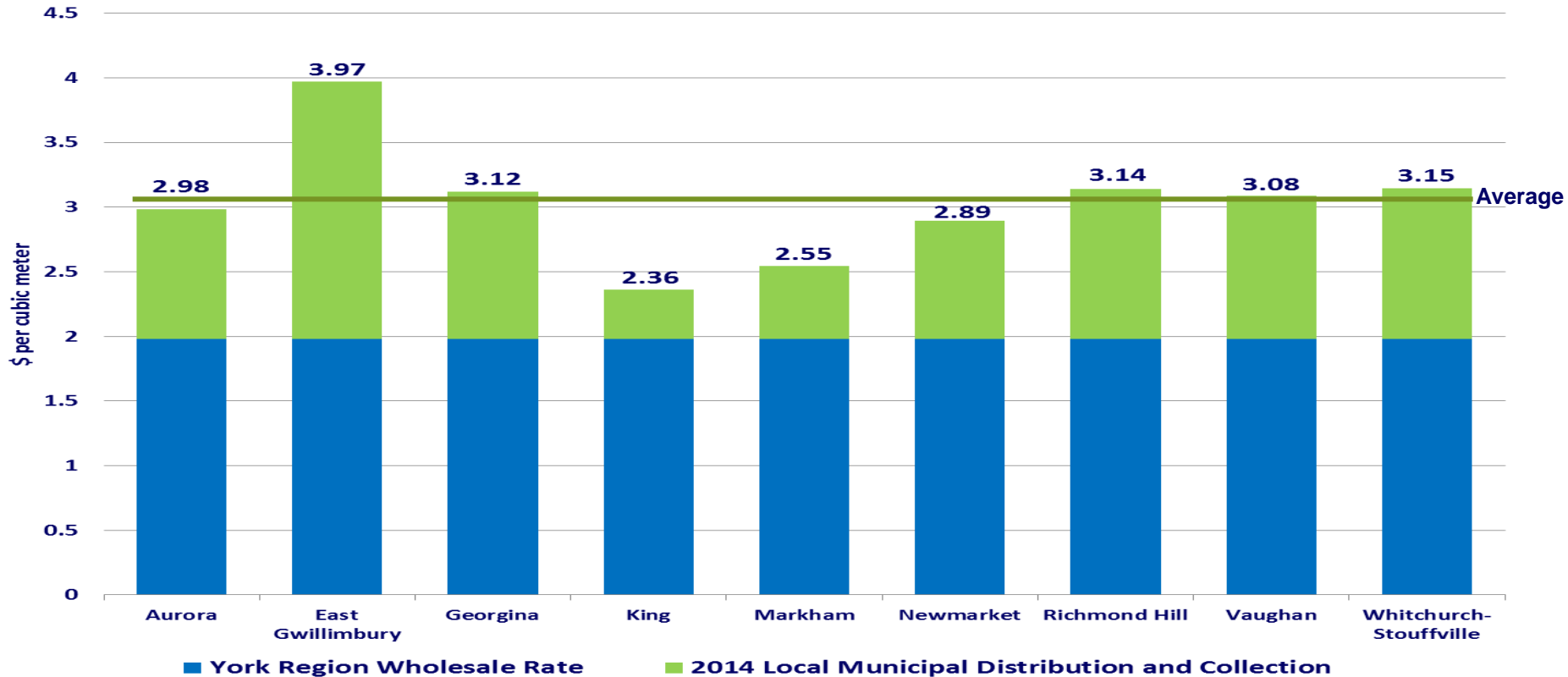
Aging infrastructure and reduced demands per capita are key drivers of rate pressures

Water & Wastewater 2014 Municipal Rate Comparison



2014 retail rate in York is comparable to other large municipalities

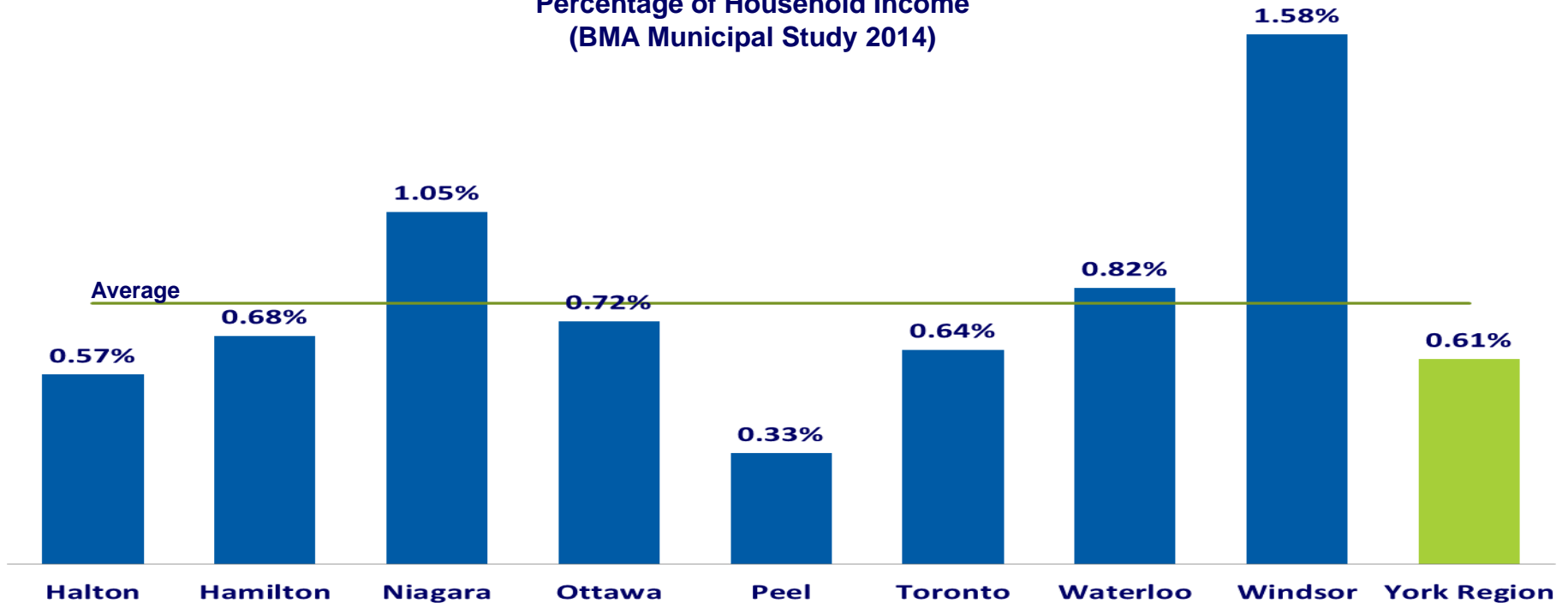
2014 Local Municipal Rate Comparison



Average retail rate in 2014 amongst local municipalities was \$3.03

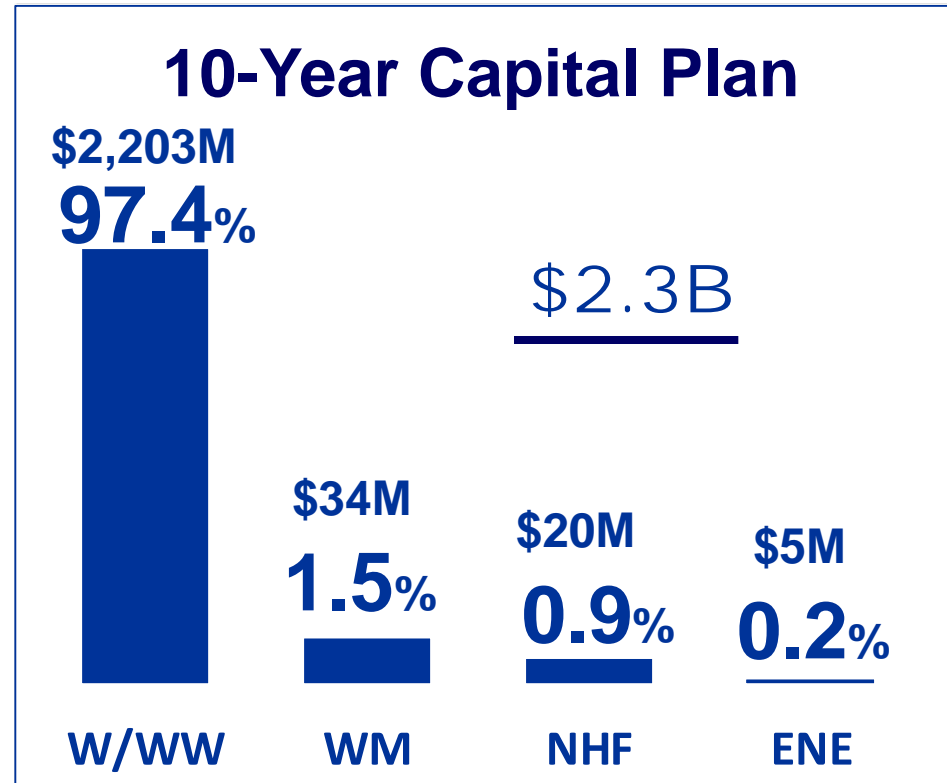
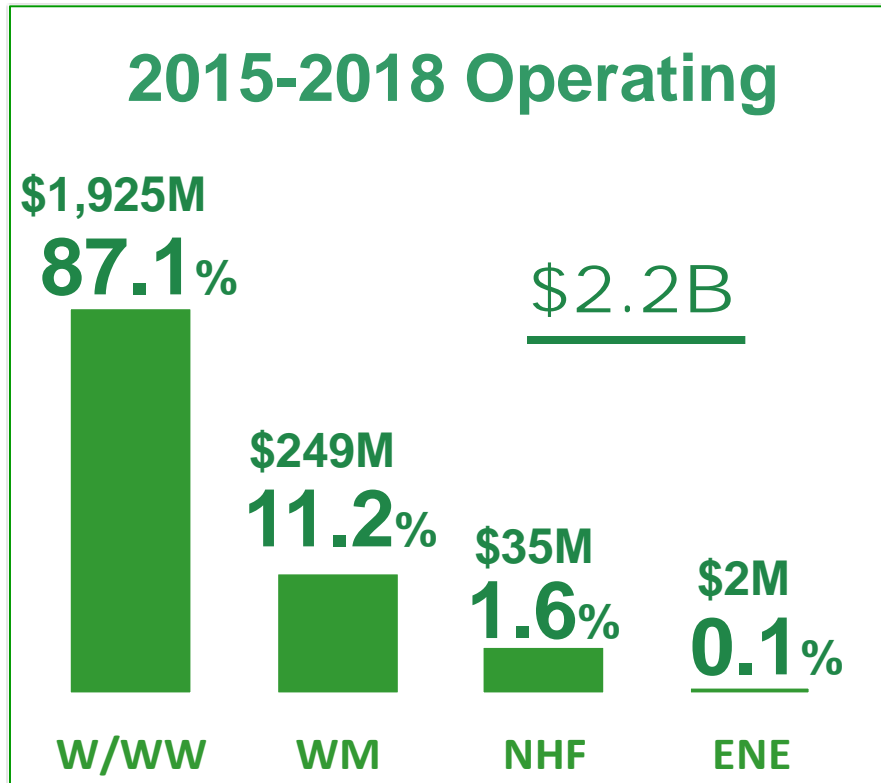
Water and Wastewater Costs as a Percentage of Household Income

Water/Wastewater Costs as a Percentage of Household Income (BMA Municipal Study 2014)



Cost of water and wastewater in York Region is a good value representing only 0.61% of household income

Overview of 2015-2018 Operating Budget & 10-Year Capital Plan



Continued reductions in capital plan influence operating budget

High Quality Service Provided Through Evidence-Based Decision-Making

ZERO

water restrictions
since 2008

ZERO

boil water advisories
since 2004

100%

of residents rely
on our services

1M⁺



trees planted
since 2001

84%

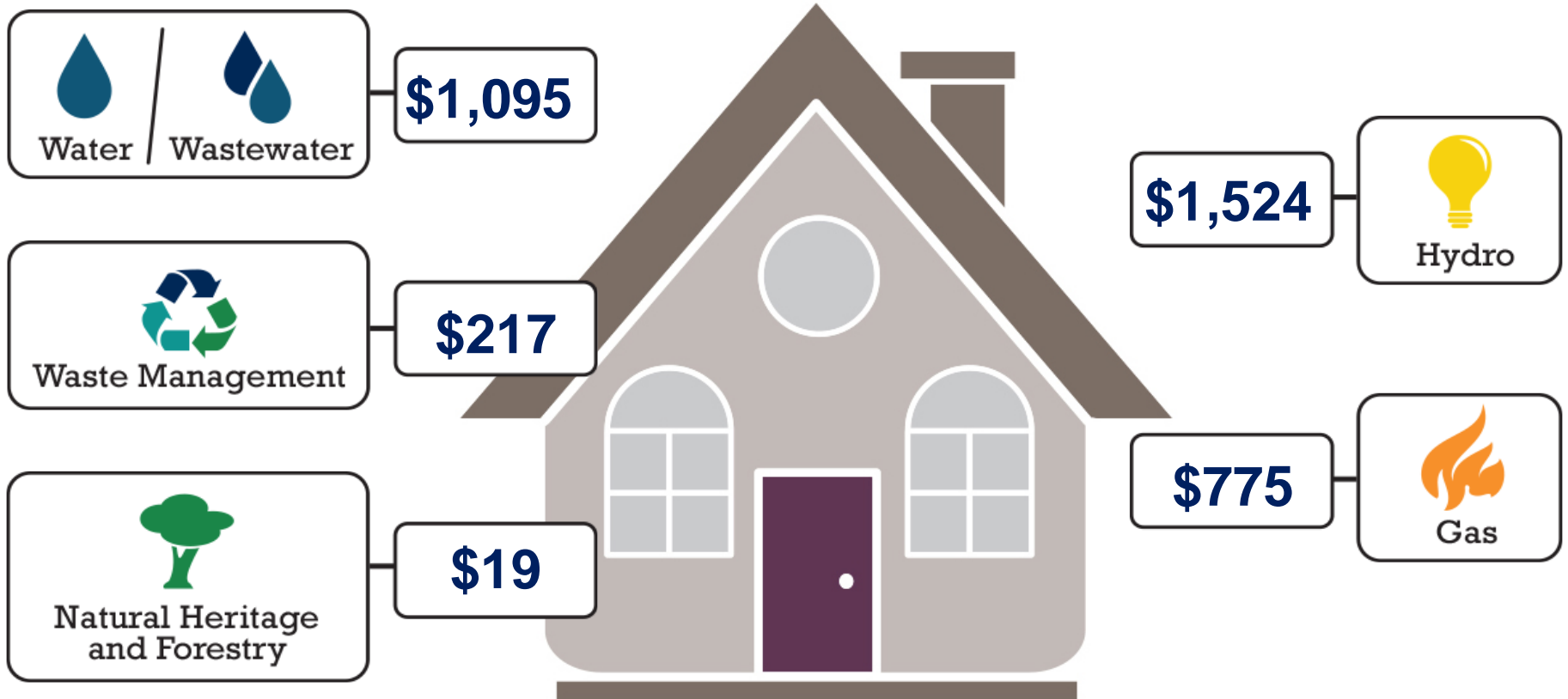


of waste diverted
from landfill in 2014

\$3.6B

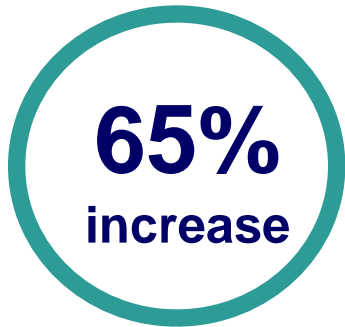
of capital delivered over
last 10 years to unlock
capacity and manage assets

Annual Environmental Services vs. Other Household Costs

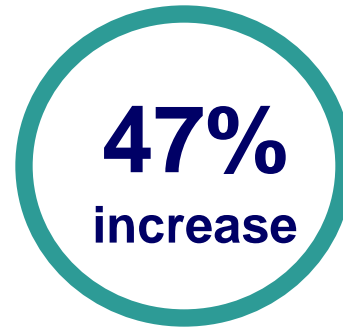


Providing quality environmental services for less than \$26/week per household

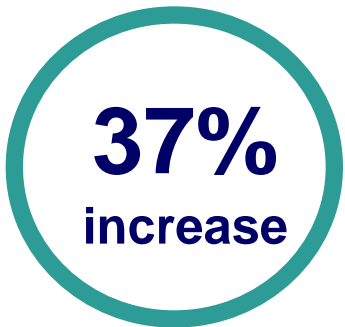
2014 Service Volume Indicators (% Increase from 2005 to 2014)



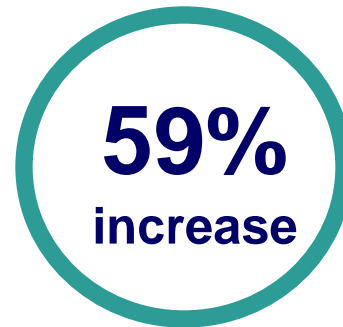
Gross Cost of
Capital Delivery
\$461M



Proposed 10-Year
Capital Plan
\$2.3B



Complex
Facilities
Managed
145



Kilometres of
Water/Sewer Mains
Maintained
635 kms

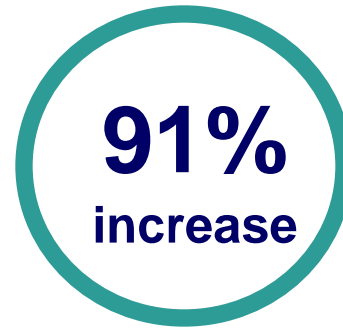
**Double and triple digit service volume increases
drive cost and resource pressures**

2014 Service Volume Indicators

(% Increase from 2005 to 2014)



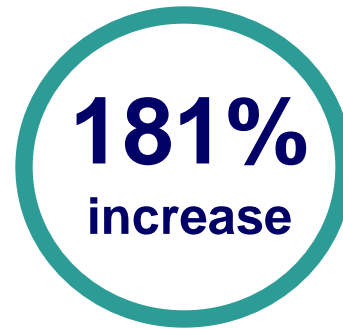
Built Assets
\$4.0B



WDO Diversion Rate
(Forecasted)
63%



Street Tree
Assets
38,000

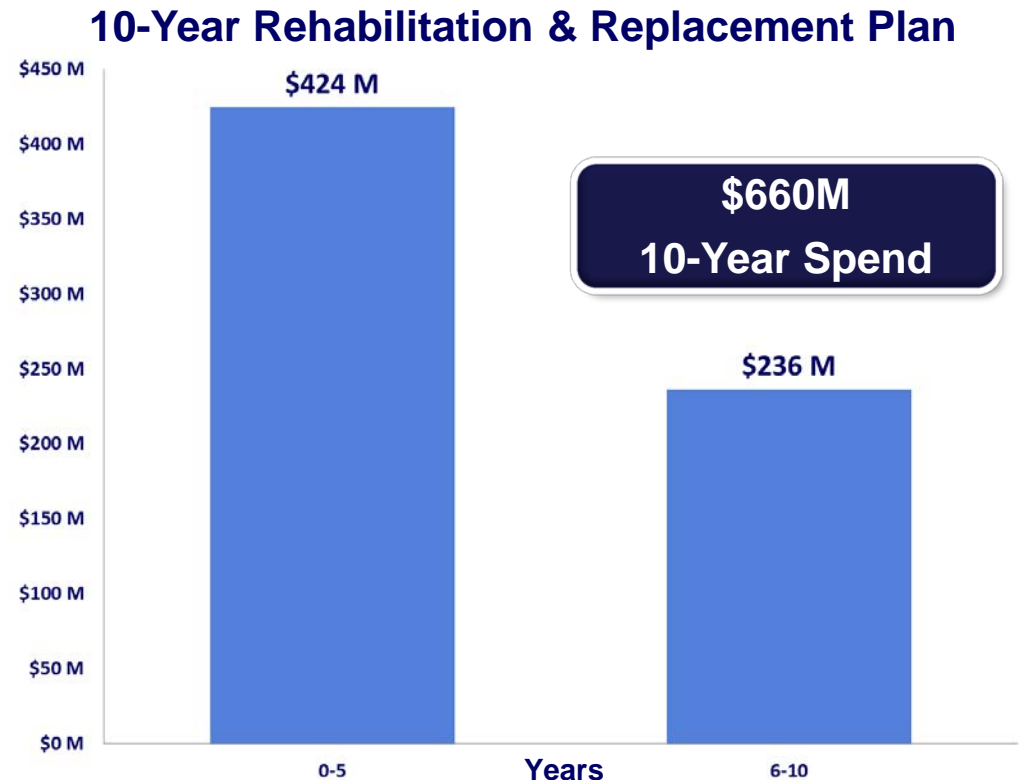


Proposed Gross
Operating Budget
\$520M

Built assets have nearly tripled since 2005

Investing in Existing Infrastructure

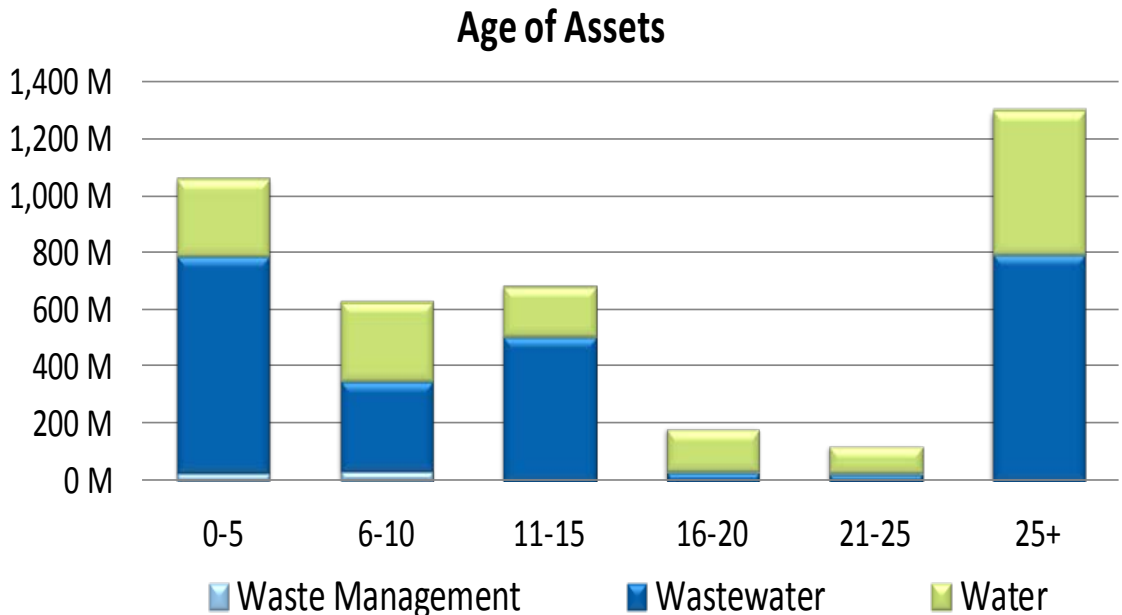
- \$66M average annual investment over the next 10 years required to rehabilitate and replace infrastructure
- Key asset management projects include:
 - Duffin Creek Incinerators \$135M
 - Trunk Sewers \$97M
 - Transmission Mains \$44M
 - Southeast Collector \$39M



**Long-term asset management plan identifies over
\$1B investment required by 2033**

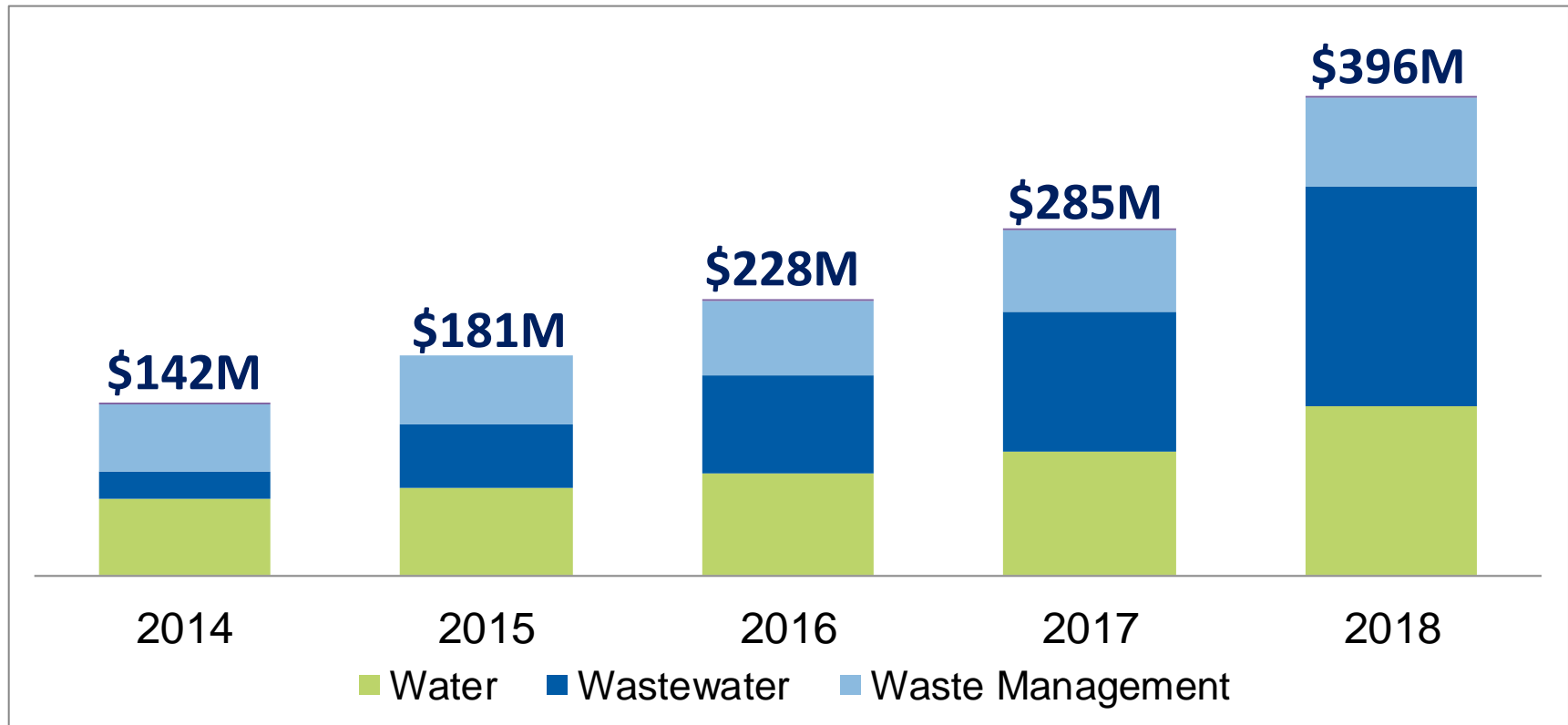
Reserves and Future Infrastructure Investment

- 16% of 2015 water and wastewater rate contributes to capital replacement reserves
- Over \$26M of blue box revenues contributed to Solid Waste Reserve between 2009 and 2014
- Replacement values expected to escalate as more complex assets are commissioned



Continued reserve contributions required for sustainable asset management

Status of Reserves 2015 - 2018 Forecast

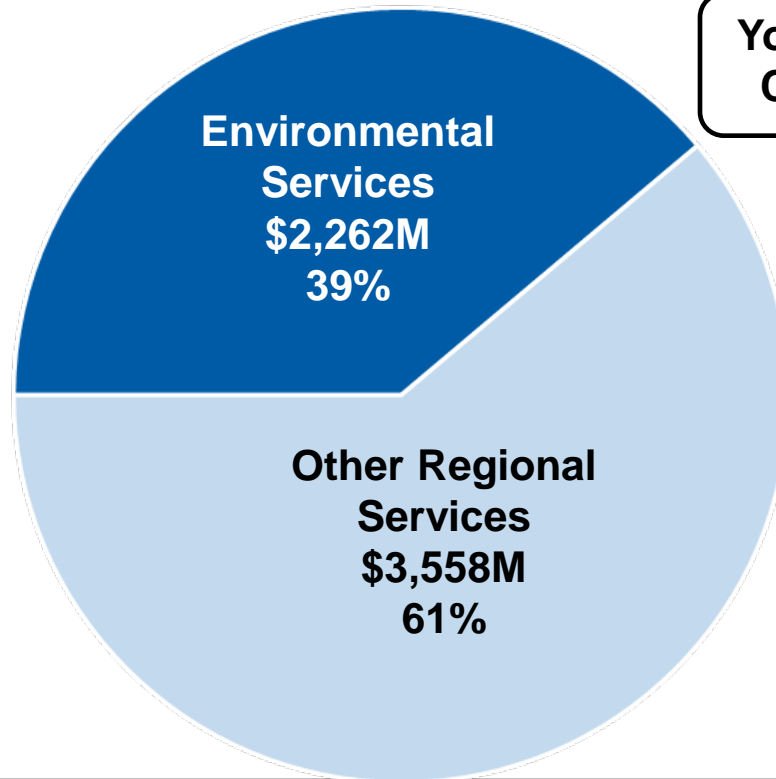


**Continued investment in reserves critical to funding
rehabilitation and replacement of \$4B asset base**

2 CAPITAL

York Region 10-Year Capital Plan

York Region 2015 10-Year
Capital Plan: \$5,820.3M



Environmental Services represents 39% of the
Region 10-year capital plan

Proposed Capital Budget at a Glance

| Capital Budget | \$ Millions |
|---------------------------------|-------------|
| 2015 Capital | 363 |
| 10-Year Capital Plan | 2,262 |
| 2015 Capital Spending Authority | 1,228 |

Capital budget focused on delivering required capacity to service growth and sustain critical infrastructure

Proposed Changes to 2015 Outlook

Capital Budget

2015 Outlook \$458M

Proposed Change (\$95M)

2015 Proposed Budget \$363M

Capital Spending Authority (10 Year Total)

2015 Outlook \$1,325M

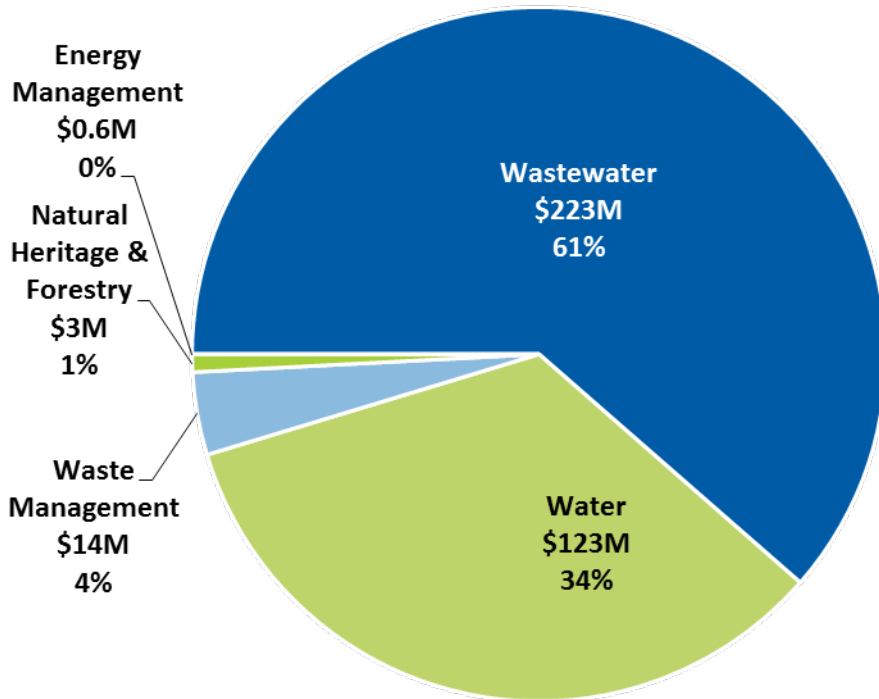
Proposed Change (\$207M)

2015 Proposed Budget \$1,118M

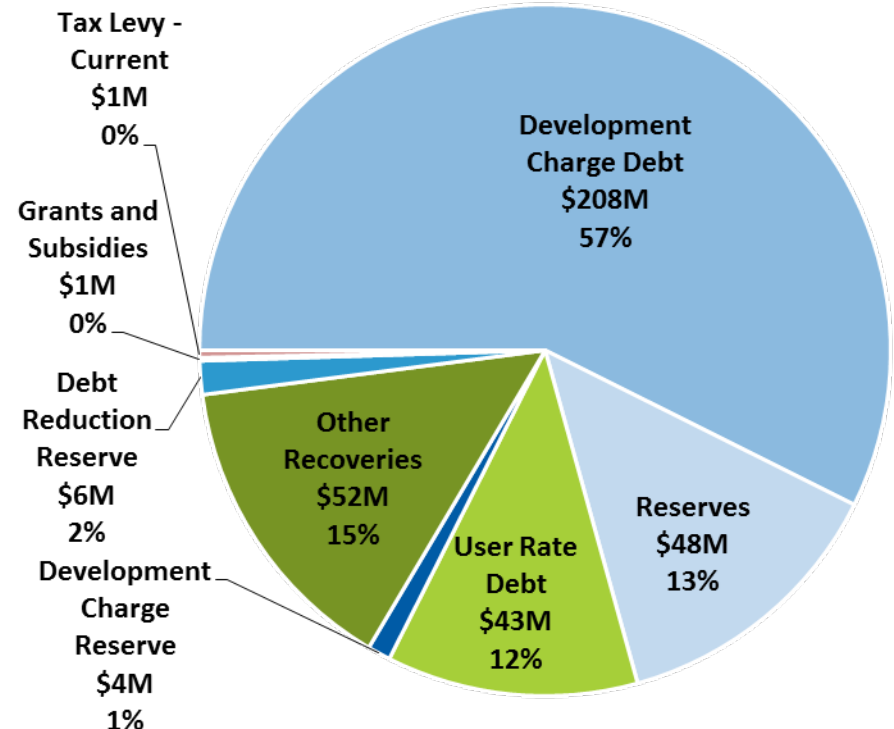
Environmental Services capital reductions align with fiscal strategy

2015 Capital Budget Overview

**Gross Expenditures
\$363 Million**



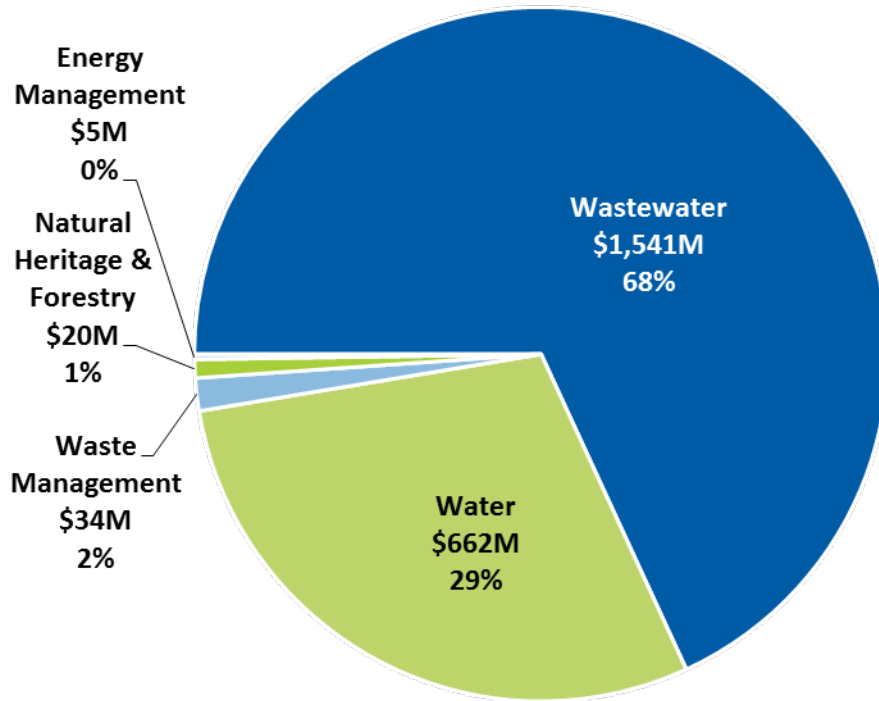
**Financing Sources
\$363 Million**



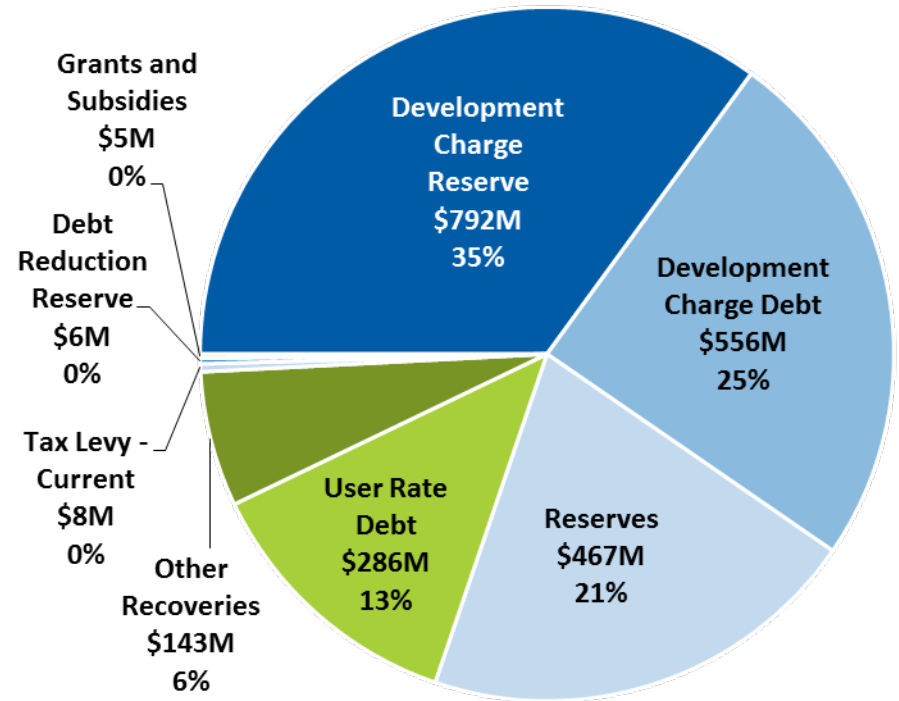
\$363M 2015 Capital Budget with over 105 active projects

10-Year Capital Plan Overview

**10-Year Plan
\$2.3 Billion**



**10-Year Funding Sources
\$2.3 Billion**



Water and Wastewater Budget represents 97% of 10-year capital plan with 38% financed through debentures

2015 to 2024 Capital Plan



Water

\$662M

Asset Rehabilitation & Replacement

\$222M

Peel Cost Share

\$112M

Toronto Cost Share

\$89M

Conservation

Authorities

\$52M



Wastewater

\$1,541M

Upper York

\$520M

Asset Rehabilitation & Replacement

\$409M

Duffin Creek Stages

1 & 2

\$149M

West Vaughan

\$121M



Waste Management

\$34M

Asset Rehabilitation & Replacement

\$16M

Durham York Energy Centre

\$10M

Community

Environmental Centre Upgrades

\$5M



Natural Heritage and Forestry

\$20M

Street Tree Planting

\$10M

York Greening Initiative

\$3M

Emerald Ash

Borer Street Tree Replacement

\$2M



Energy Management

\$5M

Energy Retrofit – Various Existing Buildings

\$2.7M

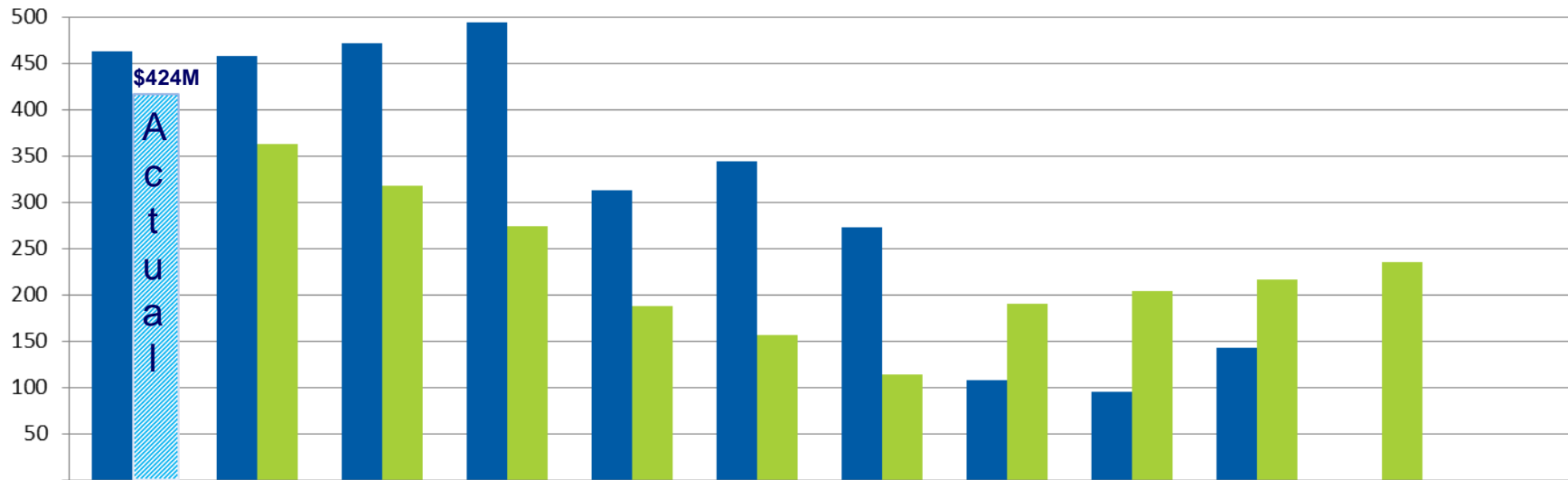
Building Energy Studies

\$2.4M

\$2.3B 10-year capital plan with 70% related to growth

2015 to 2014 10-Year Capital Plan Comparison

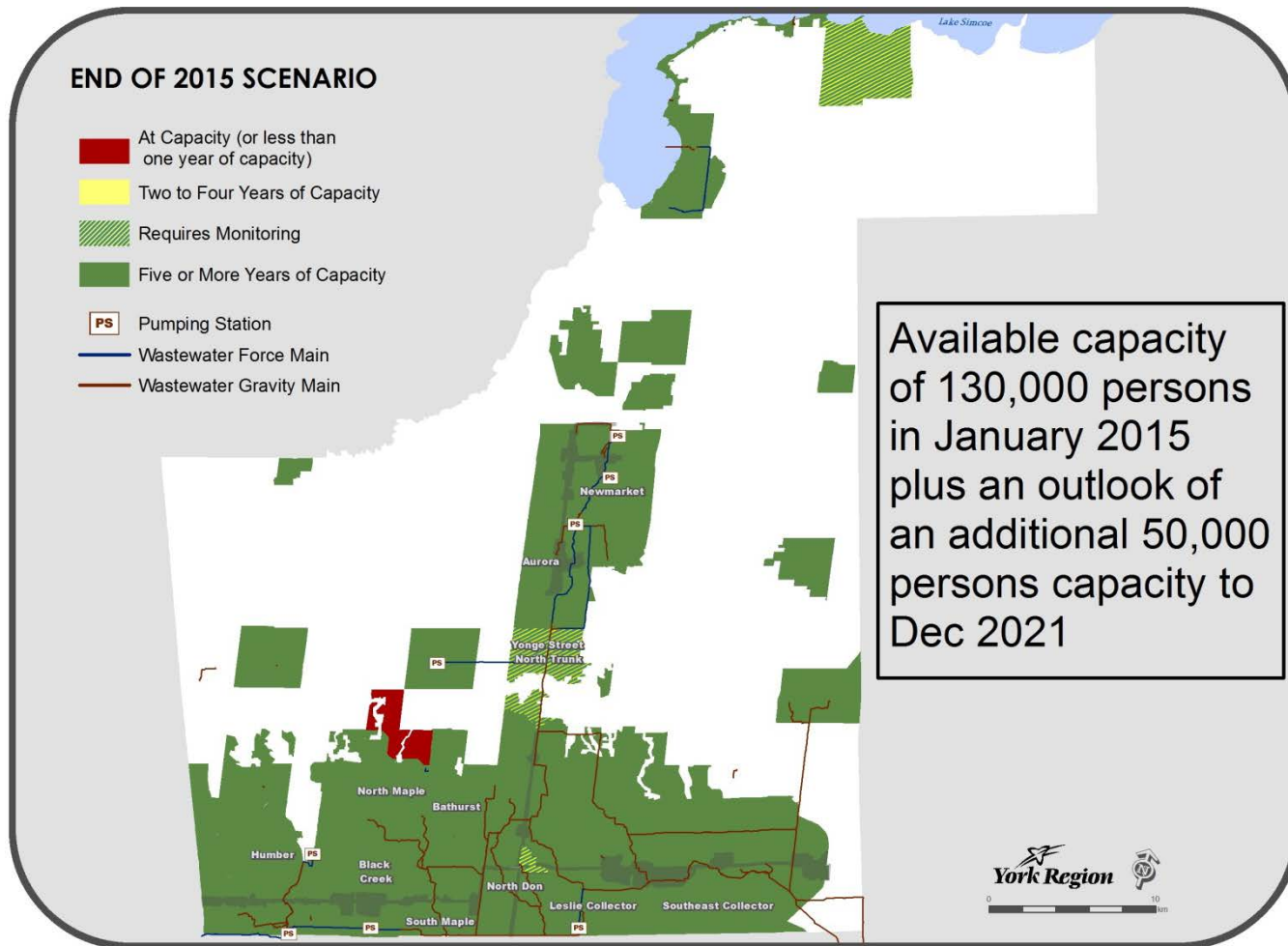
10 Year 2015 Budget Comparison to 2014 Budget (\$M)



| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|
| ■ 2014 Budget | 464 | 458 | 472 | 495 | 314 | 345 | 274 | 108 | 96 | 143 | - | 3,168 |
| ■ 2015 Budget | | 363 | 318 | 275 | 188 | 157 | 114 | 191 | 204 | 217 | 235 | 2,262 |
| % Change | | (21)% | (33)% | (45)% | (40)% | (55)% | (58)% | 77% | 113% | 51% | | (29)% |
| Incr/(Decr) | (464) | (95) | (154) | (220) | (126) | (188) | (159) | 83 | 108 | 73 | 235 | (906) |

\$2.3B 10-year capital plan with over 140 projects in flight

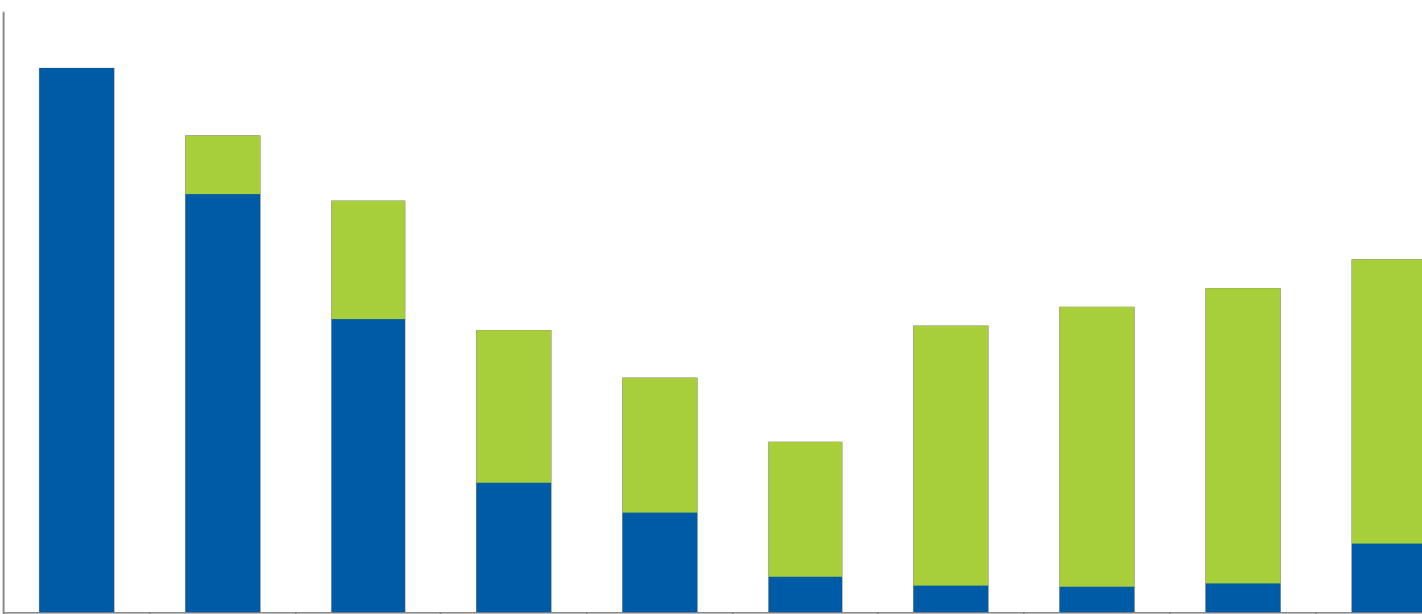
Available Servicing Capacity



2015 10-Year Capital Plan and Capital Spending Authority

\$ Million

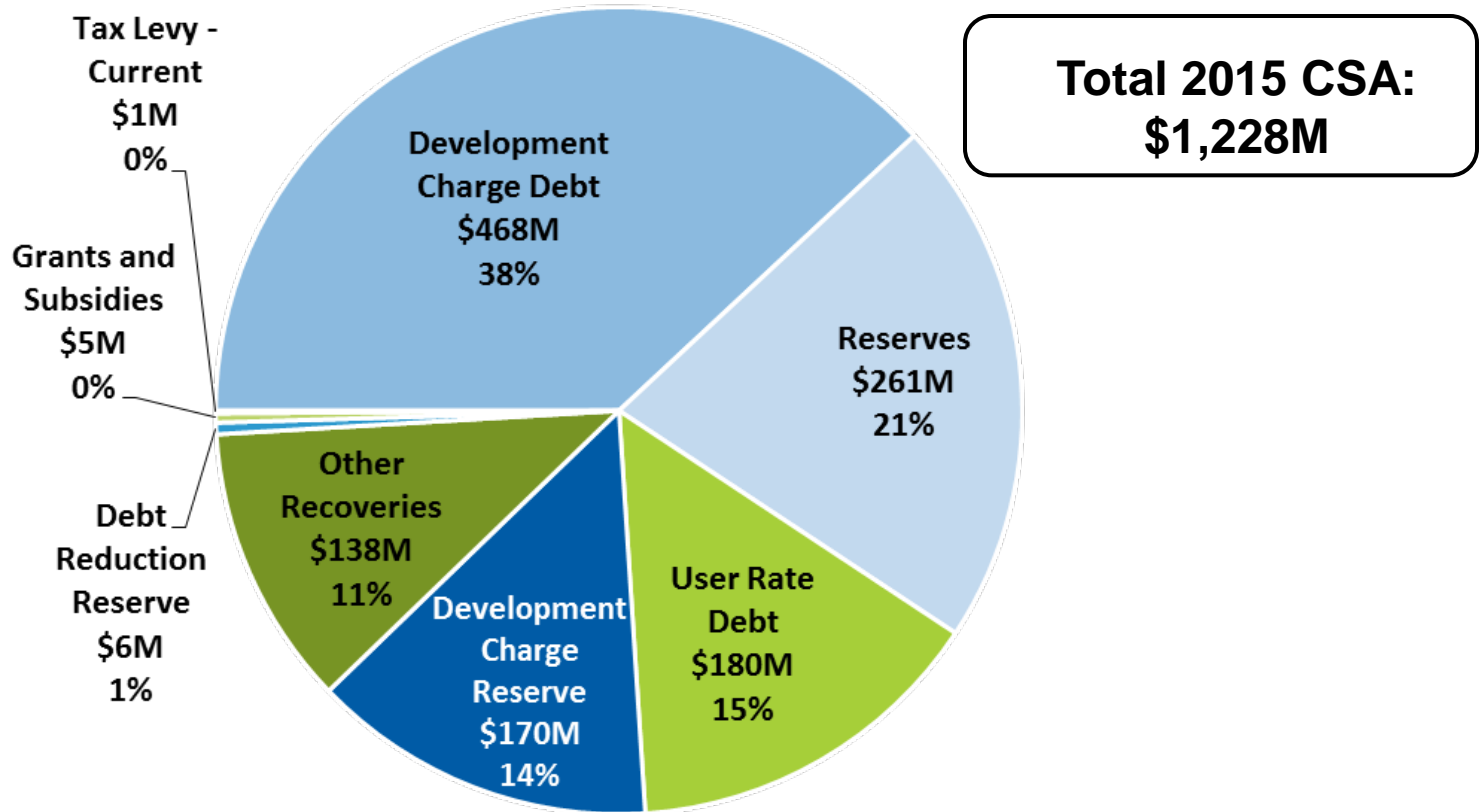
400
300
200
100
0



| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Total |
|---------|------|------|------|------|------|------|------|------|------|------|-------|
| Total | 363 | 318 | 275 | 188 | 157 | 114 | 191 | 204 | 217 | 235 | 2,262 |
| Non-CSA | - | 39 | 79 | 101 | 90 | 90 | 173 | 186 | 197 | 189 | 1,144 |
| CSA | 363 | 279 | 196 | 87 | 67 | 24 | 19 | 18 | 20 | 46 | 1,118 |

Over 49% of our 10-year capital plan covered by multi-year CSA

2015 Capital Spending Authority

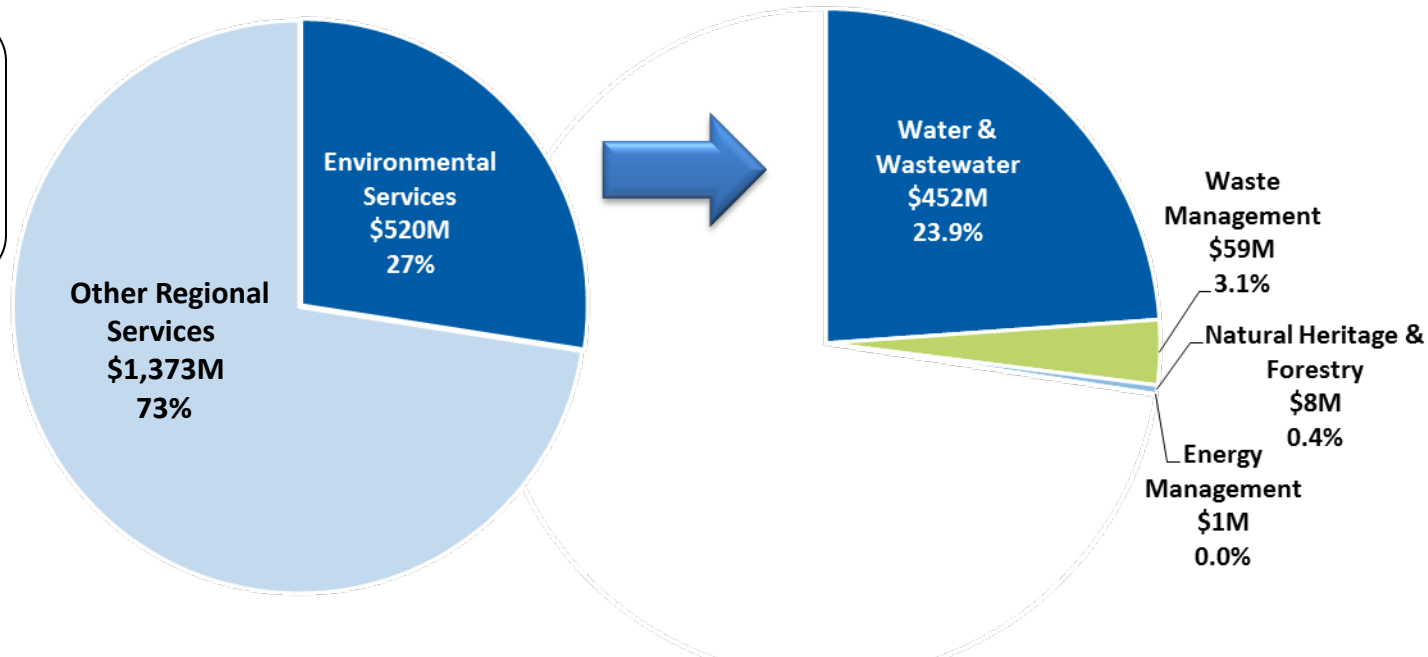


53% of requested CSA financed through debentures and 21% through reserves

3 OPERATING

2015 Gross Operating Expenditures

**York Region
2015 Gross
Operating
Expenditures:
\$1,892.9M**



| \$ Million | 2015 | 2016 | 2017 | 2018 |
|---------------------------------|------------|------------|------------|------------|
| Water & Wastewater | 452 | 472 | 490 | 512 |
| Waste Management | 59 | 61 | 63 | 65 |
| Natural Hertiage & Forestry | 8 | 9 | 9 | 9 |
| Energy Management | 1 | 1 | 1 | 1 |
| Total Gross Expenditures | 520 | 542 | 562 | 586 |

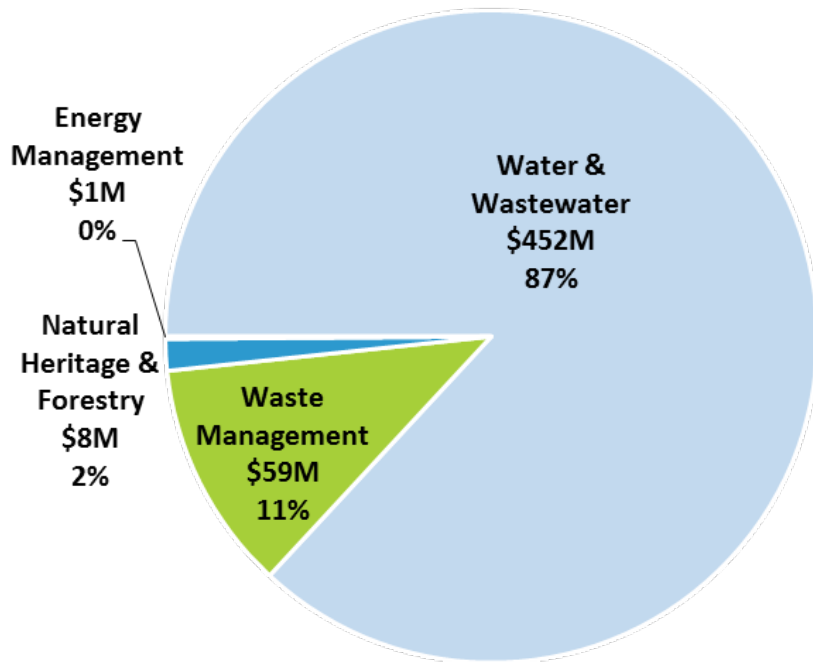
2015 - 2018 Operating Budget Summary

| (\$ in Millions) | 2014 Approved | 2015 Proposed | 2016 Outlook | 2017 Outlook | 2018 Outlook |
|---|------------------|------------------|-----------------|-----------------|-----------------|
| Gross Expenditures | 506.8 | 519.9 | 542.1 | 562.1 | 586.3 |
| Non-Tax Revenues | 457.7 | 471.0 | 491.4 | 509.6 | 532.3 |
| Net Expenditures | 49.1 | 48.9 | 50.7 | 52.5 | 54.0 |
| Net Expenditures Increase/(Decrease) | | (0.5%) | 3.7% | 3.5% | 2.8% |

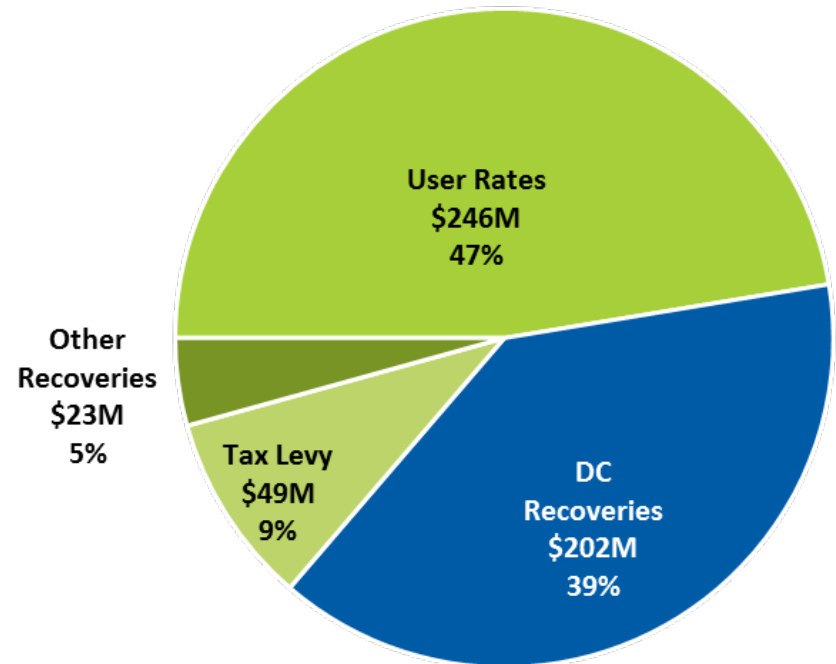
**Complex infrastructure creates cost and resource pressures
on existing operating programs**

2015 Operating Budget Overview

GROSS EXPENDITURES
\$520 Million

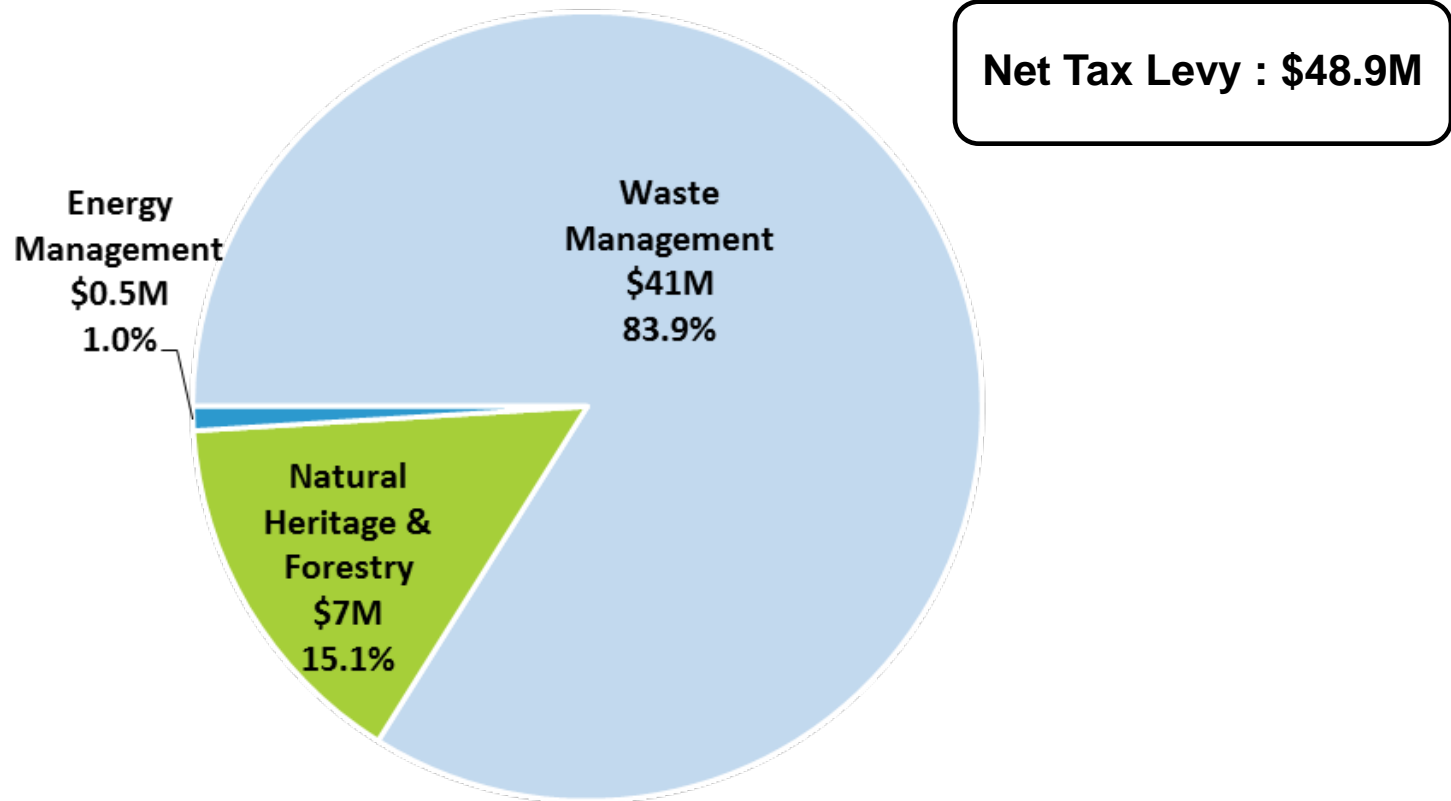


GROSS REVENUES
\$520 Million



Only 9% of Environmental Services budget recovered through tax levy

Elements of the 2015 Net Tax Levy Budget



0.5% reduction from 2014 approved budget

2015 - 2018 Environmental Operating Budget Changes

| (\$ in Millions) | 2015 Proposed | 2016 Outlook | 2017 Outlook | 2018 Outlook |
|--|---------------|--------------|--------------|--------------|
| Prior Year Gross Operating Budget | 506.8 | 519.9 | 542.1 | 562.1 |
| Base Adjustment | 4.6 | 7.8 | 19.1 | 57.8 |
| Efficiencies & Program Reductions | (4.1) | (0.1) | (0.2) | (0.0) |
| Impact of Capital | 12.2 | 12.4 | (0.7) | (35.4) |
| Growth & Service Enhancements | 0.4 | 2.1 | 1.8 | 1.8 |
| Total Budget Change | 13.1 | 22.2 | 20.0 | 24.2 |
| Proposed Gross Operating Budget | 519.9 | 542.1 | 562.1 | 586.3 |

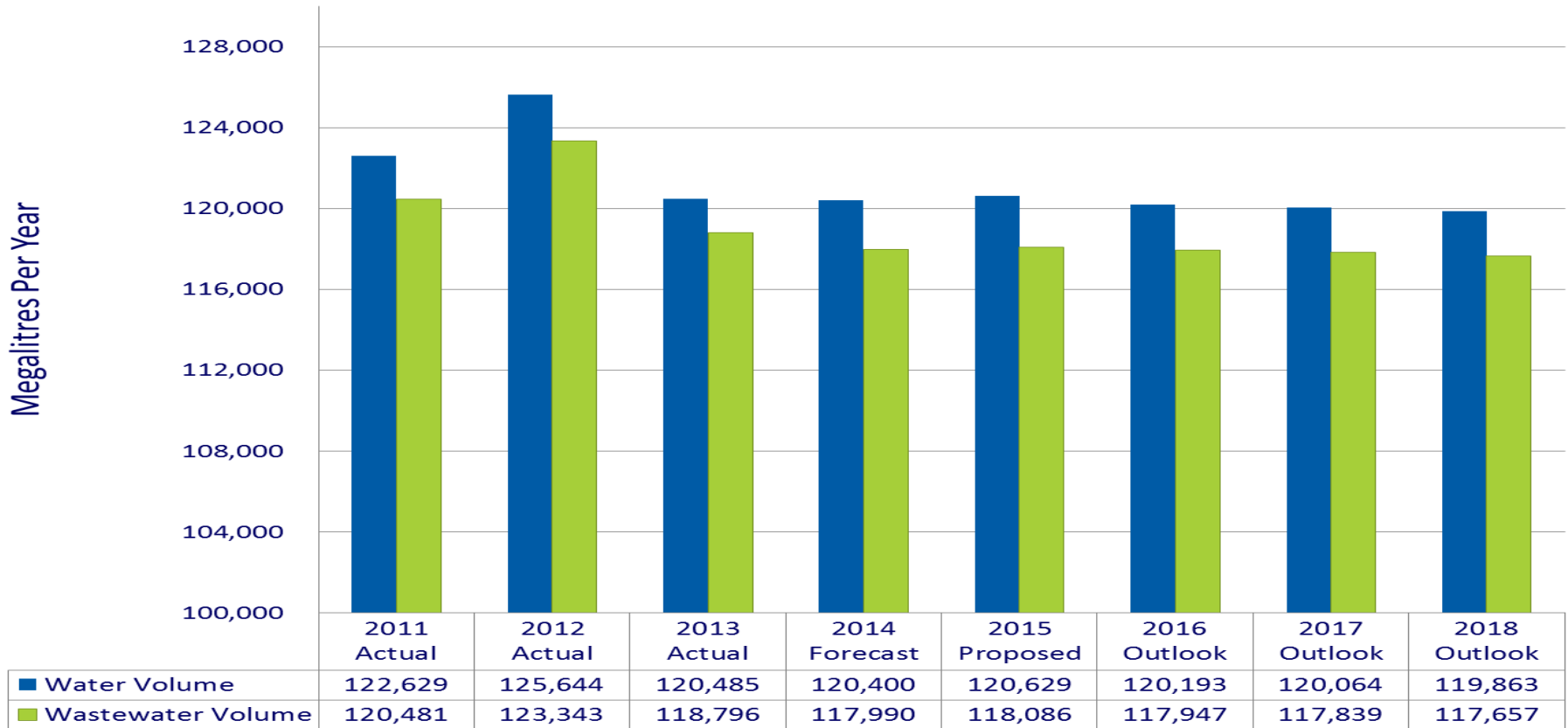
Realizing over \$4M in efficiencies and program reductions to offset increased financing and purchased service costs

2015 - 2018 Water & Wastewater Operating Changes

| (\$ in Millions) | 2015 Proposed | 2016 Outlook | 2017 Outlook | 2018 Outlook |
|--|---------------|--------------|--------------|--------------|
| Prior Year Gross Operating Budget | 437.1 | 451.8 | 471.7 | 489.5 |
| Base Adjustment | 6.4 | 6.8 | 17.7 | 56.5 |
| Efficiencies & Program Reductions | (3.7) | (0.0) | (0.0) | (0.0) |
| Impact of Capital | 12.1 | 12.0 | (0.7) | (35.2) |
| Growth & Service Enhancements | (0.1) | 1.1 | 0.9 | 1.0 |
| Total Budget Change | 14.7 | 19.9 | 17.9 | 22.3 |
| Proposed Gross Operating Budget | 451.8 | 471.7 | 489.5 | 511.9 |

Balancing operational excellence today while investing for growth tomorrow

Water & Wastewater Demand History & Outlook



Total volume expected to remain relatively constant as population growth is offset by declining consumption per capita

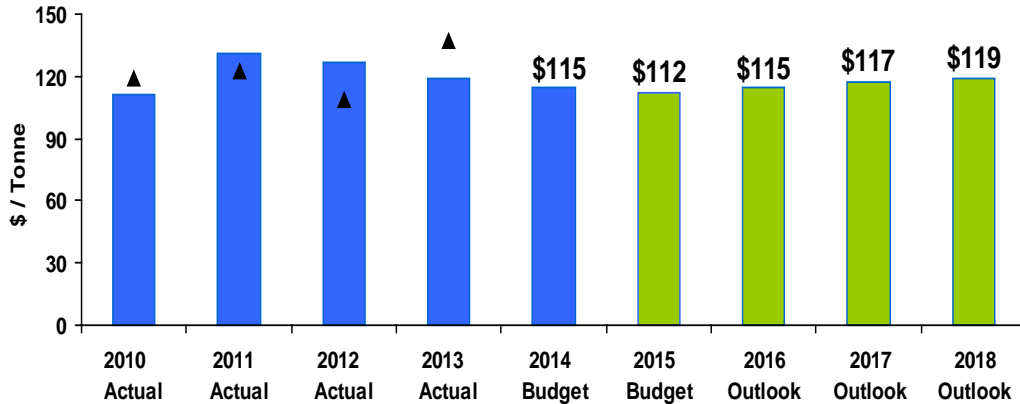
2015 - 2018 Waste Management Operating Changes

| (\$ in Millions) | 2015 Proposed | 2016 Outlook | 2017 Outlook | 2018 Outlook |
|--|---------------|--------------|--------------|--------------|
| Prior Year Gross Operating Budget | 62.1 | 59.3 | 61.1 | 63.1 |
| Base Adjustment | (2.4) | 1.0 | 1.3 | 1.3 |
| Efficiencies & Program Reductions | (0.4) | 0.0 | 0.0 | 0.0 |
| Impact of Capital | (0.2) | 0.0 | 0.0 | 0.0 |
| Growth & Service Enhancements | 0.2 | 0.8 | 0.7 | 0.6 |
| Total Budget Change | (2.8) | 1.8 | 2.0 | 1.9 |
| Proposed Gross Operating Budget | 59.3 | 61.1 | 63.1 | 65.0 |

Overall increases a result of CPI and growth related projects

Waste Management Disposal and Diversion Costs per Tonne

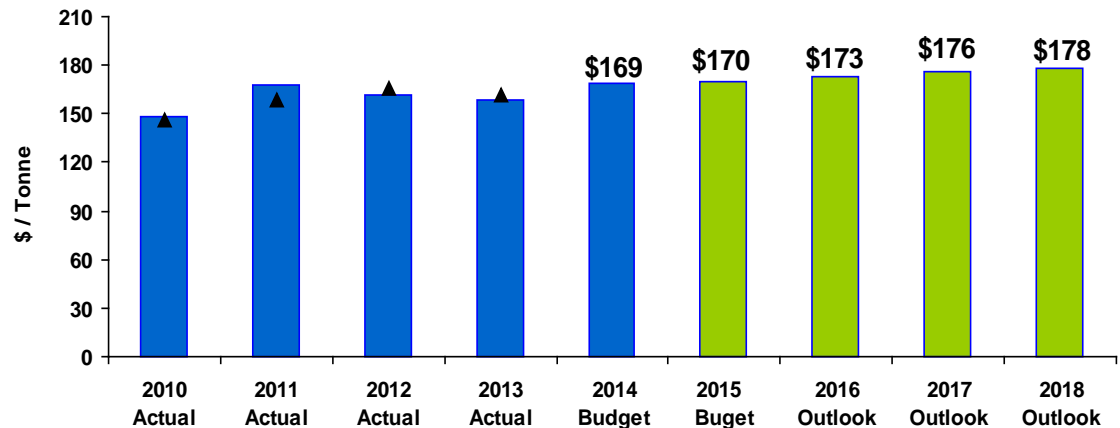
Disposal Cost Per Tonne



Disposal cost per tonne consistently decreasing since 2011

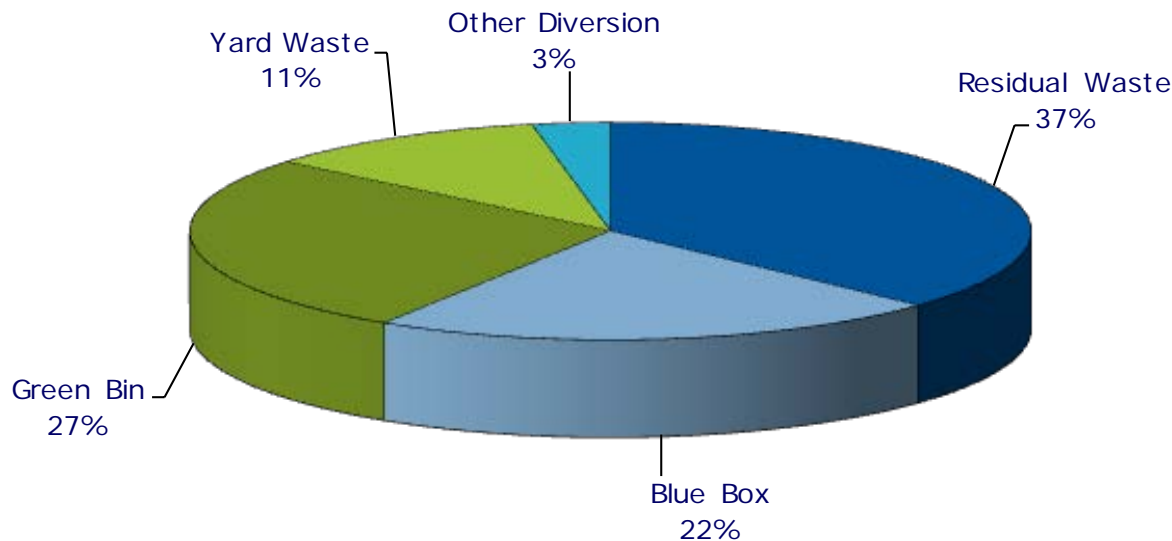
Outlook increases primarily due to CPI on contracted services

Diversion Cost Per Tonne



Waste Diversion Ontario (WDO) Diversion Rates

UNVERIFIED WDO DIVERSION (2013) 59%



| Year | Ranking | WDO Diversion Rate |
|------|---------|--------------------|
| 2007 | 1st | 46% |
| 2008 | 1st | 53% |
| 2009 | 1st | 57% |
| 2010 | 2nd | 53% |
| 2011 | 2nd | 54% |
| 2012 | 1st | 57% |
| 2013 | N/A | 59% Unverified |
| 2014 | N/A | 63% Forecasted |
| 2015 | N/A | 62% Budgeted |

York to deliver 62% diversion target in 2015

2015 - 2018 Forestry Operating Changes

| (\$ in Millions) | 2015 Proposed | 2016 Outlook | 2017 Outlook | 2018 Outlook |
|--|------------------|-----------------|-----------------|-----------------|
| Prior Year Gross Operating Budget | 7.0 | 8.1 | 8.7 | 8.9 |
| Base Adjustment | 0.6 | 0.0 | 0.2 | 0.0 |
| Efficiencies & Program Reductions | 0.0 | 0.0 | (0.2) | 0.0 |
| Impact of Capital | 0.2 | 0.4 | 0.0 | (0.2) |
| Growth & Service Enhancements | 0.3 | 0.2 | 0.2 | 0.1 |
| Total Budget Change | 1.1 | 0.6 | 0.2 | (0.1) |
| Proposed Gross Operating Budget | 8.1 | 8.7 | 8.9 | 8.8 |

Emerald Ash Borer tree removal and VivaNext maintenance costs create operating pressures

2015 - 2018 Energy Management Operating Changes

| (\$ in Millions) | 2015 Proposed | 2016 Outlook | 2017 Outlook | 2018 Outlook |
|--|---------------|--------------|--------------|--------------|
| Prior Year Gross Operating Budget | 0.60 | 0.61 | 0.61 | 0.62 |
| Base Adjustment | 0.01 | 0.01 | 0.01 | 0.01 |
| Efficiencies & Program Reductions | 0.00 | (0.01) | 0.00 | 0.00 |
| Total Budget Change | 0.01 | 0.00 | 0.01 | 0.01 |
| Proposed Gross Operating Budget | 0.61 | 0.61 | 0.62 | 0.63 |

Overall increases a result of salaries and benefits

4 BUDGET HIGHLIGHTS

2015 - 2018 Budget at a Glance

| | 2015 | 2016 | 2017 | 2018 |
|----------------------------|--------|------|------|------|
| Proposed Net Budget Change | (0.5)% | 3.7% | 3.5% | 2.8% |
| Staffing Changes | 19 | 19 | 19 | 18 |

| | |
|-------------------------------|---------|
| Net Operating Budget for 2015 | \$48.9M |
| Capital Budget for 2015 | \$363M |
| 10-Year Capital Plan | \$2.3B |

Mitigating Budget Impacts

- Over \$4M of efficiencies in 2015 budget to minimize impact of reduced revenue and impacts of operating capital
- Continued focus on continuous improvement to identify potential further operational efficiencies
- Delivering services through strong partnerships with our local municipalities
- Innovative ideas and analytics to better leverage current and future resources

Embracing resilience as new sustainability

5 NEXT STEPS

Council / Committee Review Process



Budget Recommendation

1. The Committee of the Whole recommends the submitted budget as follows:
 - a) The 2015 operating budget and the outlook for 2016 to 2018, as summarized in Attachment 1 of the Committee of the Whole, 2015 – 2018 Budget Environmental Services Report.
 - b) Capital Spending Authority, as summarized in Attachment 2 of the Committee of the Whole, 2015 – 2018 Budget Environmental Services Report.
2. That the recommended budget be consolidated by the Treasurer for approval by Council on February 26, 2015.

Key Budget Drivers Addressed



Striving to ensure our residents are better off

