



PUBLIC WORKS 2024 BUDGET

Presented to
Committee of the Whole

Presented by
Michelle Swan and Mike Rabeau

Presented on
November 30, 2023



Agenda

- Public Works Overview
- Highlights of 2024 to 2026 Budget
- Alignment with 2023 to 2027 Strategic Plan
- Public Works – Environmental Services
- Public Works – Transportation Services





Highlights of Public Works' 2024 Budget



Transit ridership recovery faster than previously projected



Establish an automated enforcement processing centre



\$8.1M in cumulative efficiencies/enhanced revenue sources included in 2024-2026 budget



\$8.6B 10-year capital plan balances growth (\$5.2B) and rehabilitation and replacement (\$3.4B)



ECONOMIC VITALITY



HEALTHY COMMUNITIES



SUSTAINABLE ENVIRONMENT



GOOD GOVERNMENT

Public Works budget supports 2023 to 2027 Strategic Plan

Key Priorities Over the Multi-Year Budget



Providing efficiency and value for money



Driving innovation in service delivery including traveller safety



Integrating capital delivery growth and rehabilitation and replacement projects



Addressing complex legislative and accountability reporting requirements



Returning transit ridership back to pre-pandemic levels and electrifying transit fleet



Continuing work with Province to advance Yonge North Subway Extension and advocating for Bus Rapid Transit funding



Expanding street trees and forestry portfolio



Preparing for Blue Box transition

Budget Highlights



ECONOMIC
VITALITY

PRIORITY: FOSTER ECONOMIC PROSPERITY

- Delivering proposed \$8.6B 10-year capital program
- Partnering with Province to advance Yonge North Subway Extension



HEALTHY
COMMUNITIES

PRIORITY: SUPPORT COMMUNITY WELL-BEING

- Delivering 123 billion litres of clean and safe drinking water to protect public health
- Addressing climate change through Corporate Climate Change Action Plan helps build community resilience and promotes well-being



SUSTAINABLE
ENVIRONMENT

PRIORITY: DRIVE ENVIRONMENTAL STEWARDSHIP

- Implementing Council-approved Transit and Fleet Electrification Plan
- Maintaining high rates of waste diversion
- Promoting reduction and reuse initiatives
- Partnering with others to enhance cycling and walking options
- Planting over 70,000 trees and shrubs in 2024



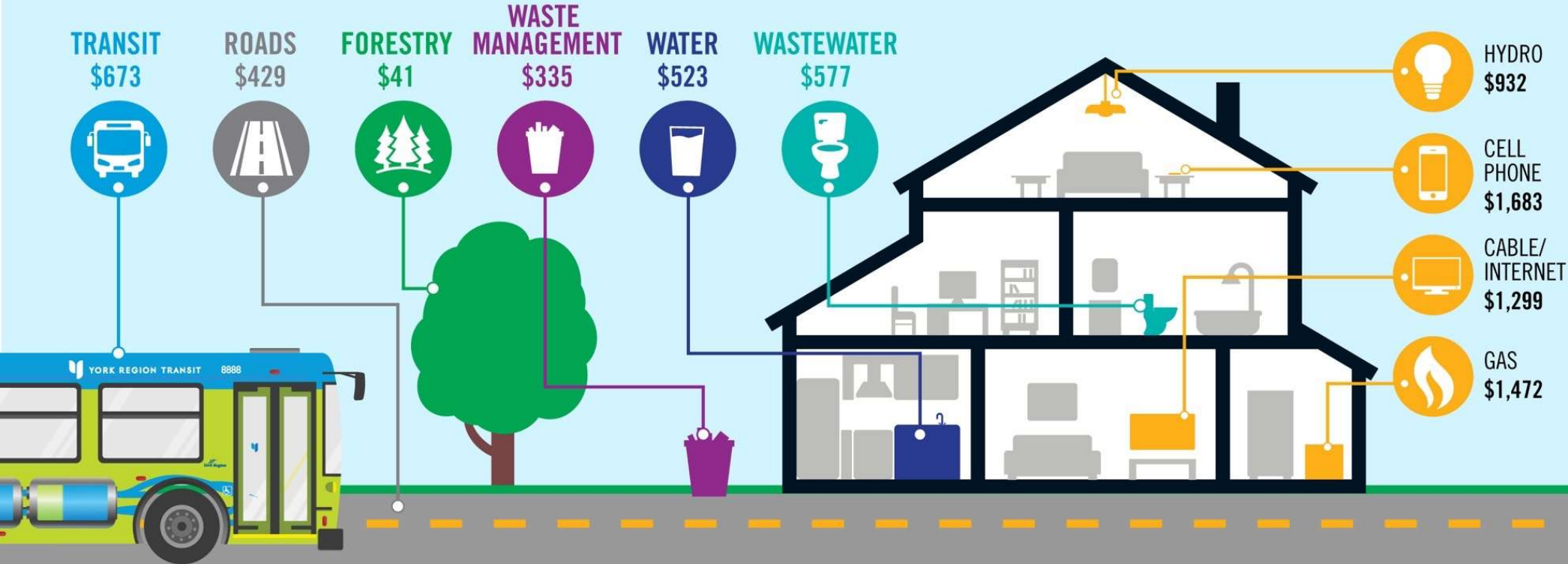
GOOD
GOVERNMENT

PRIORITY: EFFICIENTLY DELIVER TRUSTED SERVICES

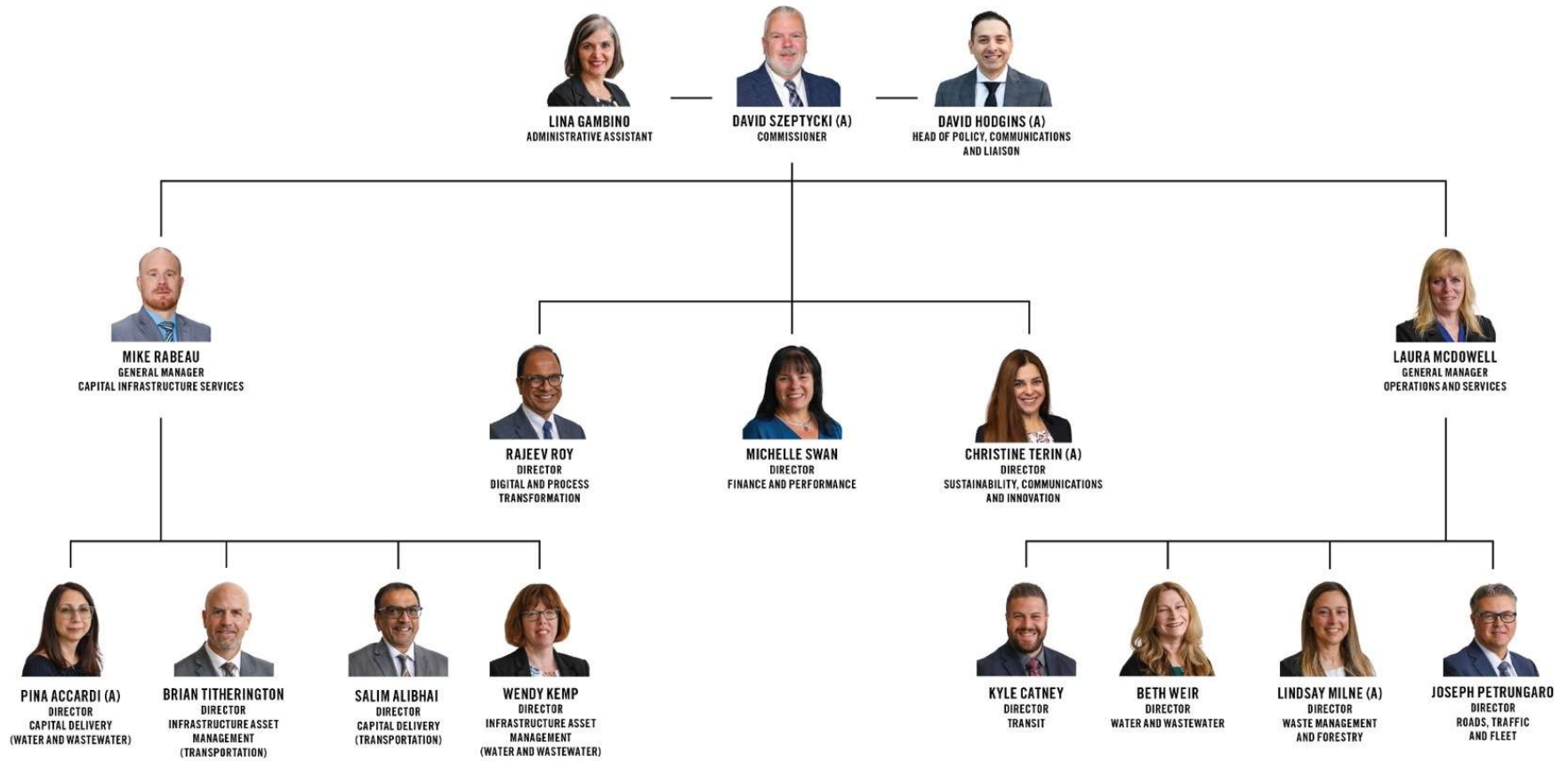
- Maintaining a safe and efficient road network and transit system
- Meeting traveller needs of today and the future

Ensuring Value For Money For Residents

Public Works services represent less than half of other annual household utility costs



Organizational Chart





PUBLIC WORKS - ENVIRONMENTAL SERVICES

Elevated Tank, Town of Newmarket



OPERATING BUDGET

Aurora East Elevated Tank, Town of Aurora

Leveraging Private and Public Sector Expertise in Delivery

WASTE



82%

of direct costs are
third party contracts

FORESTRY



64%

of direct costs are
contracted services for
planting, maintenance
and partnerships

WATER/WASTEWATER



51%

of direct costs are
purchased water
and treatment

Driving Innovation in Service Delivery



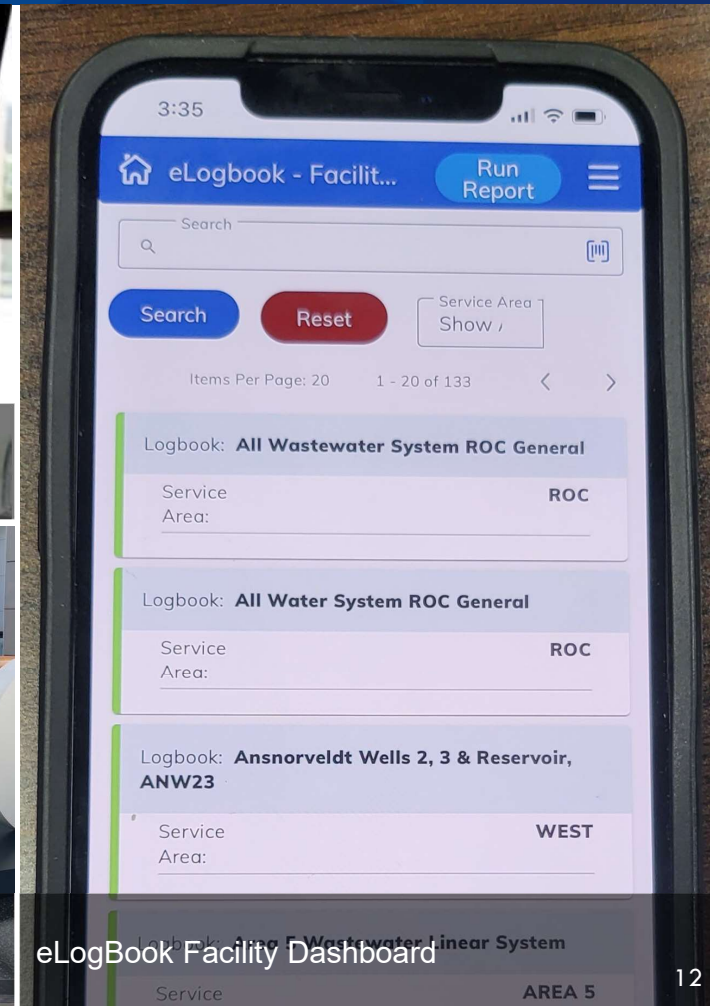
Reinforcing the York-Peel feedermain with a lining of carbon fibre cloth



Interactive dashboard from Machine Learning Model

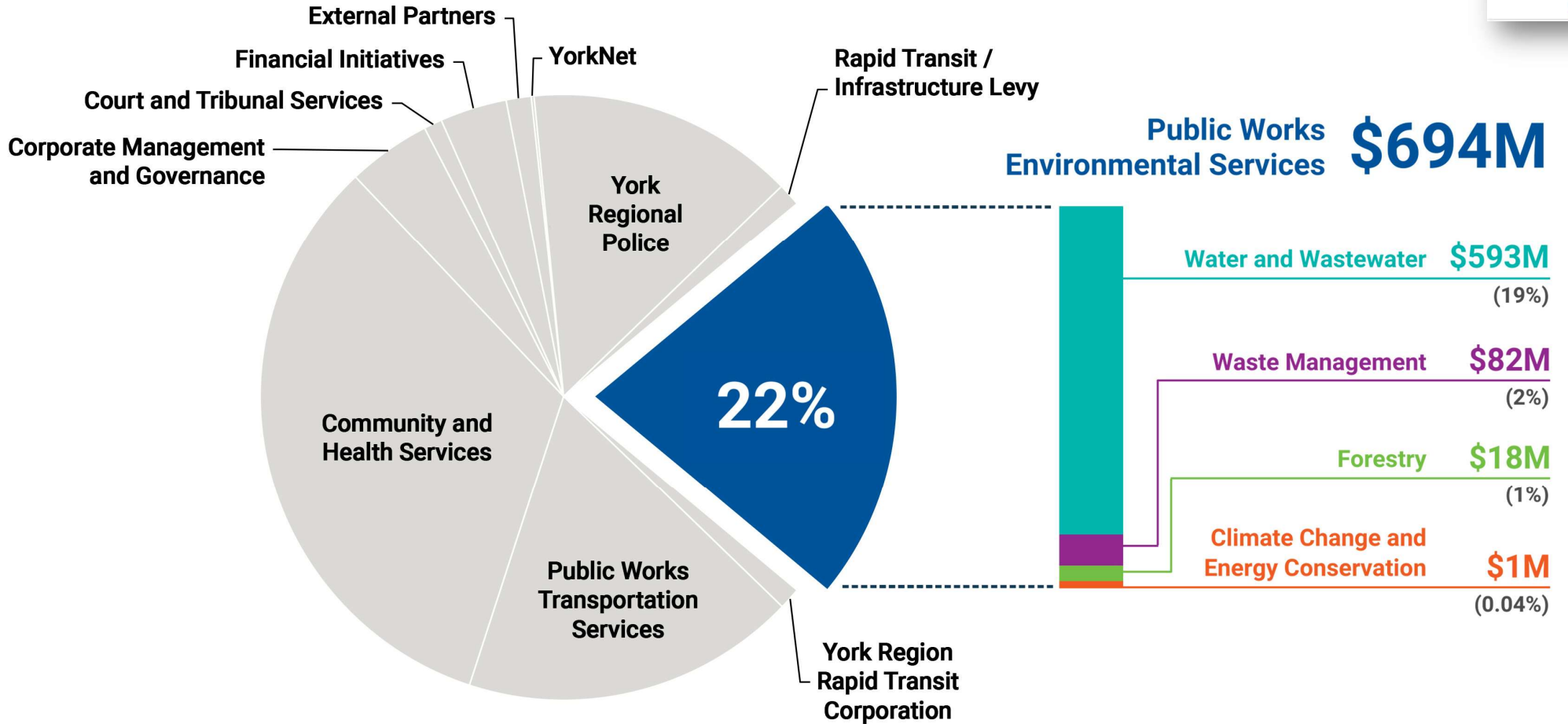


Award-winning Inflow and Infiltration Machine Learning Model

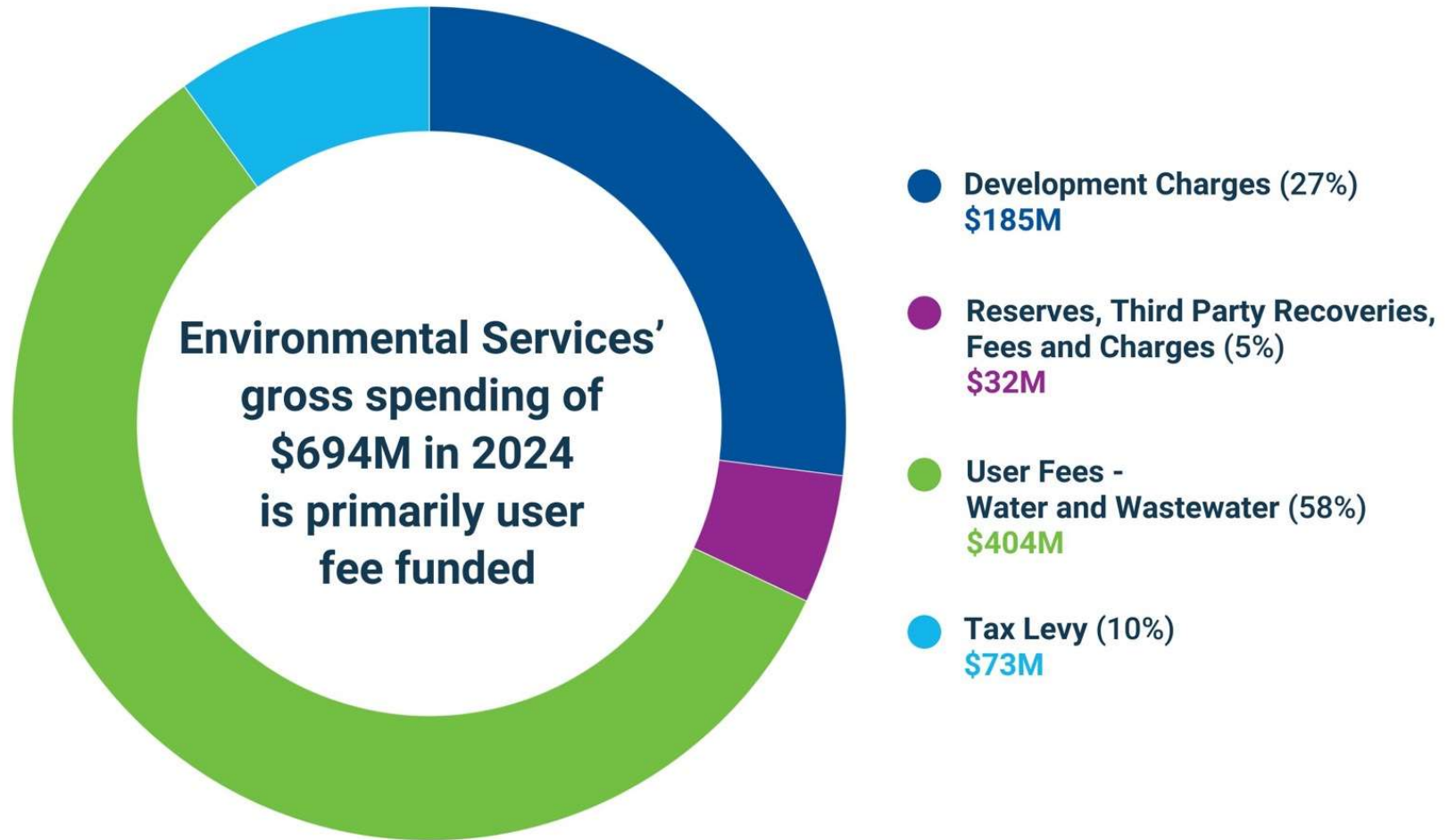


eLogBook Facility Dashboard

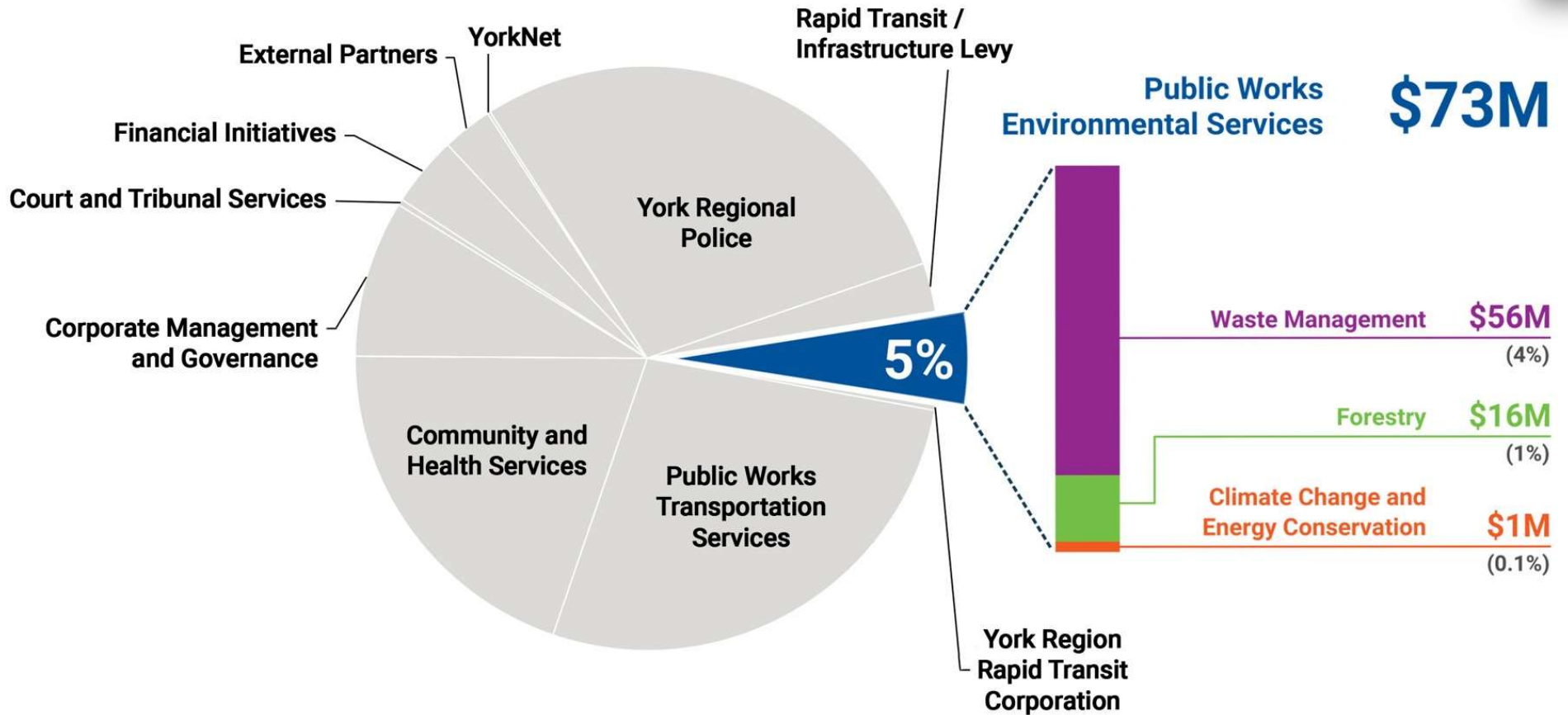
Environmental Services' Budget is 22% of the Region's Expenditures



Budget is Funded Through Tax and Non-Tax Revenues



Environmental Services' Budget is 5¢ of Region's Tax Dollar



Operating Budget at a Glance

(in \$M)	APPROVED	PROPOSED	OUTLOOK	
	2023	2024	2025	2026
Proposed Budget (Net)	61.3	73.2	69.2	64.1
Total Budget Change		11.9	(3.9)	(5.1)
Restated Outlook		63.8	67.6	71.2
Increase / (Decrease) from Outlook		14.7%	2.5%	-9.9%

2024 Budget Change Highlights

Expenditures

- Increasing contractor costs and inflationary increases **\$17.0M ↑**
- Increase in contributions to capital replacement reserves **\$9.1M ↑**

Revenues

- Increase in Water & Wastewater revenues **\$11.2M ↑**

Efficiencies

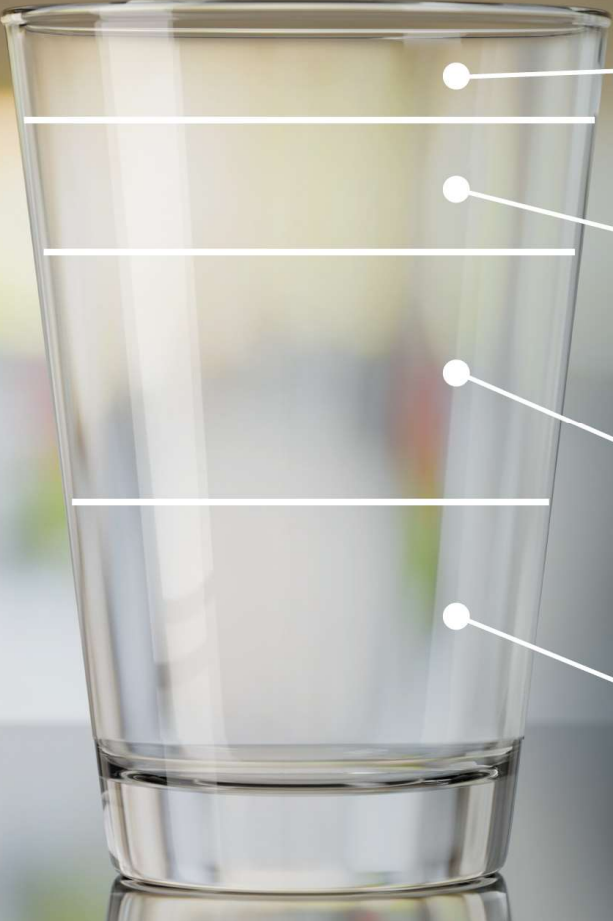
- Rationalizing budget to better reflect expected spending **\$3.0M ↑**



Georgina Water Treatment Plant, Town of Georgina

Water and Wastewater Costs

**TOTAL
\$593M**



\$79M OPERATING EXPENDITURES

Maintaining infrastructure, running equipment and employing highly-trained staff

\$106M PURCHASED SERVICES

Purchasing over 90% of our water from Toronto and Peel, and treating wastewater at Duffin Creek and Peel

\$199M FINANCING COSTS

Paying principal and interest on money borrowed to build multi-billion dollar capital program

\$209M CONTRIBUTION TO RESERVES

Reserves ensure money is available to repair our assets and provide high level regulated services

Ensuring Affordable Water

Spending \$1 on water either gets you:

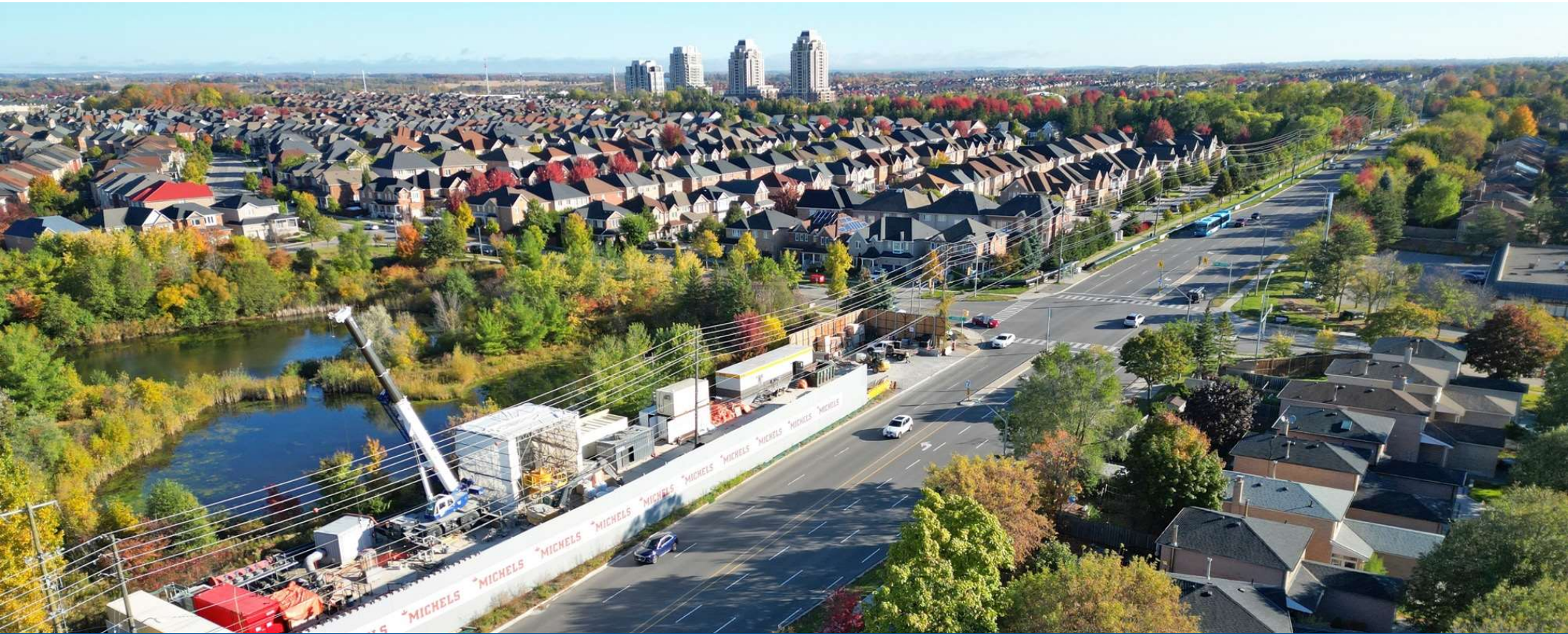


1
plastic
bottle
of water

OR



590
refills
from
your tap



CAPITAL BUDGET

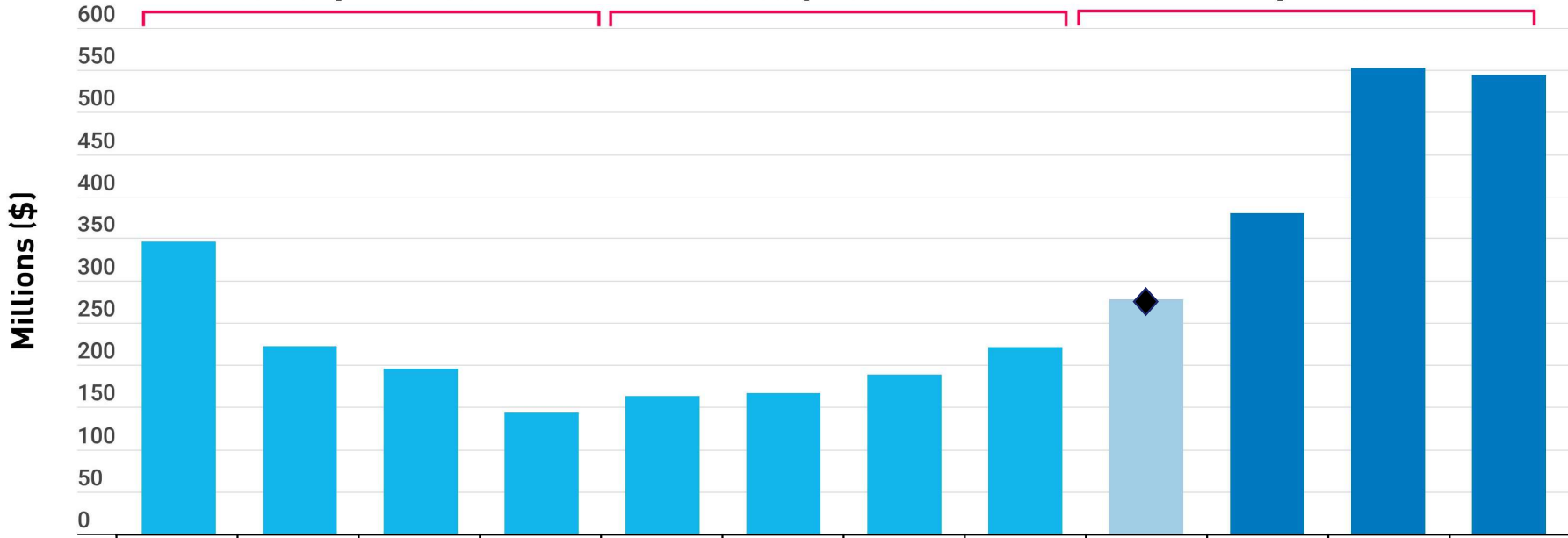
16th Avenue Sewer Rehabilitation, City of Markham

Environmental Services' Capital Investment

TOTAL \$905 Million

TOTAL \$739 Million

TOTAL \$1.8 Billion



	2015 Actual	2016 Actual	2017 Actual	2018 Actual	2019 Actual	2020 Actual	2021 Actual	2022 Actual	2023 Forecast	2024 Budget	2025 Budget	2026 Budget
Actual/Budget	\$346M	\$222M	\$195M	\$143M	\$163M	\$167M	\$188M	\$221M	\$281M	\$380M	\$553M	\$545M
Forecast									\$280M			

Capital Budget at a Glance

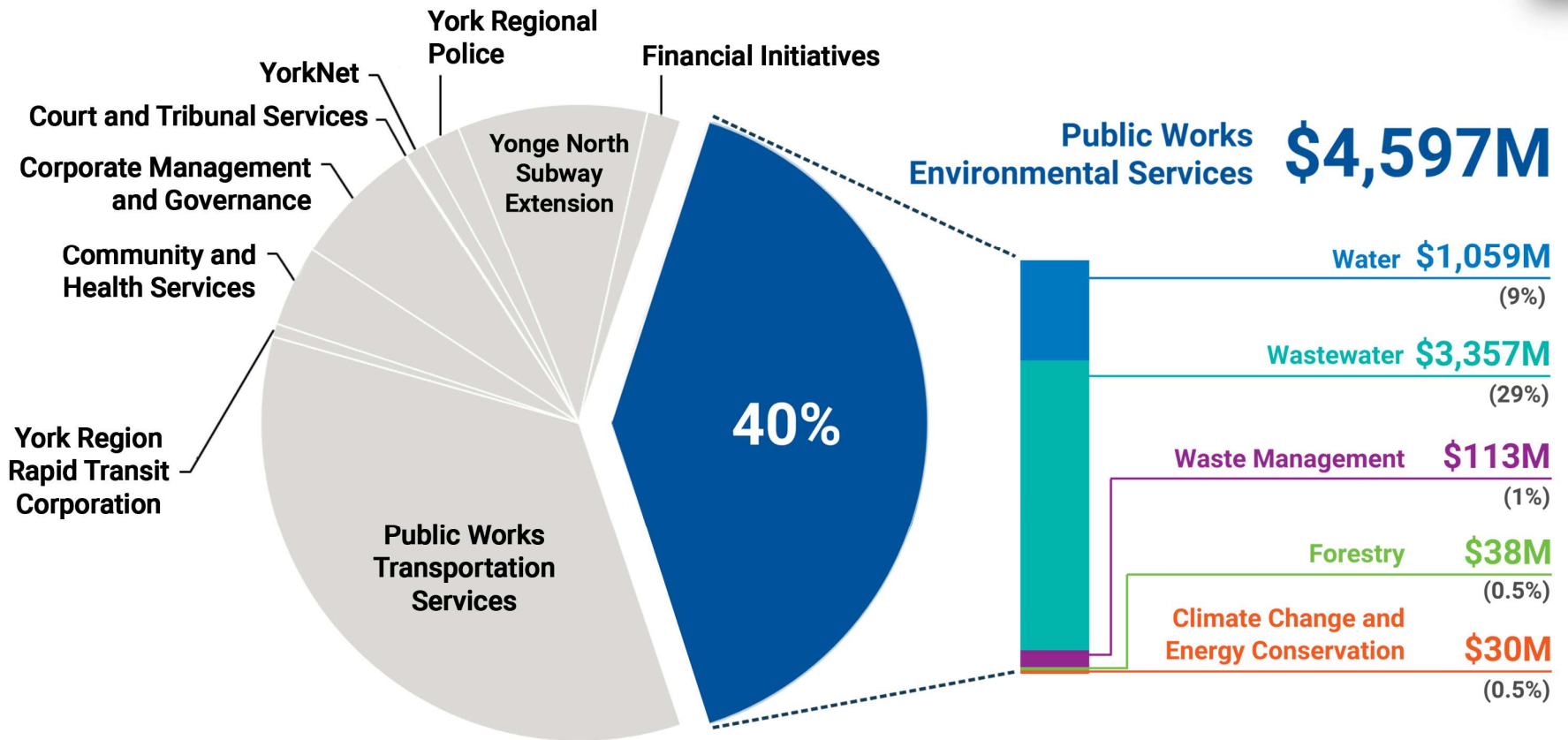
Capital Budget	Millions (\$)
2024 Capital	380.3
10-Year Capital Plan	4,596.7
Capital Spending Authority	2,317.9



Keswick Sewage Pumping Station Upgrades, Town of Georgina

North Maple Reservoir Construction, City of Vaughan

10-Year Capital Plan is 40% of Region's Plan



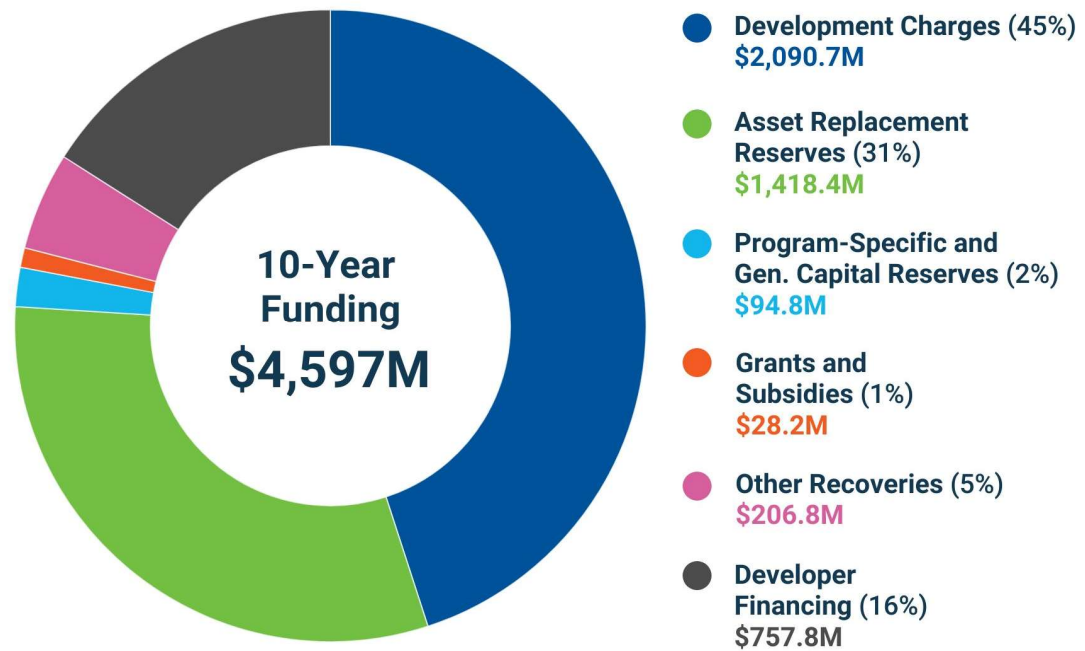
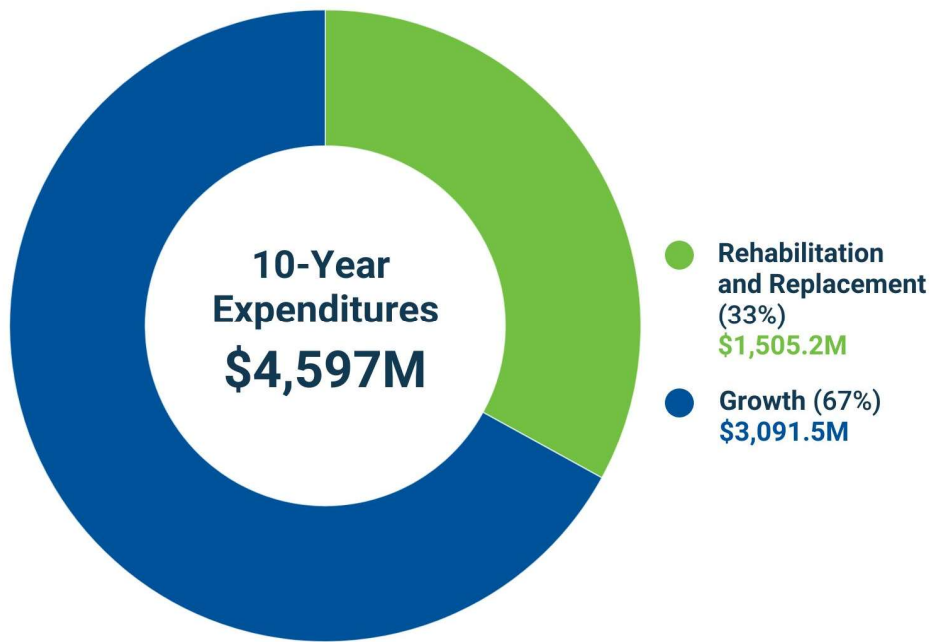
2024 Proposed 10-Year Capital Plan



- Wastewater (73%)
\$3,357M
- Water (23%)
\$1,059M
- Waste (2%)
\$113M
- Forestry (1%)
\$38M
- Climate Change and Energy (1%)
\$30M

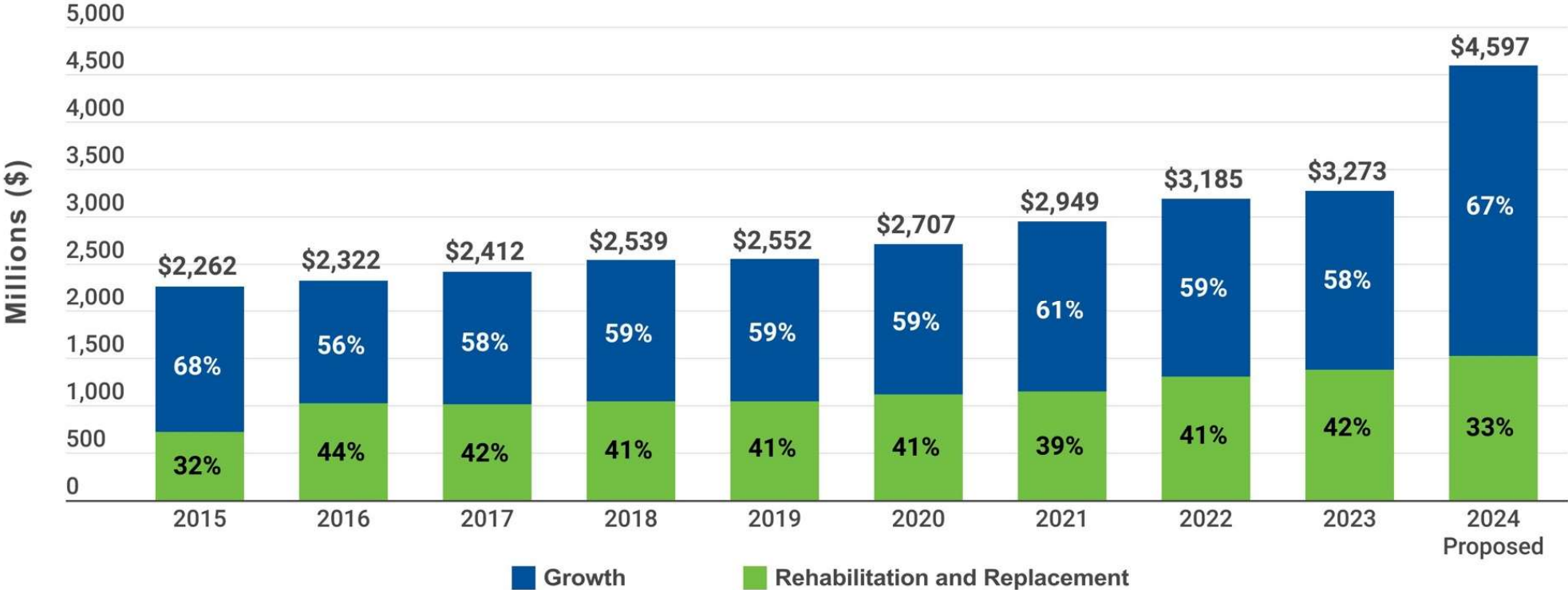
Environmental Services is 53% of Public Works' capital spending

Capital Expenditures and Funding



2024 Capital Plan By Category

Environmental Services' 2024 10-year capital plan is \$4,597M, of which 67% is for growth and 33% is for rehabilitation and replacement



Key Deliverables in 10-year Capital Plan



WASTEWATER

WATER

WASTE

FORESTRY

CLIMATE CHANGE AND ENERGY

**\$3,357M
Total**

**\$2,445M
Growth**

**\$912M
Rehabilitation
and
Replacement**

**\$1,059M
Total**

**\$495M
Growth**

**\$564M
Rehabilitation
and
Replacement**

**\$113M
Total**

**\$98M
Growth**

**\$15M
Rehabilitation
and
Replacement**

**\$38M
Total**

**\$35M
Growth**

**\$3M
Rehabilitation
and
Replacement**

**\$30M
Total**

**\$18M
Growth**

**\$12M
Rehabilitation
and
Replacement**

Major Program Changes as a Result of *Supporting Growth and Housing In York and Durham Regions Act, 2022*

Project	Total 10-Year Plan (\$M)		Increase / (Decrease)
	In 2023 Plan	In 2024 Plan	
Bloomington Road Bayview Avenue AC Watermain		101	101
North Markham Water Servicing	45	69	24
Newmarket West Water Servicing	4	56	52
Yonge Street Sewer Twinning	41		(41)
Duffin Creek Water Pollution Control Plant Primary System Growth Expansions	12	346	334
North YDSS Expansion Program Management		14	14
North YDSS Expansion Phase 1		501	501
North YDSS Expansion Phase 2		577	577
North YDSS Expansion Phase 3		16	16
Wastewater Servicing for Aurora, East Gwillimbury and Newmarket (formerly UYSS)	433		(433)
Total	535	1,680	1,145

2024 Proposed 10-Year Capital Plan Deliverables



GROWTH

- 55 km of sewer
- 35 km of watermain
- 3 new sewage pumping stations
- 2 new water pumping stations
- 5 new water storage facilities
- 8 wastewater facility expansions
- 5 water facility expansions

Henderson Pumping Station, Town of Aurora

2024 Proposed 10-Year Capital Plan Deliverables



REHABILITATION AND REPLACEMENT

- 22 km of watermain
- 15 km of sewer
- 10 km of forcemain
- 100+ chambers to be rehabilitated
- 7 surface water facility upgrades
- 3 water pumping stations upgrades
- 14 groundwater treatment facility upgrades
- 10 elevated tanks recoating and/or upgrades
- 5 in-ground storage reservoir rehabilitations
- 3 at-grade storage reservoir rehabilitations

Elevated Tank, Town of Newmarket

Summary of the Capital Budget

- \$4.6B 10-year capital plan balances growth and rehabilitation and replacement investments totaling 40% of Region's 10-year capital plan
- Includes North YDSS Expansion Phase 1-2 to accommodate the Lake Ontario solution mandated by the Supporting Growth and Housing in York and Durham Regions Act
- Supply chain disruptions, cost escalation, approvals risk, potential misalignment between pace of growth and infrastructure timing are being monitored and mitigated through various mitigation strategies

Budget Summary

- Cumulative efficiencies and enhanced revenue of \$6.3M
- 10-year capital plan of \$4.6B delivers key projects while balancing growth and rehabilitation and replacement
- Resource requests support continued service delivery excellence



ECONOMIC
VITALITY



HEALTHY
COMMUNITIES



SUSTAINABLE
ENVIRONMENT



GOOD
GOVERNMENT



Multi-Year Budget Overview

Operating Budget				
(in \$M)	APPROVED 2023	PROPOSED 2024	OUTLOOK	
			2025	2026
Gross Expenditures	665.2	694.4	717.9	720.3
Non-Tax Revenues	(603.9)	(621.2)	(648.7)	(656.2)
Net Tax Levy	61.3	73.2	69.2	64.1
FTEs - Total	501.3	518.6	534.6	547.6
- New		17.3	16.0	13.0
Capital Budget				
2024 Capital Expenditures				380.3
10-Year Capital Plan				4,596.7
Capital Spending Authority				2,317.9

Delivering Value For Money for \$4 per Day



Oak Ridges Air Management Facility construction, City of Richmond Hill



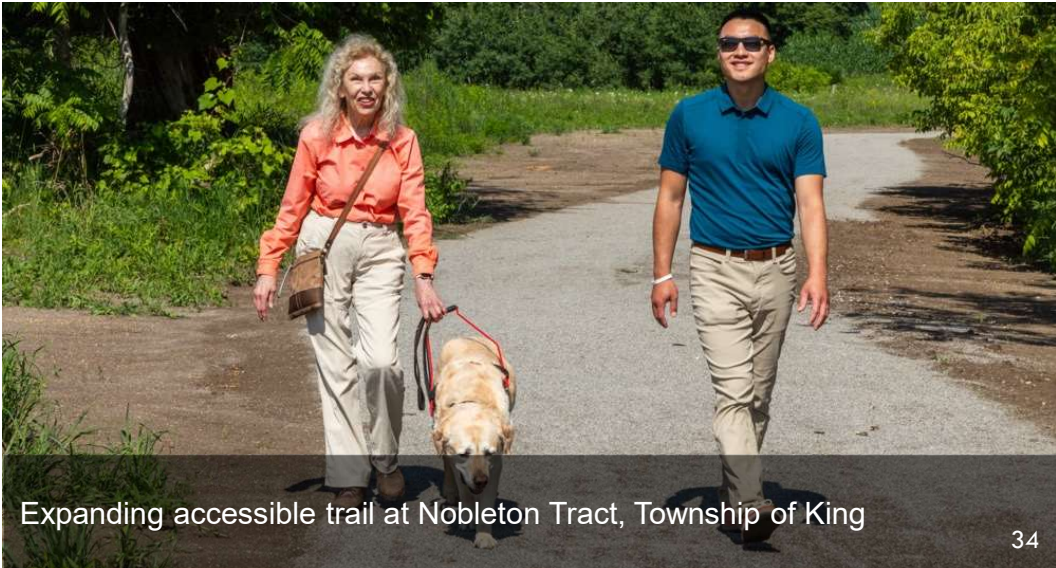
Delivering clean, safe drinking water



Reducing emissions through electrification



Elgin Mills Community Environmental Centre, City of Richmond Hill



Expanding accessible trail at Nobleton Tract, Township of King

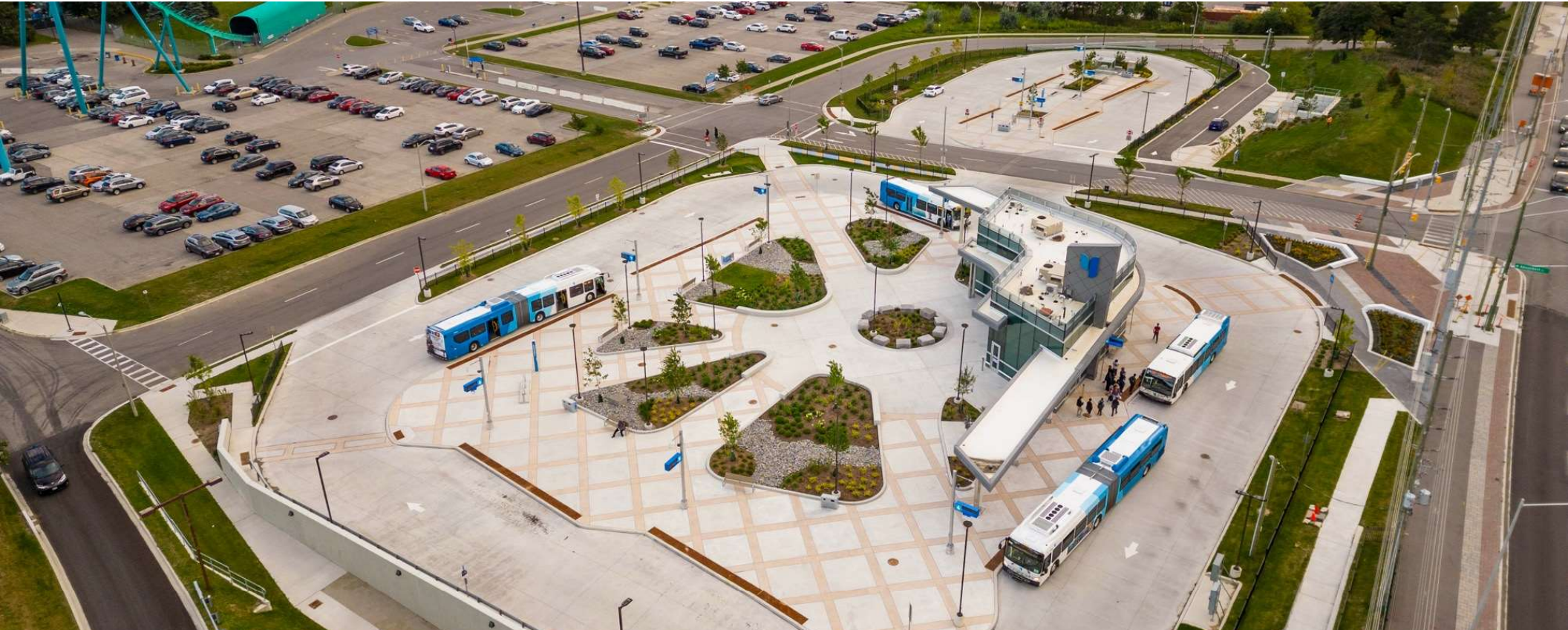
Budget Recommendations

1. Committee of the Whole recommends the budget as submitted for Public Works - Environmental Services as follows:
 - a. The 2024 operating budget and 2025 to 2026 operating outlook as summarized in Appendix A
 - b. The 2024 capital expenditures and Capital Spending Authority, as summarized in Appendix B
 - c. Accelerated Inclusion of Phases 2 and 3 for North YDSS (York Durham Sewage System) expansion project in the 10-year capital plan, in advance of inclusion in the next development charge bylaw update
 - d. That staff be directed to pursue senior government funding opportunities and developer prepaid agreements for Phases 2 and 3 for North YDSS
2. The recommended budget be consolidated by the Commissioner of Finance and Regional Treasurer for consideration by Council on December 21, 2023.
3. The Regional Solicitor be directed to prepare the necessary water and wastewater rate bylaws to incorporate the discounted wastewater rates reflected in the budget.



PUBLIC WORKS - TRANSPORTATION SERVICES

Yonge Street, City of Richmond Hill



OPERATING BUDGET

Major Mackenzie Drive West Terminal, City of Vaughan

Leveraging Private and Public Sector Expertise in Delivery

TRANSIT



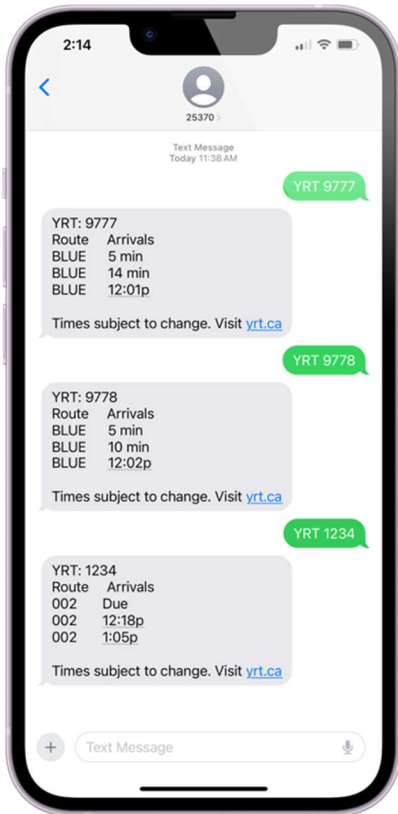
of direct costs are contracted services for providing transit service to travellers

ROADS

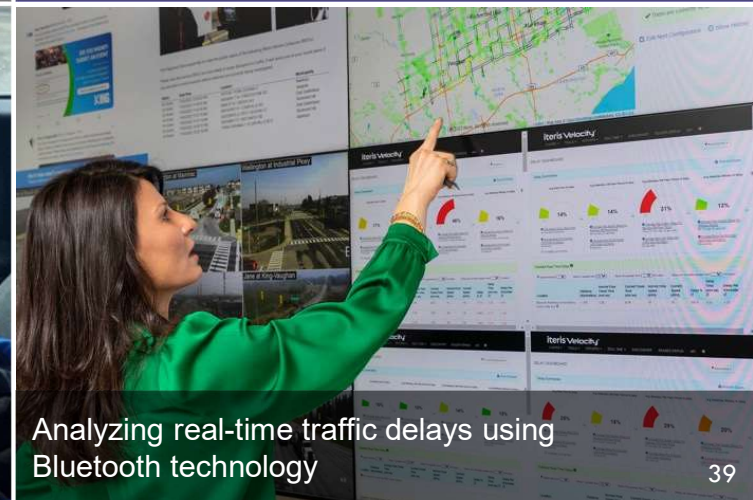
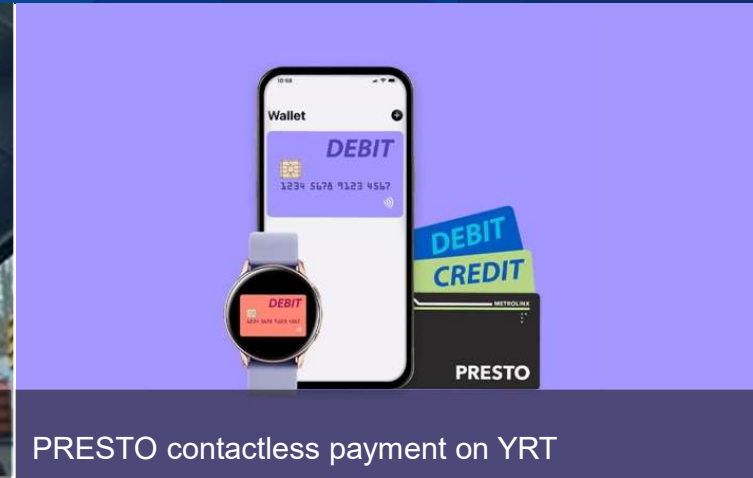
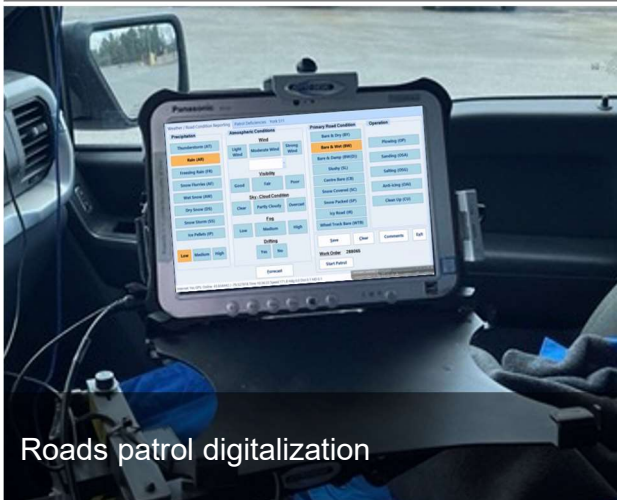


of direct costs are contracted services for maintenance of road network

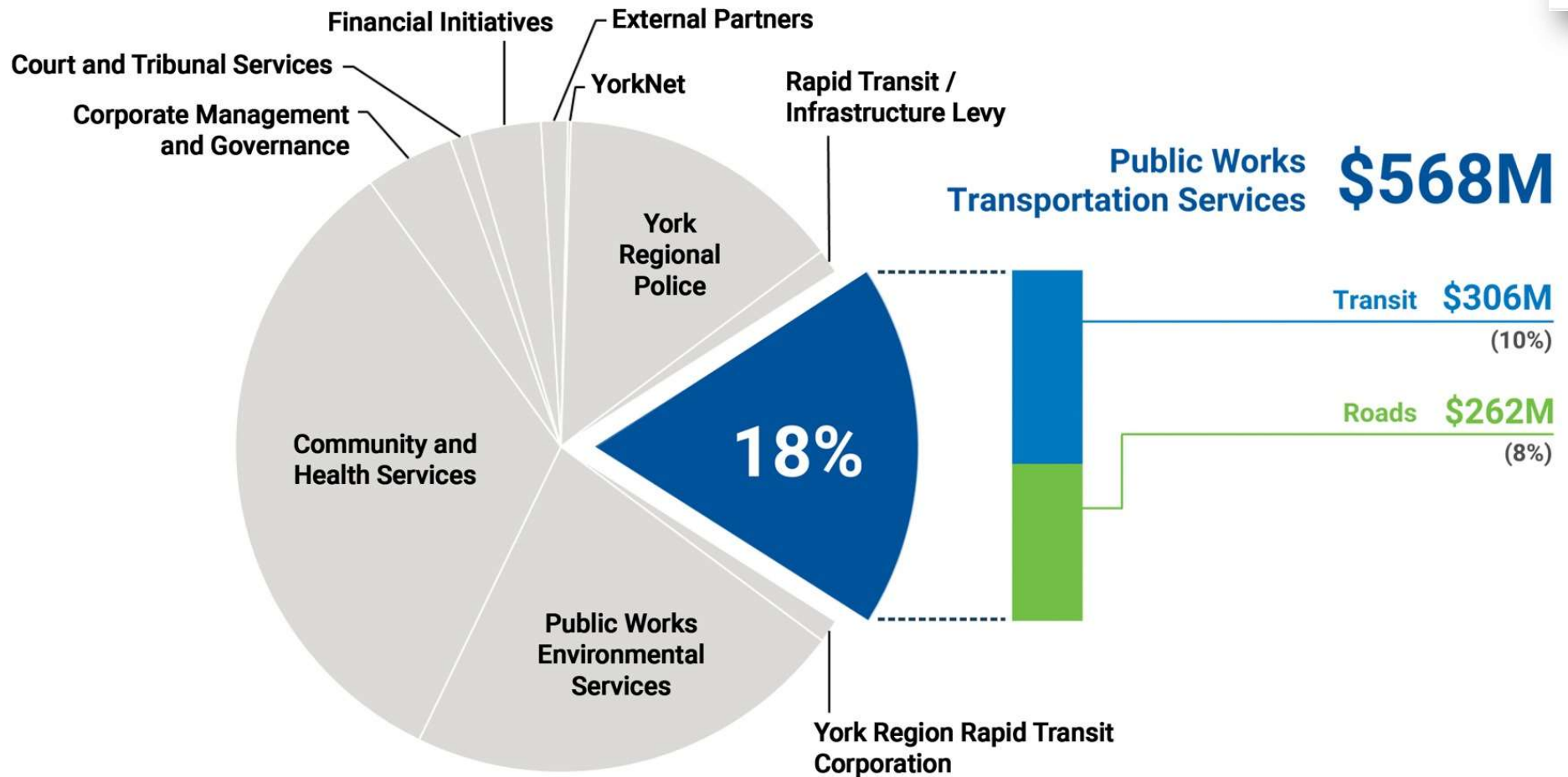
Driving Innovation in Service Delivery



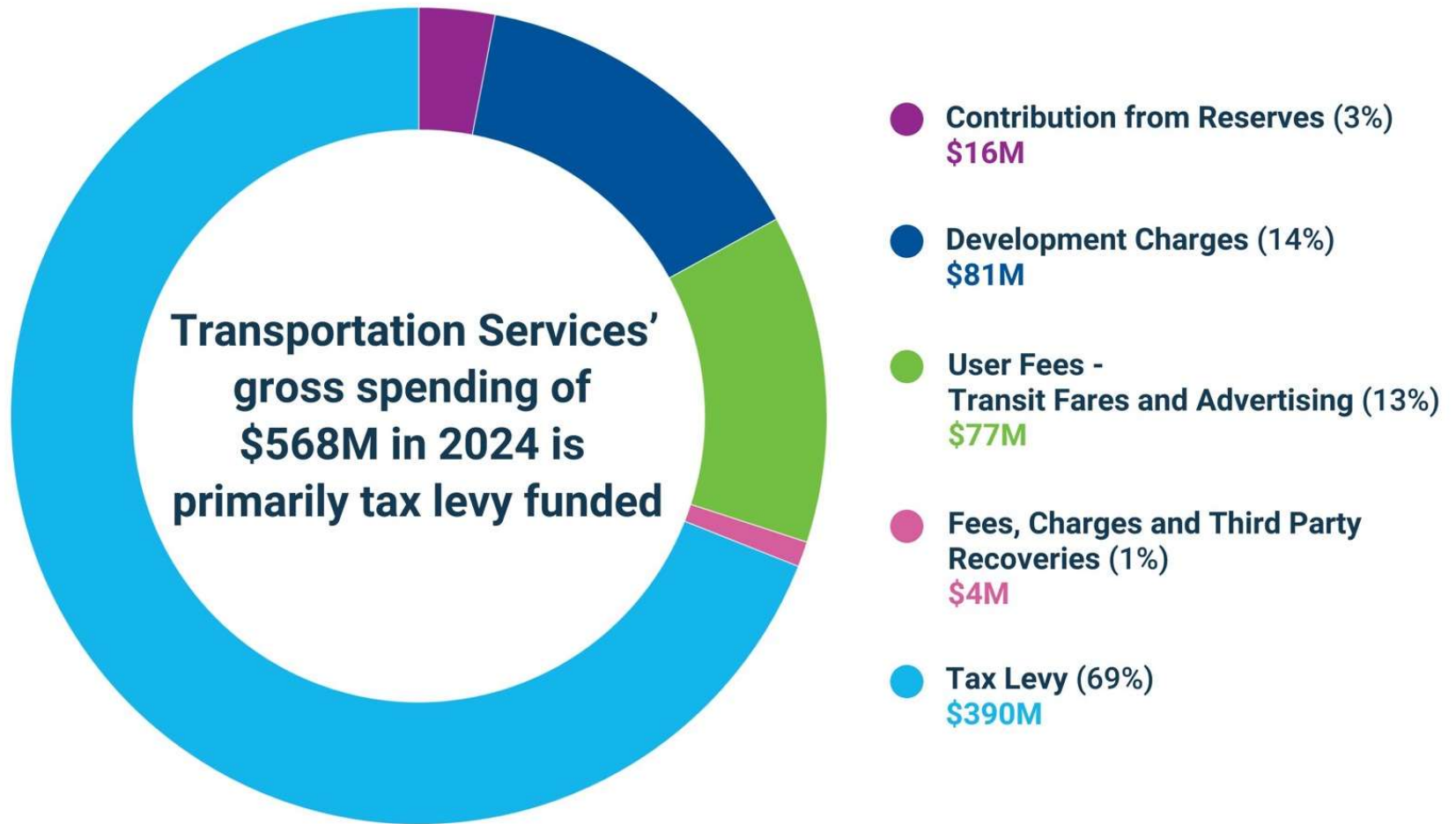
YRT SMS Real-time arrival times



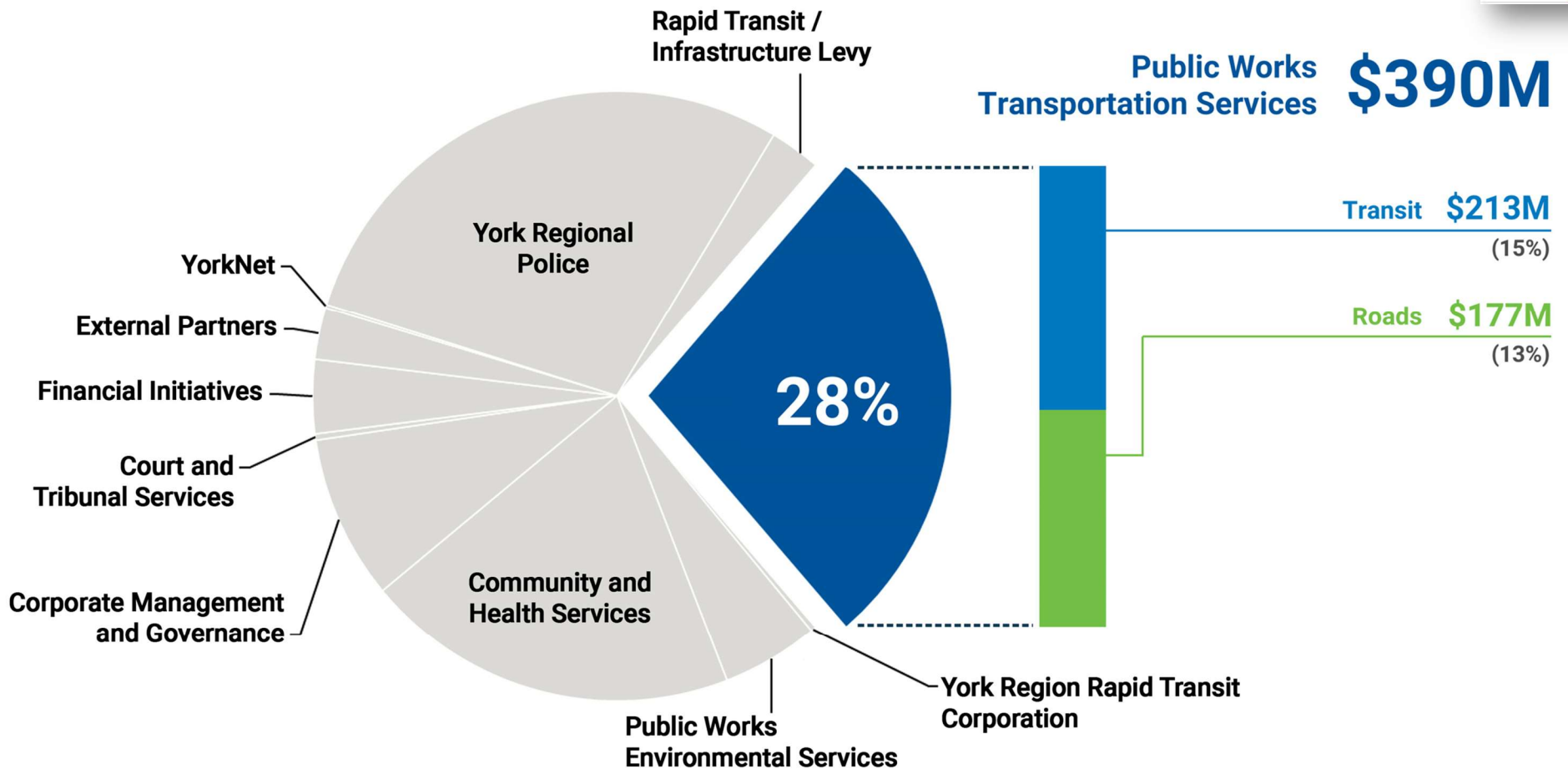
Transportation Services' Budget is 18% of the Region's Expenditures



Budget is Funded Through Tax and Non-Tax Revenues



Transportation Services' Budget Is 28¢ of Region's Tax Dollar



Operating Budget at a Glance

(in \$M)	APPROVED	PROPOSED	OUTLOOK	
	2023	2024	2025	2026
Proposed Budget (Net)	387.4	390.1	413.0	429.6
Total Budget Change		2.7	22.9	16.6
Restated Outlook		404.5	419.8	427.9
Increase / (Decrease) from Outlook		-3.6%	-1.6%	0.4%

2024 Budget Change Highlights

Expenditures

- Increase in contributions to capital replacement reserves
- Increasing contractor costs and inflationary increases

\$9.2M ↑

\$4.0M ↑

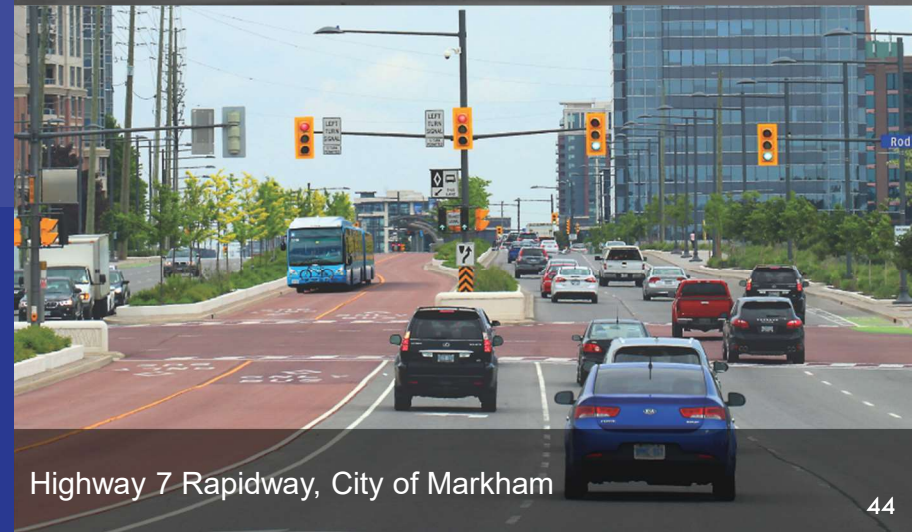


Snowplow contracted to York Region

Revenues

- Increase in net transit revenues due to ridership and service recovery

\$8.4M ↑



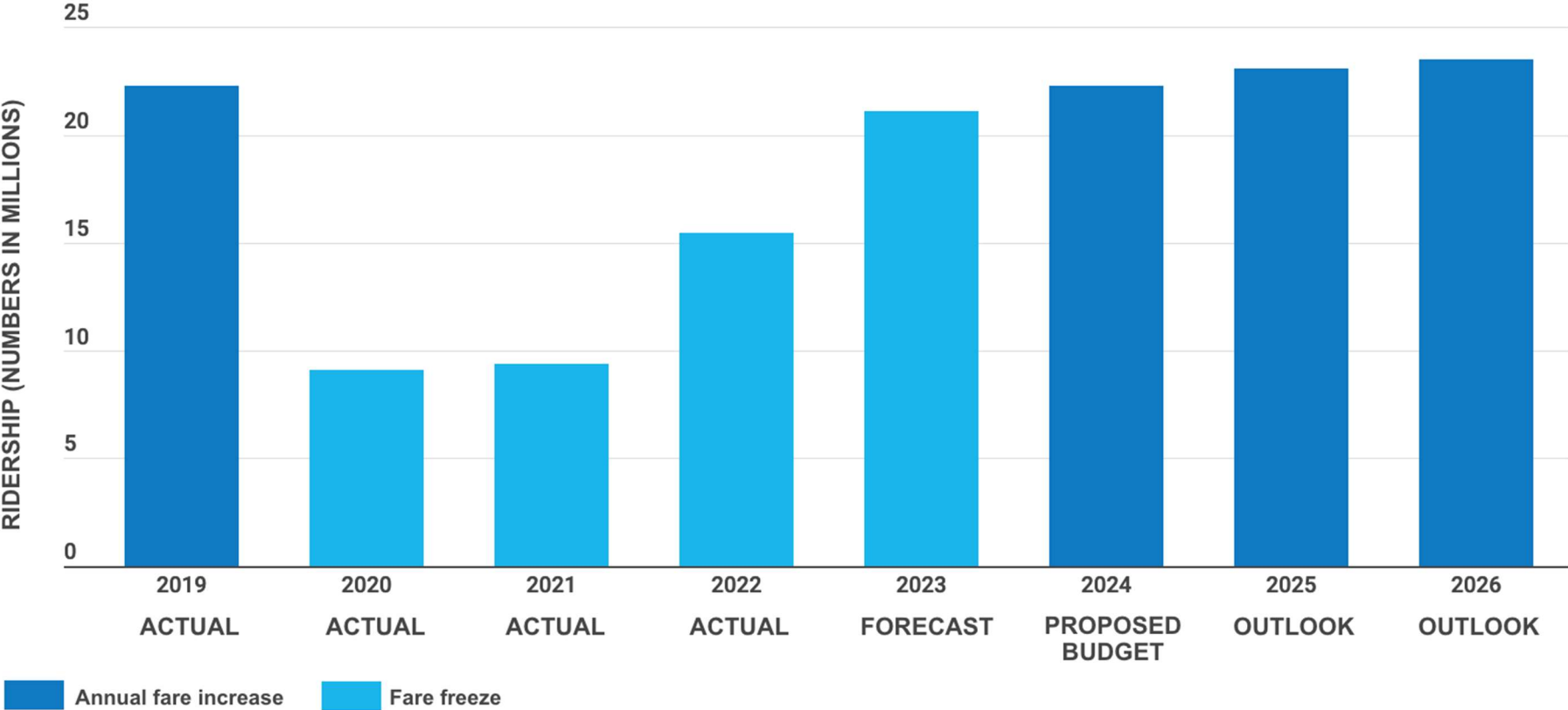
Highway 7 Rapidway, City of Markham

Efficiencies

- Rationalizing budget to better reflect expected spending

\$2.1M ↑

Transit Fare Increases are Required to Offset Operating Costs

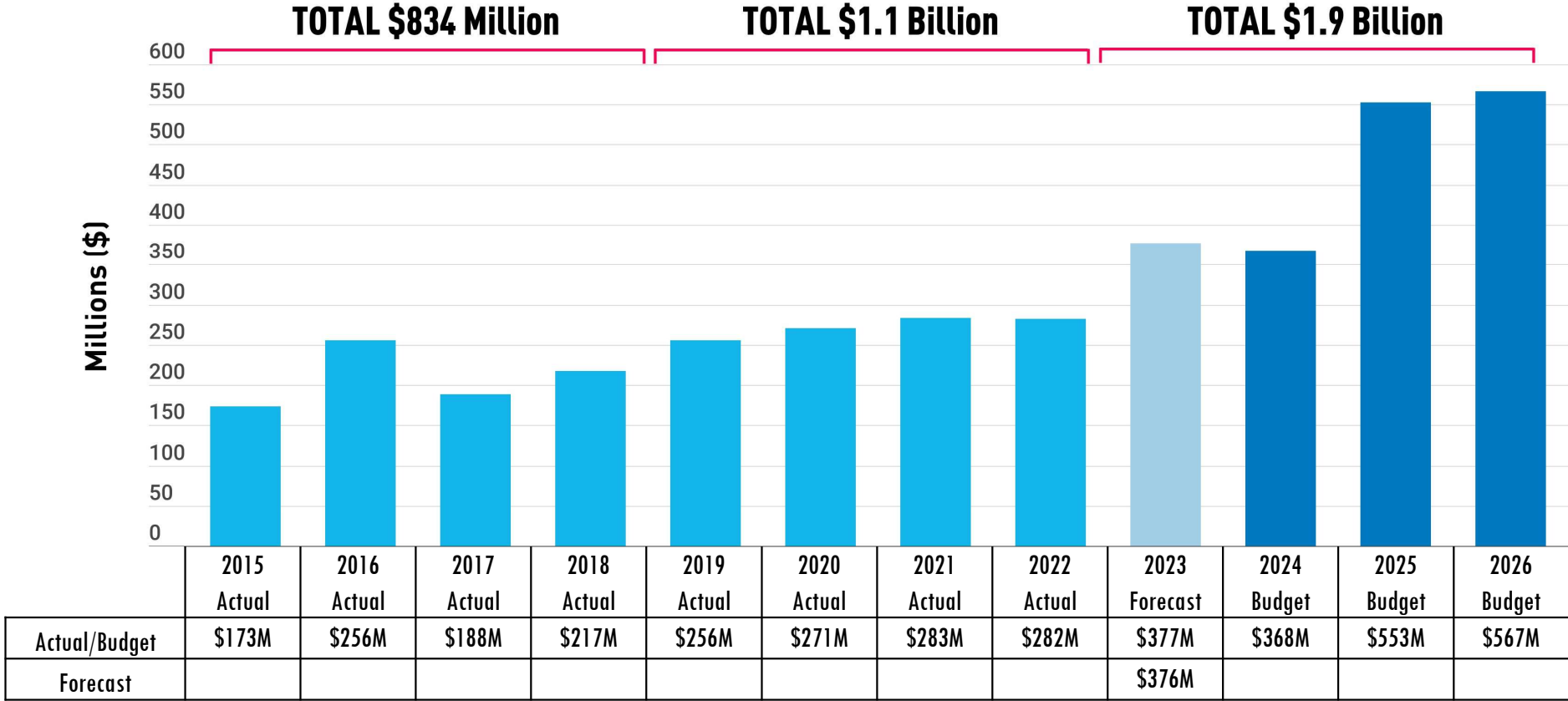




CAPITAL BUDGET

Construction on Teston Road, City of Vaughan

Transportation Services' Capital Investment

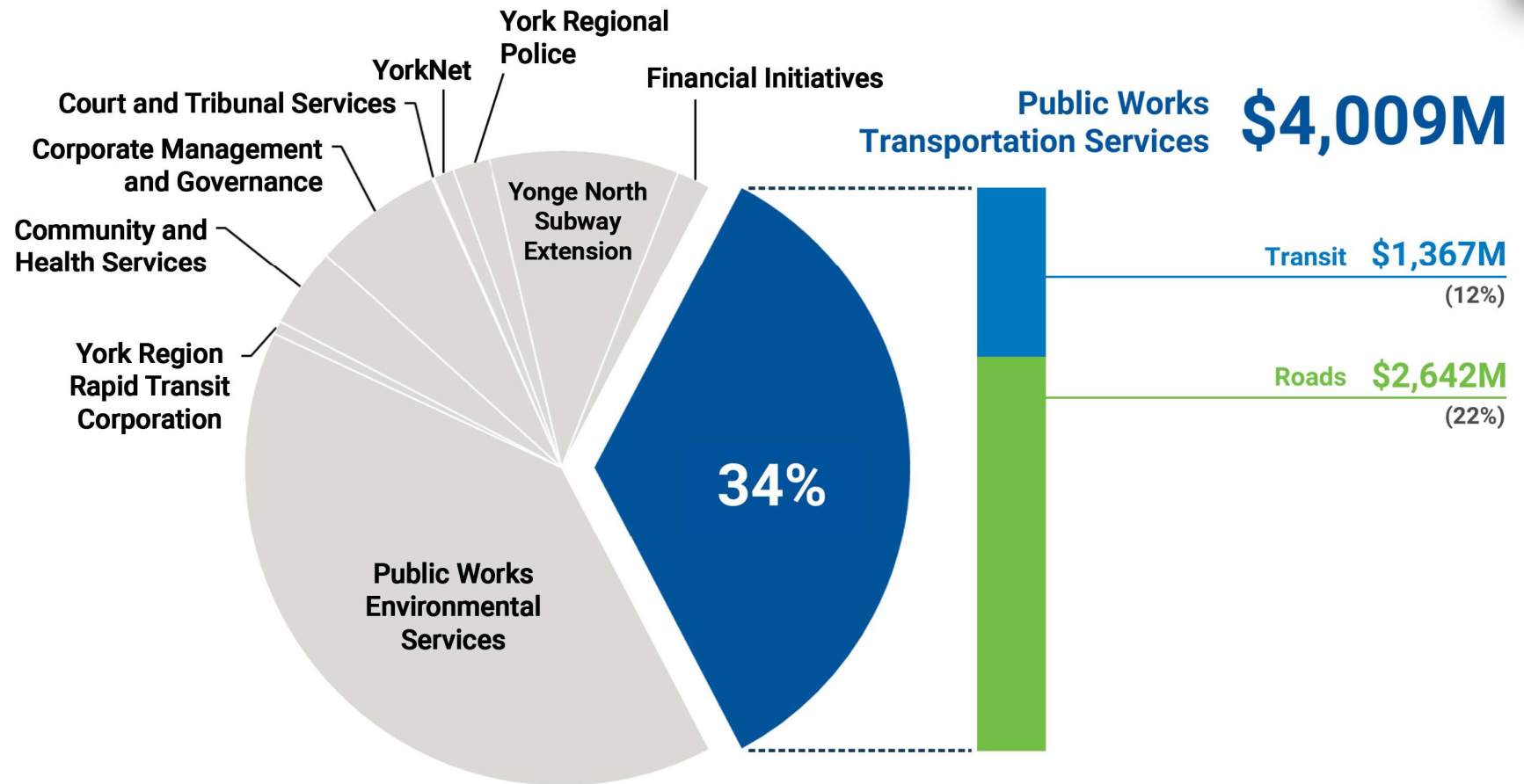


Capital Budget at a Glance

Capital Budget	Millions (\$)
2024 Capital	368.4
10-Year Capital Plan	4,008.9
Capital Spending Authority	1,864.9



10-Year Capital Plan is 34% of Region's Plan

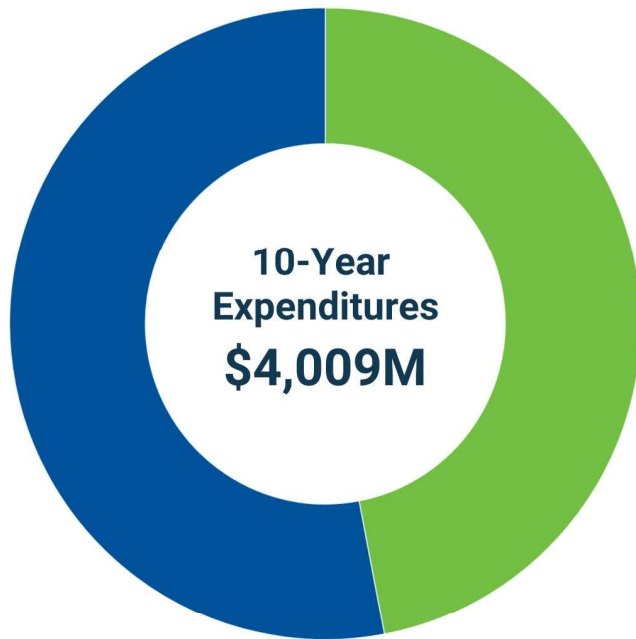


2024 Proposed 10-Year Capital Plan

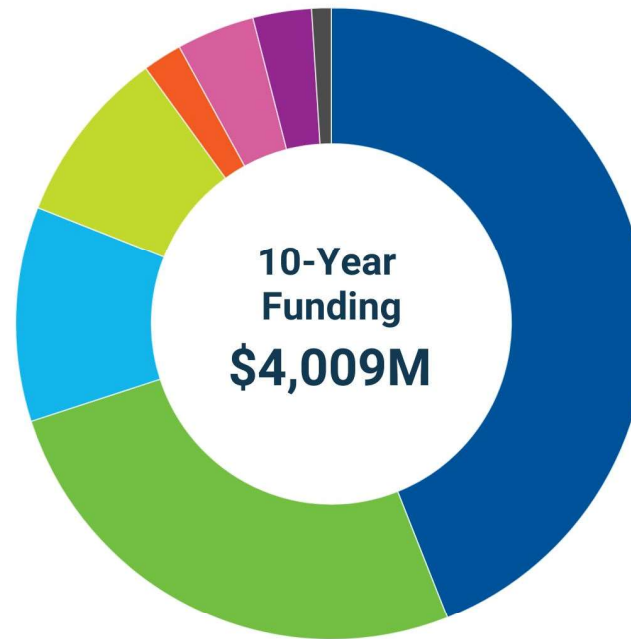


Transportation Services is 47% of Public Works' capital spending

Capital Expenditures and Funding



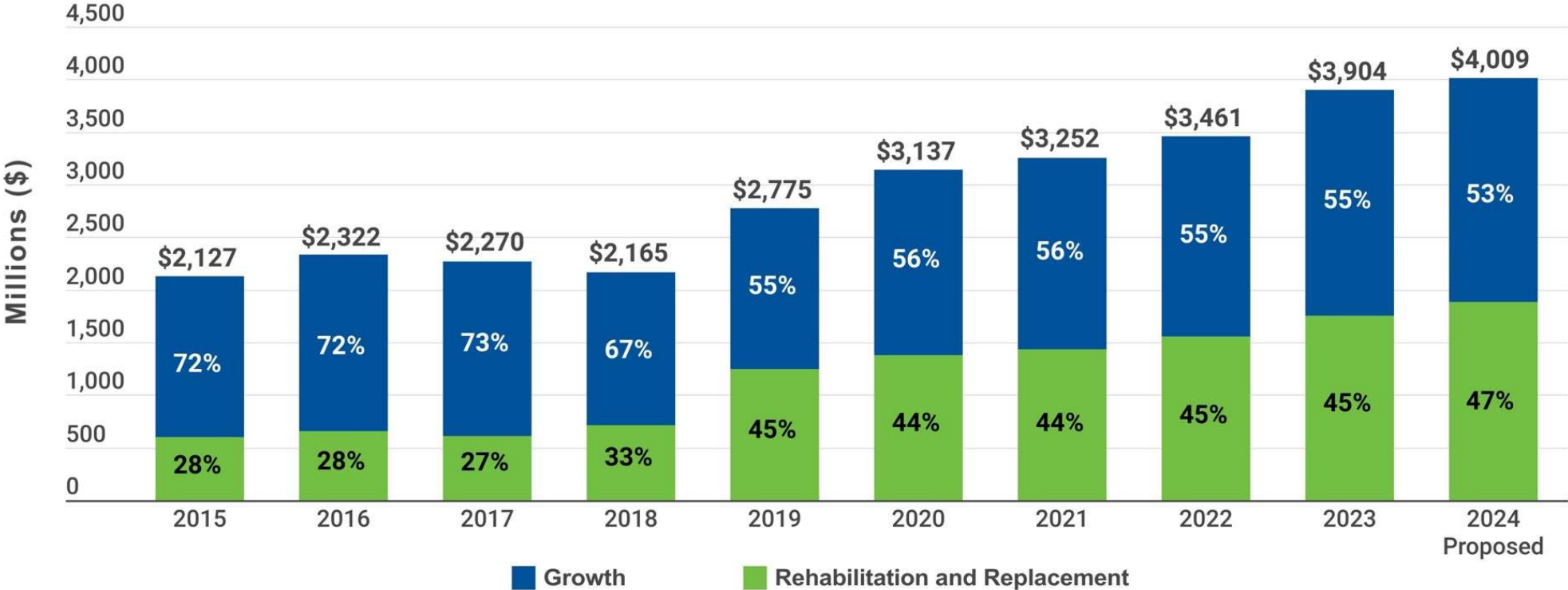
- Rehabilitation and Replacement (47%)
\$1,877.5M
- Growth (53%)
\$2,131.4M



- Development Charges (44%)
\$1,757.8M
- Asset Replacement Reserves (26%)
\$1,051M
- Program-Specific and Gen. Capital Reserves (11%)
\$436.2M
- Canada Community-Building Fund Reserve (9%)
\$364.9M
- Grants and Subsidies (2%)
\$75.9M
- Other Recoveries (4%)
\$156.7M
- ZETF Debt (3%)
\$134.2M
- Developer Financing (1%)
\$32.2M

2024 Capital Plan by Category

Transportation Services' 2024 10-year capital plan is \$4,009M, of which 53% is for growth and 47% is for rehabilitation and replacement



Key Deliverables in 10-Year Capital Plan

ROADS

\$1,547M Growth	\$1,095M Rehabilitation and Replacement	\$2,642M Total
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TRANSIT

\$584M Growth	\$783M Rehabilitation and Replacement	\$1,367M Total
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2024 Proposed 10-Year Capital Plan Deliverables

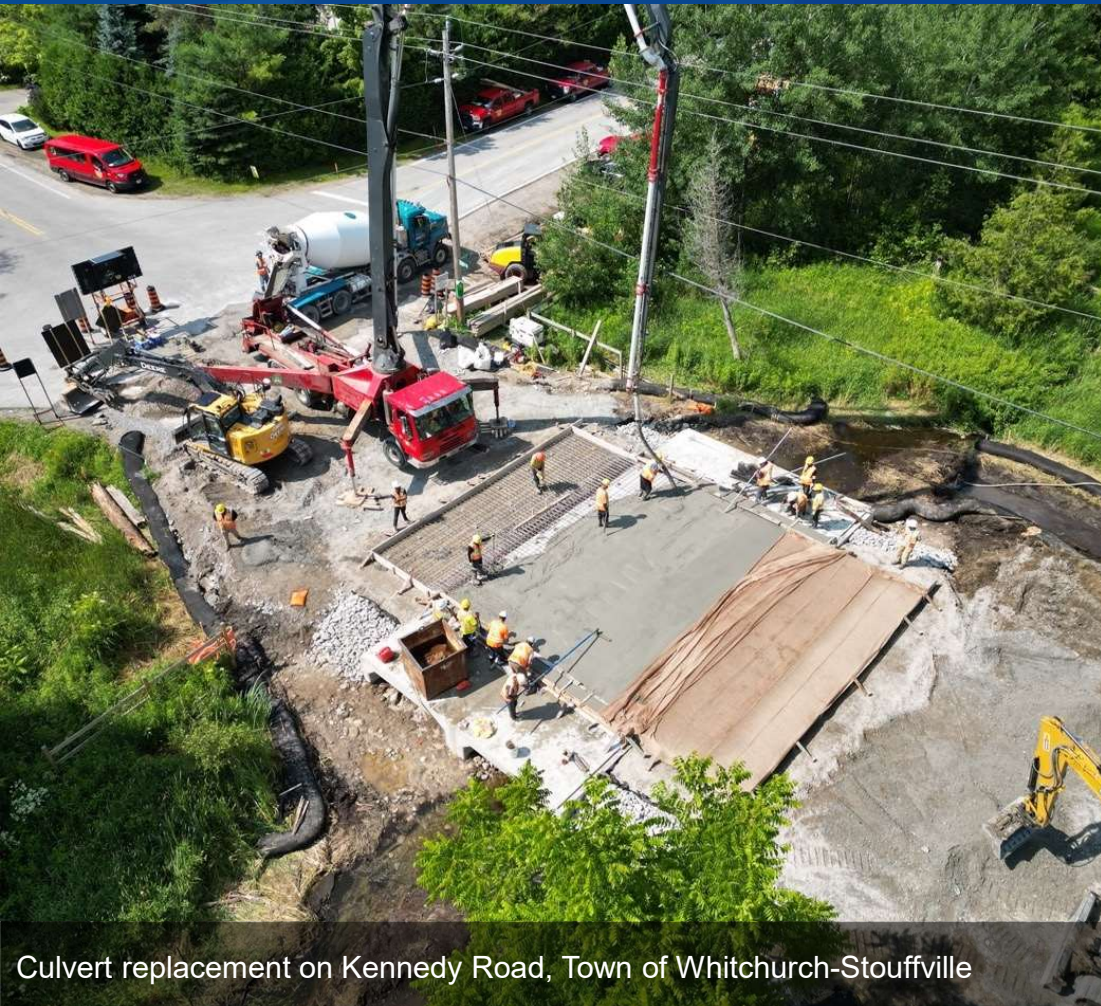


GROWTH

- 92 new lane kms
- 1 new grade separation
- 2 new mid-block crossings
- 130 intersection improvements
- 231 buses
- 208 electric charging stations
- 4 transit garage expansion projects
- 6 roads facilities projects

Intersection of Dufferin Street and Rutherford Road, City of Vaughan

2024 Proposed 10-Year Capital Plan Deliverables



REHABILITATION AND REPLACEMENT

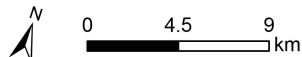
- 3,580 lane kms to be rehabilitated
- 100 structures to be rehabilitated
- 454 bus replacements
- 433 bus rehabilitations and refreshes

Culvert replacement on Kennedy Road, Town of Whitchurch-Stouffville

2024 Transportation Initiatives

Program Type

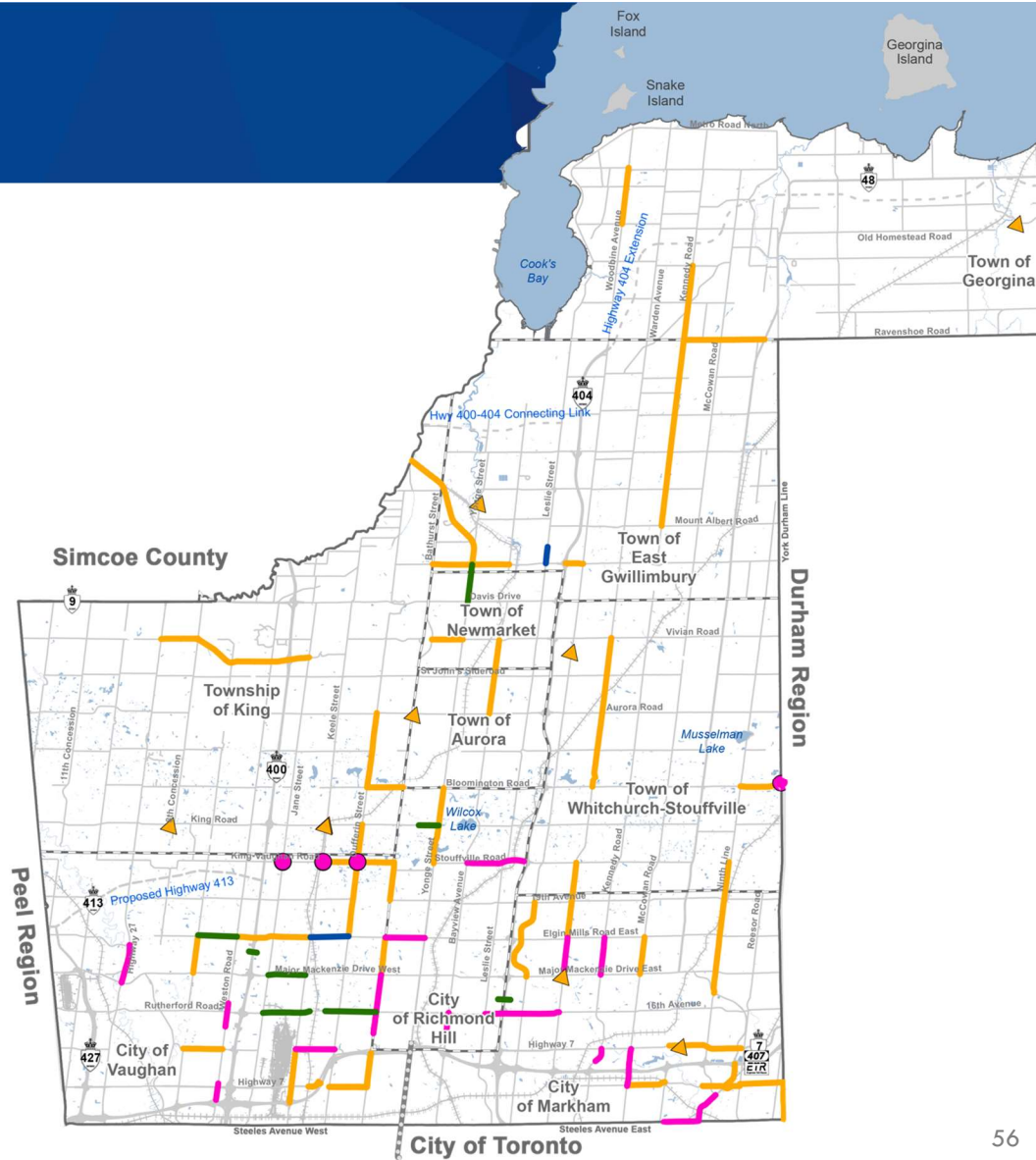
- Growth, Construction
- Asset Management
- Design
- Environmental Assessment



Produced by: Transportation and Infrastructure Planning,
Public Works - November 2023
Base map data: King's Printer for Ontario 2003-2023

BASE MAP INFORMATION

- Bridge Replacement/Improvement
- Interchange/Intersection Improvement
- Yonge Street North Subway Extension (YNSE)
- Provincial Freeway
- Provincial Highway
- Regional Road
- Railway
- Chippewas of Georgina Island First Nation
- Water Bodies



2024 10-Year Roads Growth Construction Program and 5-Year Asset Management Program

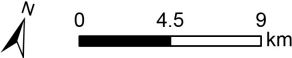
Program Type

- █ Growth Capital Program (2024-2033)
- █ Asset Management (2024-2028)

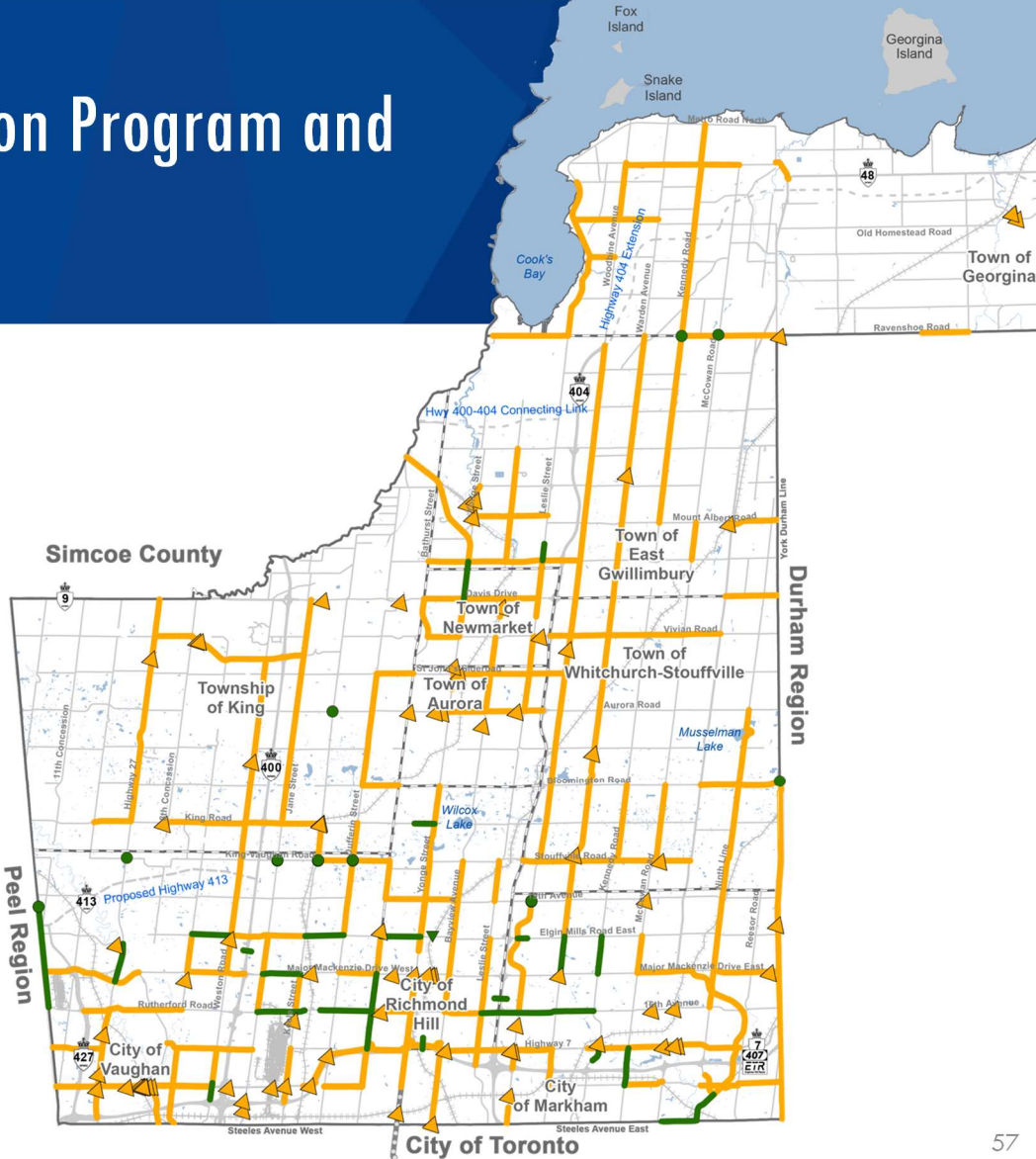
BASE MAP INFORMATION

- Bridge Replacement/Improvement
- Interchange/Intersection Improvement
- Yonge Street North Subway Extension (YNSE)
- Provincial Freeway
- Provincial Highway

- Regional Road
- Railway
- Chippewas of Georgina Island First Nation
- Water Bodies



Produced by: Transportation and Infrastructure Planning, Public Works - November 2023
 Base map data: King's Printer for Ontario 2003-2023



Summary of Capital Budget

- \$4.0B 10-year capital plan balances growth and rehabilitation and replacement investments totaling 35% of Region's 10-year capital plan
- 10-year capital plan continues to reflect acceleration of electric bus adoption
- Significant inflationary pressures on Roads expansion projects and Transit fleet electrification offset by deferring facilities and reduced Transit fleet purchases
- Supply chain disruptions, cost escalation, approvals risk, potential misalignment between pace of growth and infrastructure timing are being monitored and mitigated through various mitigation strategies

Budget Summary

- Cumulative efficiencies of \$1.9M
- 10-year capital plan of \$4.0B delivers key projects while balancing growth and rehabilitation and replacement
- Resource requests support continued service delivery excellence



ECONOMIC
VITALITY



HEALTHY
COMMUNITIES



SUSTAINABLE
ENVIRONMENT



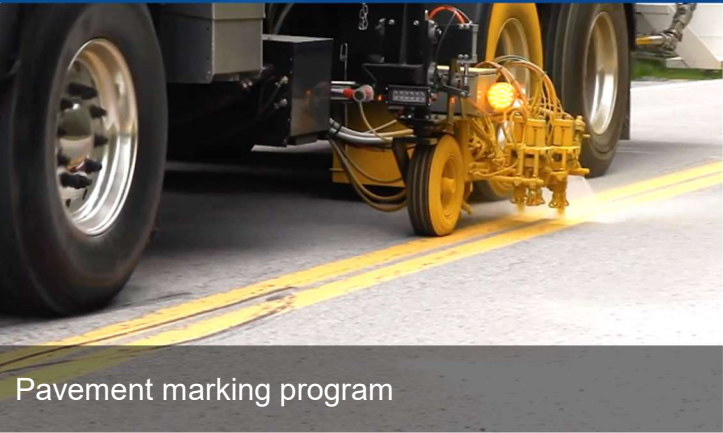
GOOD
GOVERNMENT



Multi-Year Budget Overview

Operating Budget				
(in \$M)	APPROVED 2023	PROPOSED 2024	OUTLOOK	
			2025	2026
Gross Expenditures	541.0	568.4	596.5	610.6
Non-Tax Revenues	(153.6)	(178.3)	(183.5)	(181.0)
Net Tax Levy	387.4	390.1	413.0	429.6
FTEs - Total	546.1	575.9	598.9	608.9
- New		29.8	23.0	10.0
Capital Budget				
2024 Capital Expenditures				368.4
10-Year Capital Plan				4,008.9
Capital Spending Authority				1,864.9

Delivering Value For Money for \$3 per Day



Budget Recommendations

1. Committee of the Whole recommends the budget as submitted for Public Works - Transportation Services as follows:
 - a) The 2024 operating budget and 2025 to 2026 operating outlook as summarized in Appendix A, which includes:
 - i. An annual 3 percent transit fare increase in July 2024 to address increasing service costs
 - b) The 2024 capital expenditures and Capital Spending Authority, as summarized in Appendix B
2. The recommended budget be consolidated by the Commissioner of Finance and Regional Treasurer for consideration by Council on December 21, 2023.