



City of Toronto

# Green Bond Newsletter

July 2024





# A message from the Chief Financial Officer and Treasurer



In this, our 2024 Green Bond Newsletter, you'll see the City's continued commitment to climate action. We are transforming Toronto into a low-carbon city with initiatives to reduce greenhouse gas (GHG) emissions financed by the City's innovative Green Bond program.

In 2021, Toronto City Council adopted the TransformTO Net Zero Strategy to achieve net zero GHG emissions by 2040, one of the most ambitious targets in North America. Integrating Environmental, Social and Governance (ESG) factors throughout the organization is also embedded in our ambitious climate action strategy.

Our climate lens assessment considers the potential impacts of a project on GHG emissions and Toronto's resilience to climate change and extreme weather. City projects, programs, policies and investments must contribute to our strategic priorities, including reducing GHG emissions by 2040 and increasing Toronto's climate resilience.

Despite a challenging fiscal environment, the funds raised through our successful Green Bond program enable the City to continue to invest in projects to advance our climate action goals.

Investors and residents alike will be delighted to learn that the proceeds from our most recent Green Bond have supported sustainable clean transportation, energy efficiency and climate change adaptation. Projects included cycling infrastructure, TTC infrastructure, upgrades and

capacity improvements, the Renewable Thermal Energy program, energy conservation demand management programs and the Scarborough Waterfront revitalization. These municipal infrastructure investments are helping to build a Toronto that prioritizes people and the planet.

The City is proactively addressing climate change and moving Toronto toward a cleaner future, implementing effective solutions that will make Toronto an environmental leader and a resilient city for current and future generations.

Year over year our Green and Social Bond programs are proving to be environmentally and socially responsible smart investments that continue to generate strong demand and results. I want to thank our community of investors, staff and residents for your ongoing commitment to making a tangible difference.

Sincerely,

Stephen Conforti  
Chief Financial Officer and Treasurer  
City of Toronto

To learn more about the City's Green Bond Program, visit:

<https://www.toronto.ca/city-government/budget-finance/city-finance/investor-relations/green-debenture-program/>



# City of Toronto Green Bonds

## Assurances

Sustainalytics, an independent sustainability rating firm, reviewed the City of Toronto's Green Bond Framework and provided an assessment of the City's environmental credentials as it relates to the Green Bond Principles.

## Alignment with Green Bond principles

Sustainalytics is of the opinion that the City's Green Bond Framework is credible and impactful, and aligns with the four pillars of the Green Bond Principles, 2017.

## Impact reporting

The City will use the best available methodologies to select and report on project indicators.

## Key features

- Rank *pari passu* with conventional City bonds, payable without preference or priority
- Carry the full faith and credit of the City
- Investors do not assume any project-related risks
- Complies with the City's Green Bond Framework
- City green bonds align with the Green Bond Principles, which promote integrity in the market through transparency, disclosure and reporting

## Future issuances

The City plans to have regular green bond issuances, with the next offering expected in 2023.



# 2018 Green Bond

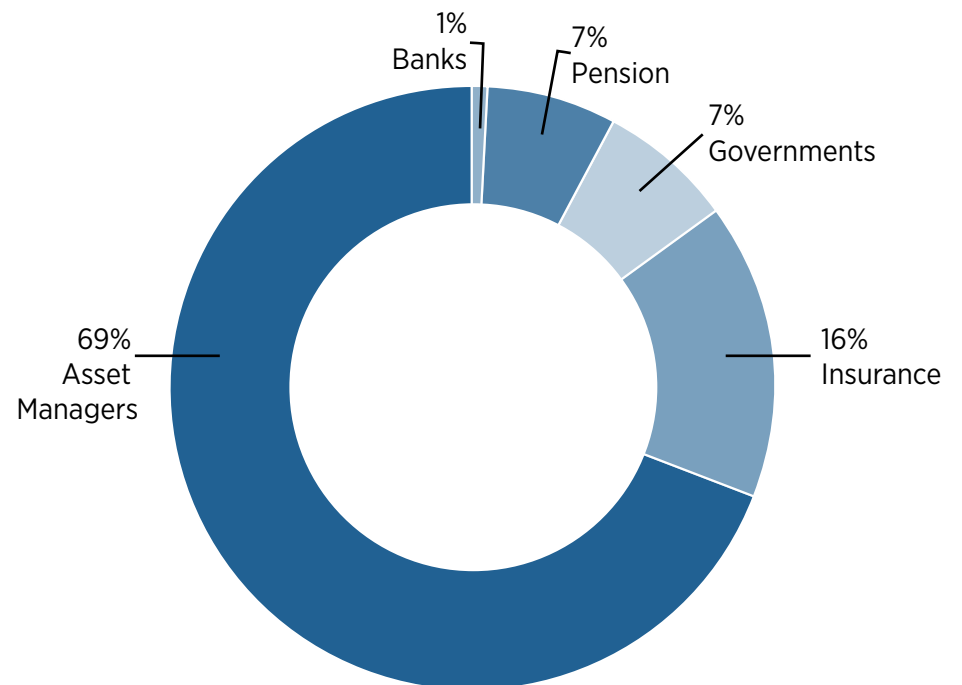
As a part of the City's (AA/Aa1/AA) overall capital borrowing program, the City initiated a Green Bond Program in 2018. Under the Program, net proceeds from bonds are used to fund Council approved capital projects that align with TransformTO, Toronto's Climate Action Strategy.

On July 18, 2018, the City successfully issued a C\$300 million green bond. The bond was priced to yield 3.21 per cent with an August 2048 maturity. The offering marked the City's first-ever green bond issue and the largest municipal green bond in Canada.

Net proceeds from the 2018 green bond issue are funding eligible projects for sustainable clean transportation, including the purchase of subway cars, the renewal of core and supporting infrastructure of electric rail, building the Scarborough Subway extension, revitalizing Union Station and making Leslie Barns more energy efficient and resilient to climate change.

The issue was over-subscribed with orders from 36 domestic investors.

## 2018 Investor Type



# 2019 Green Bond

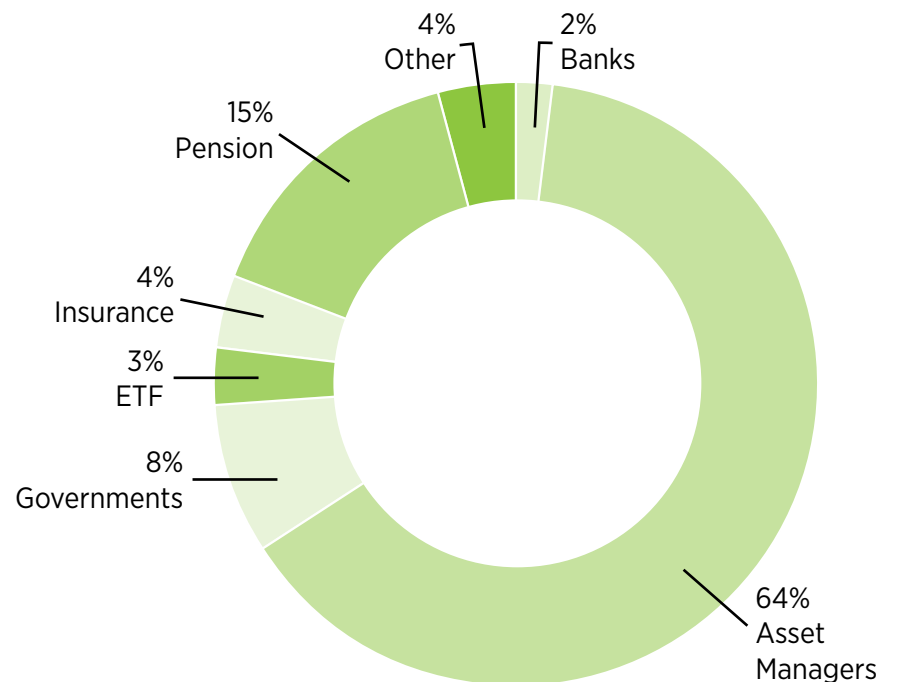
On September 9, 2019, the City successfully issued another C\$200 million green bond. The bond was priced to yield 2.646 per cent with a September 2039 maturity.

Net proceeds from the 2019 green bond issuance are funding eligible projects for Toronto Community Housing energy retrofits, energy efficiency projects financed by the Sustainable Energy Plan Financing program, arena lighting retrofits, Port Lands flood protection, cycling infrastructure, renewal of electric rail infrastructure and solar photovoltaic projects.

The issue was over-subscribed with orders from 53 domestic and international investors.

**Bonds included in the index are independently evaluated and meet established Green Bond Principles. Indices include the S&P Green Bond, Solactive Green, and Bloomberg Barclays MSCI Green Bond Indices.**

## 2019 Investor Type





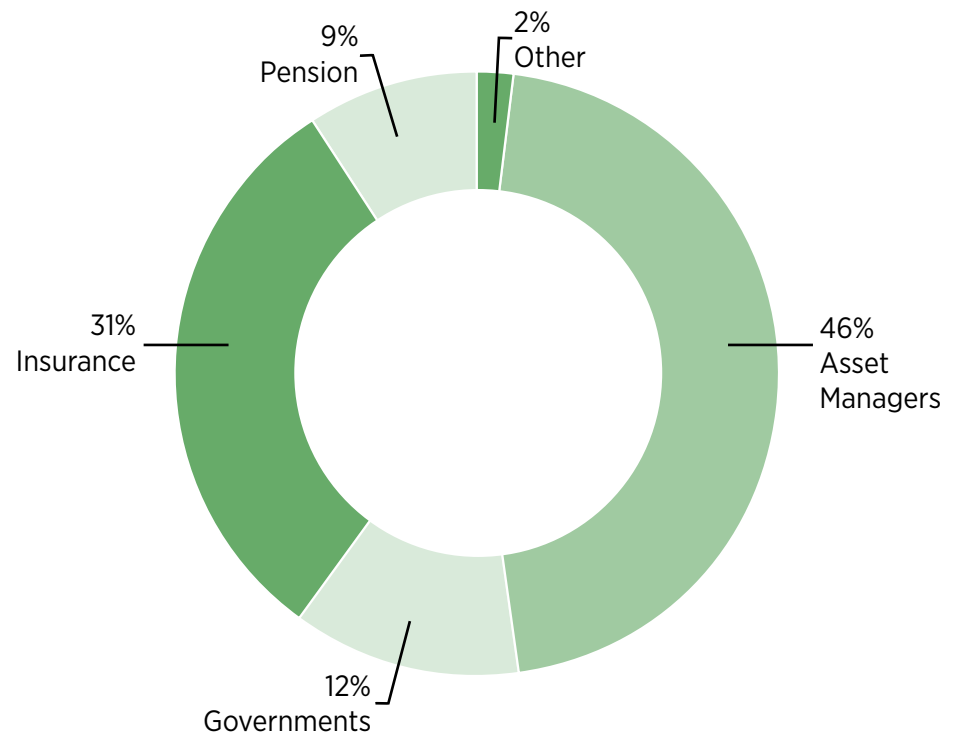
# 2020 Green Bond

On December 1, 2020, the City successfully issued another C\$130 million green bond by re-opening its September 24, 2039 green bond. This additional issue brings the total outstanding to \$330 million. The bond was priced to yield 2.14 per cent.

Net proceeds from the 2020 Green Bond issuance are funding eligible projects for Toronto Community Housing energy retrofits, Port Lands flood protection, and renewal of core and supporting electric rail infrastructure.

The issue was over-subscribed with orders from 36 domestic and international investors.

## 2020 Investor Type





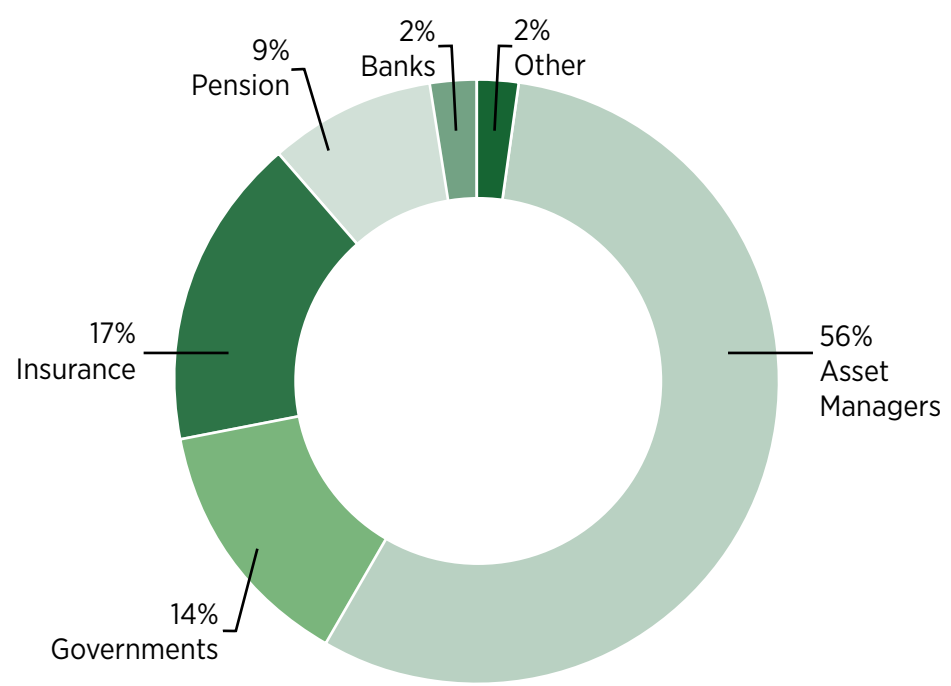
# 2021 Green Bond

On December 2, 2021, the City successfully issued another C\$150 million green bond. The bond was priced to yield 2.238 per cent with a December 21, 2031 maturity.

Net proceeds from the 2021 green bond issuance are funding eligible projects for Toronto Community Housing multi-year retrofits, Port Lands flood protection, Dufferin organics processing facility and TTC purchase of electric buses and renewal of electric rail supporting infrastructure.

The issue was over-subscribed with orders from 29 domestic and international investors.

## 2021 Investor Type



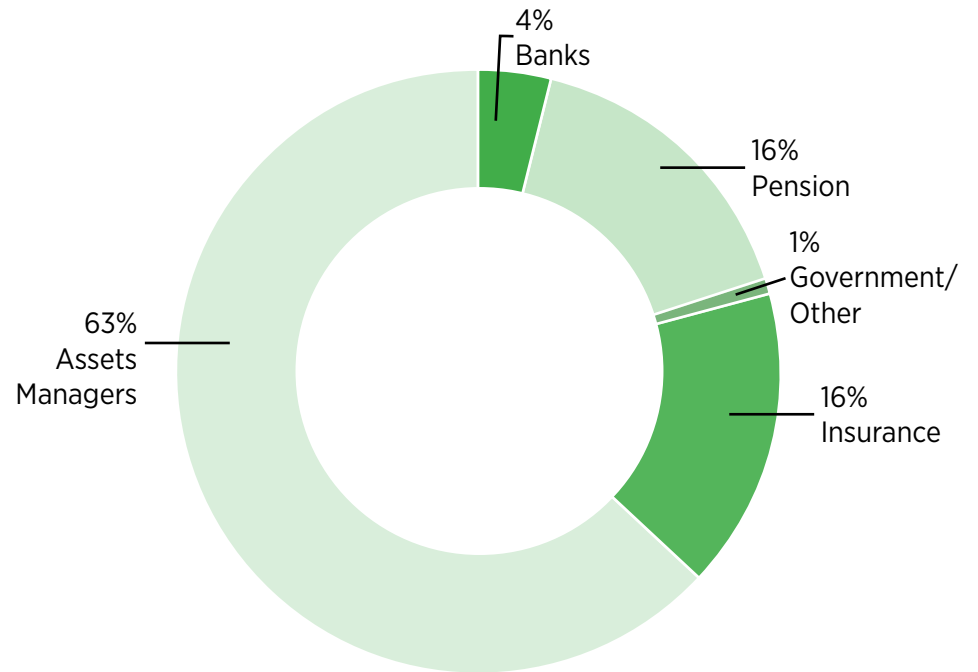
# 2022 Green Bond

On December 14, 2022, the City successfully issued another C\$300 million green bond. The bond was priced to yield 4.419 per cent with a December 14, 2042 maturity.

Net proceeds from the 2022 green bond issuance are funding eligible projects for Port Lands Flood Protection, and sustainable clean transportation including cycling infrastructure, bridges and tunnels, electric and signal systems, subway and surface tracks, and traction power.

The issue was over-subscribed with orders from 32 domestic and international investors.

## 2022 Investor Type





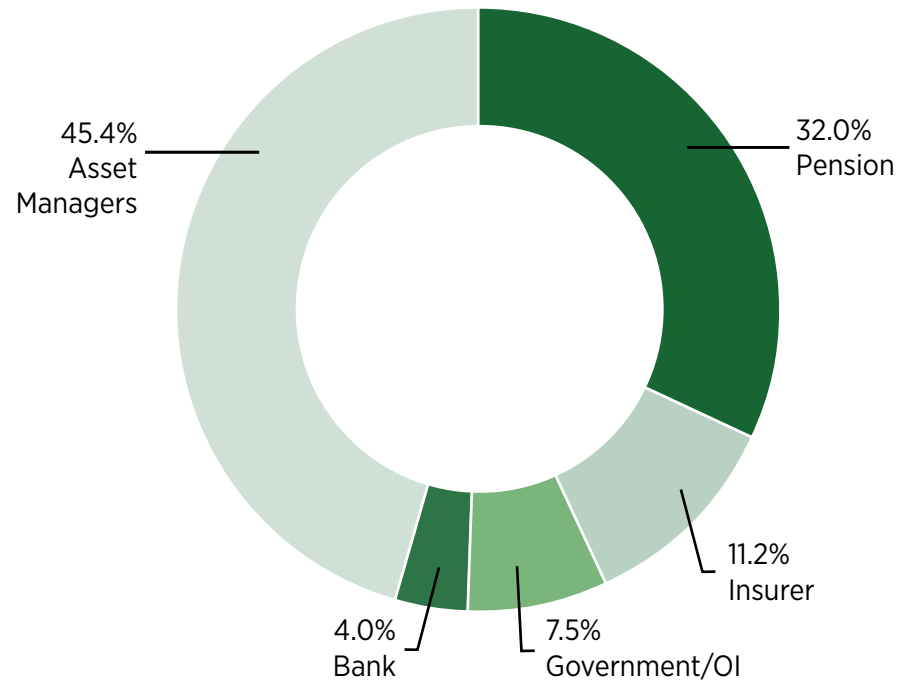
# 2023 Green Bond

On September 15, 2023, the City successfully issued a C\$100 million green bond by re-opening its December 14, 2042 green bond. This additional issue brings the total outstanding amount to \$400 million. The bond was priced to yield 4.912 per cent.

Net proceeds from the 2023 green bond issuance are funding eligible projects for Scarborough Waterfront revitalization, cycling infrastructure, renewable thermal energy, energy conservation and demand management systems, transit bridges and tunnels, electric and signal systems, subway and surface tracks and capacity improvements.

The issue was over-subscribed with orders from 29 domestic and international investors.

## 2023 Investor Type





# Use of proceeds – 2018 Green Bond

All bond proceeds have been disbursed for the 2018 green bond. Proceeds from green bonds are assigned to specific projects at the time of issuance and listed in the debenture by-law #1059-2018.

Project name	Total allocation (\$000s)	Funds disbursed (\$000s)	% disbursed
<b>Sustainable clean transportation</b>			
<b>Supporting infrastructure</b>			
Bridges and tunnels	36,733	36,733	100%
Subway track	42,173	42,173	100%
Leslie Barns LRT maintenance and storage facility	42,000	42,000	100%
Scarborough subway extension	35,099	35,099	100%
Union Station revitalization	117,295	117,295	100%
<b>Fleet</b>			
Purchase of subway cars	26,700	26,700	100%
<b>Total</b>	<u>300,000</u>	<u>300,000</u>	<u>100%</u>



# Use of proceeds – 2019 Green Bond

All bond proceeds have been disbursed for the 2019 green bond. Proceeds from green bonds are assigned to specific projects at the time of issuance and listed in the debenture by-law #1297-2019.

Project name	Total allocation (\$'000s)	Funds disbursed (\$'000s)	% disbursed
<b>Sustainable clean transportation</b>			
<b>Supporting infrastructure</b>			
Cycling infrastructure	24,353	24,353	100%
Surface track	4,694	4,694	100%
<b>Energy efficiency retrofits</b>			
Social housing revitalization and retrofit	111,961	111,961	100%
Community energy efficiency projects	14,884	14,884	100%
<b>Climate change adaptation &amp; resilience</b>			
Port Lands flood protection	44,108	44,108	100%
<b>Total</b>	<u>200,000</u>	<u>200,000</u>	<u>100%</u>



# Use of proceeds – 2020 Green Bond

All bond proceeds have been disbursed for the 2020 Green Bond. Proceeds from green bonds are assigned to specific projects at the time of issuance and listed in the debenture by-law #449-2020.

Project name	Total allocation (\$000s)	Funds disbursed (\$000s)	% disbursed
<b>Sustainable clean transportation</b>			
Subway track	8,773	8,773	100%
<b>Energy efficiency retrofits</b>			
TCHC multi-year retrofit	9,239	9,239	100%
<b>Climate change adaptation &amp; resilience</b>			
Port Lands flood protection	111,988	111,988	100%
<b>Total</b>	<u>130,000</u>	<u>130,000</u>	<u>100%</u>



# Use of proceeds – 2021 Green Bond

All bond proceeds have been disbursed for the 2021 green bond. Proceeds from green bonds are assigned to specific projects at the time of issuance and listed in the debenture by-law #1028-2021.

Project name	Total allocation (\$000s)	Funds disbursed (\$000s)	% disbursed
<b>Sustainable clean transportation</b>			
Purchase of buses	50,807	50,807	100%
Surface track	12,496	12,496	100%
Traction power	18,805	18,805	100%
Bridges and tunnels	20,420	20,420	100%
<b>Energy efficiency retrofits</b>			
TCHC multi-year retrofit	9,200	9,200	100%
<b>Climate change adaptation &amp; resilience</b>			
Port Lands flood protection	5,781	5,781	100%
<b>Pollution prevention and using waste as a resource</b>			
Dufferin SSO facility	32,491	32,491	100%
<b>Total</b>	<u>150,000</u>	<u>150,000</u>	<u>100%</u>



# Use of proceeds – 2022 Green Bond

All bond proceeds have been disbursed for the 2022 green bond. Proceeds from green bonds are assigned to specific projects at the time of issuance and listed in the debenture by-law #59-2023.

Project name	Total allocation (\$000s)	Funds disbursed (\$000s)	% disbursed
<b>Sustainable clean transportation</b>			
Bridges and Tunnels – Cycling Infrastructure	24,520	24,520	100%
Cycling Infrastructure	17,534	17,534	100%
Electric Systems	16,611	16,611	100%
Signal Systems	24,705	24,705	100%
Subway Track	33,699	33,699	100%
Surface Track	75,318	75,318	100%
Traction Power - Various	35,988	35,988	100%
<b>Climate change adaptation &amp; resilience</b>			
Port Lands flood protection	71,625	71,625	100%
<b>Total</b>	<u>300,000</u>	<u>300,000</u>	<u>100%</u>



# Use of proceeds – 2023 Green Bond

All bond proceeds have been disbursed for the 2023 green bond. Proceeds from green bonds are assigned to specific projects at the time of issuance and listed in the debenture by-law #882-2023.

Project name	Total allocation (\$'000s)	Funds disbursed (\$'000s)	% disbursed
<b>Sustainable clean transportation</b>			
Cycling Infrastructure	9,947	9,947	100%
TTC Infrastructure, upgrades and capacity improvements	68,304	68,304	100%
<b>Energy Efficiency</b>			
Renewable Thermal Energy Program	12,074	12,074	100%
Energy Conservation Demand Management	5,401	5,401	100%
<b>Climate change adaptation &amp; resilience</b>			
Scarborough Waterfront Project	4,274	4,274	100%
<b>Total</b>	<u>100,000</u>	<u>100,000</u>	<u>100%</u>



# TransformTO - Toronto's climate action strategy

TransformTO is the City's ambitious climate action strategy. TransformTO seeks to reduce greenhouse gas (GHG) emissions community-wide and increase climate resilience while improving social equity, health and economic prosperity.

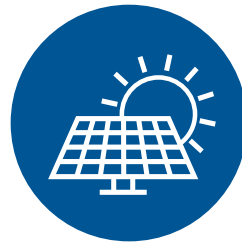
In October 2019, Toronto City Council declared a climate emergency, deepening the City's commitment to addressing climate change. In December 2021, Council adopted the TransformTO Net Zero Strategy which revised Toronto's long-term GHG emissions target to achieving net zero emissions by 2040 or sooner. Achieving net zero emissions will require transformational changes in how we live, work, build and commute. Everyone will have a role in making Toronto a low-carbon city. To reduce the worst impacts of climate change, TransformTO has set the following goals for 2030.



## Home and Buildings

All new homes and buildings will be designed and built to be near zero greenhouse gas emissions

Greenhouse gas emissions from existing buildings will be cut in half, from 2008 levels



## Energy

50 per cent of community-wide energy comes from renewable or low-carbon sources

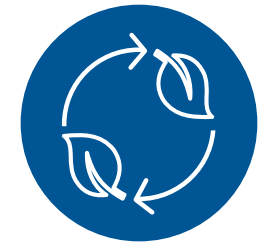
25 per cent of commercial and industrial floor area is connected to low carbon thermal energy sources



## Transportation

30 per cent of registered vehicles in Toronto are electric

75 per cent of school/work trips under 5km are walked, biked or by transit



## Waste Diversion

70 per cent residential waste diversion from the City of Toronto's waste management system

Identify pathways to more sustainable consumption in City operations and in Toronto's economy



In addition, this year marks the first edition of the [Annual TransformTO Net Zero Progress and Accountability Report](#), signifying a pivotal step in the City's commitment to tracking and reporting progress toward achieving net zero emissions by 2040. Released annually in March, the report consolidates key data and analysis on greenhouse gas emissions, the impact of Council-approved budgets on emission reduction and updates on the implementation of the TransformTO Net Zero Strategy. It aims to assess the City's progress, the effectiveness of City-led actions and budget alignment with net zero goals.







# Critical Steps to Achieving Net Zero

Achieving a net zero future requires pivotal actions for sustained progress. These actions present significant opportunities to advance our journey towards net zero, encompassing both City Corporation initiatives and broader efforts across Toronto. For an update on the progress made toward each of these critical steps see the [Annual TransformTO Net Zero Progress and Accountability Report](#) for 2023. Additionally, it showcases the City’s leadership in reducing greenhouse gas emissions throughout its operations, identifies key obstacles and outlines essential requirements for further progress.

## Project eligibility and selection

The selection of eligible projects is the responsibility of the City’s Corporate Finance Division in consultation with internal and external expert stakeholders. Eligible projects are selected in accordance with City guidelines for use of proceeds, which includes financing or re-financing of new and/or existing capital projects that meet the City’s environmental objectives, in addition to other criteria described in the City’s Green Bond Framework.

Following the identification of eligible projects, the Corporate Finance and Environment & Climate divisions verify the suitability of projects by reviewing the expected climate and resilience impacts. After the projects have been verified, the City follows its current debt issuance procedure with the Mayor, or the Mayor’s Alternate and the Chief Financial Officer authorizing the issuance of debt. In 2023, five major project groups received funding across three of the seven eligible green bond categories. The table below shows the program areas that received funding from green bonds since 2018.

Critical Steps to Net Zero	
	<b>Demonstrate carbon accountability locally and globally by establishing a carbon budget.</b>
	<b>Accelerate a rapid and significant reduction in fossil (natural) gas use in buildings.</b>
	<b>Increase access to low carbon transportation options, including walking, biking, public transit and electric vehicles.</b>
	<b>Increase local renewable energy to contribute to a resilient, carbon-free grid.</b>

Eligible Categories	2018 issuance	2019 issuance	2020 issuance	2021 issuance	2022 issuance	2023 issuance
Sustainable clean transportation	✓	✓	✓	✓	✓	✓
Renewable energy		✓				
Energy efficiency		✓	✓	✓		✓
Pollution prevention and using waste as a resource				✓		
Sustainable water and wastewater management						
Climate change adaptation and resilience		✓	✓	✓	✓	✓
Eco-efficient and/or circular economy principles integration						
Green buildings						



# Sustainable clean transportation

In Toronto's 2021 GHG emissions inventory, 35 per cent of GHG emissions were generated by transportation, with 68 per cent of those emissions attributed to personal vehicles. Investments in core and supporting infrastructure such as public transit and cycling systems will positively contribute to GHG reduction targets while improving the health, economic and social equity outcomes.

Year	Initiatives
2018	Union Station revitalization
	Scarborough subway extension
	Leslie Barns
	TTC subway fleet and infrastructure renewal and upgrades
2019	Cycling infrastructure
	TTC Infrastructure renewal and upgrades
2020	Cycling infrastructure
	TTC Infrastructure renewal and upgrades
2021	Purchase of electric buses
	TTC Infrastructure renewal and upgrades
2022	Cycling Infrastructure
	TTC Infrastructure renewal and upgrades
2023	Cycling Infrastructure
	TTC Infrastructure, upgrades and capacity improvements

Profiles for each of the six program areas are outlined in the subsequent pages.



# Expanding Cycling Infrastructure

Gasoline and diesel-powered vehicles significantly contribute to greenhouse gas emissions in Toronto. Embracing active transportation and low-carbon transit options not only reduce these emissions but also improves public health by decreasing air pollution and promoting physical activity. Transportation Services plays a pivotal role in executing the initiatives laid out in the Toronto Cycling Network Plan.

In 2023, Transportation Services advanced the City's cycling infrastructure by introducing 19.6 kilometers of new bikeways. In addition, they enhanced 16.8 kilometers of existing bikeways.

The effort to establish a secure and easily accessible cycling network relies on the upgrades and renovations outlined in the Cycling Network Plan. These initiatives involve various improvements, such as standardizing

road markings, converting bike lanes into dedicated cycle tracks and installing modular or permanent platforms at bus stops and loading zones. Additional enhancements will incorporate features such as poured-in-place concrete dividers and the integration of green infrastructure.

## **2023 Cycling deliverables (Bikeway Installations in kms):**

- 4.2 km of Multi-use Trails
- 7.3 km of Cycle Tracks (includes bi-directional tracks)
- 5.6 km of Bicycle Lanes (includes buffered and contra-flow)
- 2.5 km of Shared Lane Markings

## **Additional info about key projects completed in 2023:**

- 19.6 km of bikeway installations, including cycle tracks, multi-use trails, bicycle lanes (includes contra-flow) and wayfinding sharrows.
- 16.8 km of upgrades and renewals, including upgrades from bicycle lanes to cycle tracks, replacement of quick-build materials with permanent separation in cycle tracks and the addition of transit/bike or accessible loading platforms in protected bikeways.
- Completion of several projects, including:
  - The first phase of the Bloor Street West Complete Street Extension, which included installing cycle tracks and road safety upgrades between Runnymede Road and Aberfoyle Crescent. The second phase is planned for installation in 2024 and will extend west to Resurrection Road.



- Installation of the Douro-Wellington two-way protected cycle tracks between Blue Jays Way and King Street West, which will provide a connection between the future West Toronto Railpath Extension and bikeways in the downtown core.
- Upgrading the bicycle lanes on College Street to protected and raised cycle tracks between Bay Street and Manning Avenue and adding pedestrian safety features at intersections and integrated streetcar/bike platforms.
- Installation of several neighbourhood greenway routes, including the second phases of the Palmerston-Tecumseth and Bartlett-Havelock-Gladstone cycling connections projects and the Cabbagetown Cycling Connections project.



## New Bikeway Installations in Kilometres 2016-2023\*

Bikeway Type	2016	2017	2018	2019	2020	2021	2022	2023	Network Total
Multi-use Trails	3.5	4.0	4.8	1.8	2.8	1.7	2.0	4.2	<b>392.3</b>
Cycle Tracks (includes bi-directional tracks)	2.8	3.1	1.8	1.5	24.4	9.0	3.9	7.3	<b>86.2</b>
Bicycle Lanes (includes buffered and contra-flow)	0.7	4.2	5.4	1.3	5.7	8.7	5.4	5.6	<b>142.2</b>
Shared Lane Markings	1.1	0.6	3.2	0.6	2.8	3.3	6.5	2.5	<b>57.9</b>
<b>Total</b>	<b>8.1</b>	<b>11.9</b>	<b>15.2</b>	<b>5.2</b>	<b>35.7</b>	<b>22.7</b>	<b>17.8</b>	<b>19.6</b>	<b>678.6</b>

\*Along with the bikeway kilometres delivered in 2023, there were an additional 27 km of bikeway installations and upgrades under construction as of December 2023.



# TTC renewal and upgrades of public electric rail infrastructure

## TTC track maintenance and safety improvements

Through ongoing maintenance, technological advancements and capacity enhancements, the TTC remains committed to providing reliable, efficient and accessible transit services to meet the evolving needs of Toronto's residents and visitors. With a focus on accessibility and operational efficiency, the TTC works throughout the year to maintain and improve bridges, tunnels and rail tracks for subways and streetcars.

### In 2023:

- TTC's Subway Track Capital Program has seen the replacement of approximately 24,400 feet of rail, 980 ties, 5,940 feet of cover board and 86,700 feet of rail re-profiling. Additionally, significant efforts have been made through the Special Trackwork Rehabilitation Program, including one full turnout replacement and thirty-nine major maintenance projects.
- Surface Capital Program has seen the tangent track replacement of approximately 58,600 linear feet of rail. Additionally, significant efforts have been made to improve Special Trackwork, by replacing approximately 4,232 square meters (45,553 sq. feet) of intersections.





## Improving travel time and safety updates for 2023

The introduction of fully Automatic Train Control (ATC) operations on Line 1 on September 24, 2022, has resulted in significant enhancements to safety measures. Notably, the rate of speed control incidents has shown a consistent decline since the implementation of ATC. In 2017, Line 1 reported a staggering 1,941 speed control incidents, which dramatically reduced to only five incidents in 2023, representing an outstanding reduction of approximately 100 per cent. Moreover, ATC has effectively curbed Signal Violation incidents on Line 1, with only two reported incidents in 2023 compared to 251 incidents in 2017, marking a remarkable reduction of 99 per cent. Additionally, ATC has played a pivotal role in preventing Platform Overshoot incidents, with a notable decrease from 95 incidents in 2017 to 23 incidents in 2023, marking a significant reduction of 76 per cent. These statistics highlight the undeniable contribution of ATC in enhancing safety standards and operational efficiency on Line 1.

Following the full commencement of Automatic Train Control (ATC) operations on September 24, 2022, new schedules were introduced in the fall of the same year to enhance travel time efficiency. In 2023, Line 1 operated seamlessly with full ATC coverage, eliminating any transition boundaries at Eglinton. This significant development ensured a more consistent and reliable travel experience for passengers, reflecting the effectiveness of the new schedules and the seamless integration of ATC technology into Line 1 operations.

## Bloor-Yonge Improvements

The TTC is actively advancing its Bloor-Yonge Capacity Improvements (BYCI) project, aiming to enhance Bloor-Yonge Station to accommodate present and future ridership needs. The endeavor entails redesigning and expanding the station, including the addition of a new Line 2 platform and enlarging existing Line 1 platforms. Moreover, enhancements will be made to the concourse level, entrances, exits and accessibility features to improve overall station functionality.

In March 2024, the TTC initiated the process of selecting a qualified contractor for the Bloor-Yonge renovations by releasing a Request for Proposals (RFP). Teams that passed the pre-qualification stage conducted last year are now invited to submit their proposals. The TTC anticipates awarding the contract by the end of 2024, with construction slated to commence in 2026.

Currently, efforts are underway to relocate hydro utilities along Bloor Street East to make space for the future expanded Bloor-Yonge Subway Station. This utility work is scheduled to continue until the end of 2024, with no expected disruption to subway services.







# Greenhouse gas reductions

## Annual emissions avoided by public transit vehicle type\*

	eCO <sub>2</sub> reduced* (tonnes)			
	2020	2021	2022	2023
Streetcar	24,296	20,169	30,829	35,828
Subway	189,520	146,542	262,228	350,292
Total	213,816	166,711	293,058	386,119

\* The GHG reductions are estimated by calculating per passenger emissions for each transit vehicle type and comparing it to the emissions from a typical single-occupant passenger vehicle

### Notes:

- The GHG reductions are estimated by estimating emissions for each transit vehicle type based on rated vehicle efficiencies and comparing them to the emissions that would have occurred if all passenger-kilometers travelled on subway and streetcar were instead completed using a gasoline single-occupant passenger vehicle.
- 2023 emissions use the preliminary 2023 emissions factor for electricity from Canada's 2023 National Inventory Report
- Electricity emissions factors were updated for 2020-2022 to reflect those reported in Canada's 2023 National Inventory Report
- Emissions estimates do not include land use or traffic congestion considerations.





# Climate change adaptation and resilience

The Port Lands is currently home to a variety of industrial, port, film and creative sector businesses. Adjacent to downtown Toronto, intensification pressures have been inhibited by flood risk and soil contamination. Flood management and protection can enhance Toronto's resilience and help mitigate the impact of climate change on the city through the creation of new mixed-use communities, featuring naturalized areas and served by transit.



## Port Lands Flood Protection project update (Financing provided within 2019-2022 Green Bond)

Port Lands Flood Protection is about taking action to protect Toronto's southeastern downtown area. In an extreme weather event, floodwaters from the Don River would overwhelm portions of the Port Lands, South Riverdale and Leslieville. Toronto's Port Lands is considered one of the largest underdeveloped stretches of downtown waterfront in North

America. Up until now we have been unable to make this industrial area a thriving part of our city because portions are at risk of flooding and the soil is contaminated. By the end of 2024, Port Lands Flood Protection will create two new outlets for the existing river so that floodwaters can run off into the inner harbour instead of damaging the surrounding neighbourhoods. This work involved digging a kilometer-long river valley, which ends in a new mouth for the Don River and cleaning up polluted land. It creates new roads, bridges, utilities and public trails, plus 25 hectares of publicly accessible greenspace and parkland.

### Progress in 2023 includes:

- Fully opening the realigned Cherry Street and vehicular, pedestrian and cycling bridge over the Keating Channel from Lake Shore Blvd East south to Commissioner Street
- Re-opening Commissioner Street and bridge over the new river valley
- Completing construction of and flooding of the river valley and beginning the excavation of the north plug to link the new valley to the Don River
- Awarding the contract for, and commencing the demolition of, the old Cherry Street lift bridge
- Completing several required utility relocations including water, stormwater and gas infrastructure
- Completing removal of the dock wall along the south side of the Polson Slip
- Completed wall construction that will support the promontory in Promontory Park and commenced earthmoving related to the creation of Promontory Park





# Transform TO Renewable Thermal Energy Program

The Renewable Thermal Energy Program will increase renewable and thermal energy capacities in the City of Toronto facilities/properties by promoting and financing the implementation of existing and innovative technologies.

## Emergency Medical Services Headquarters Project

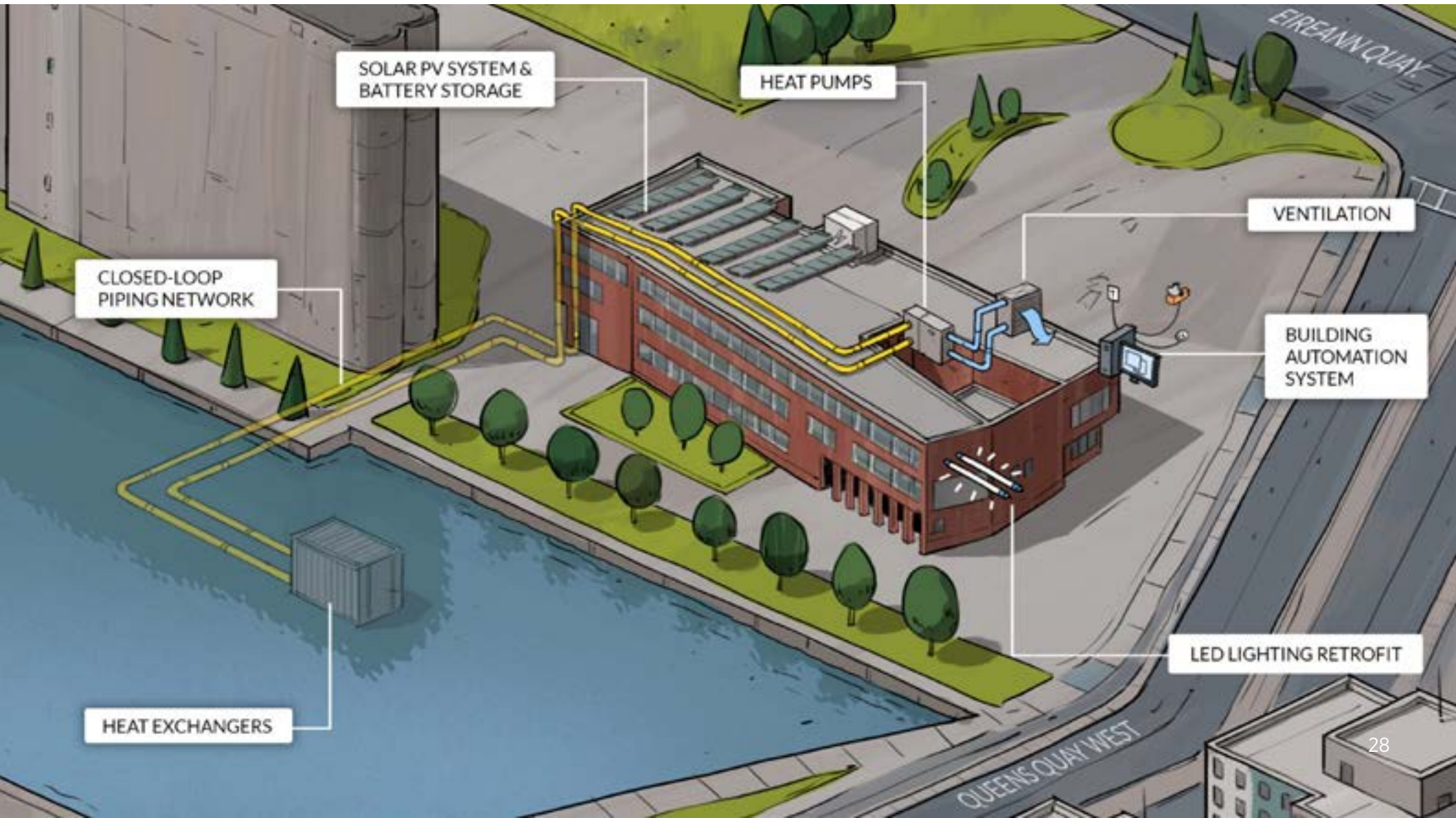
The Emergency Medical Services Headquarters (EMS HQ) in Toronto underwent a comprehensive deep energy retrofit project, making it one of the most energy-efficient buildings in Toronto. This initiative aligns with the TransformTO Net Zero Climate Action Strategy and the City's goal to eliminate community-wide emissions by 2040. By significantly reducing energy consumption and greenhouse gas emissions, the EMS HQ contributes to mitigating the primary source of emissions in Toronto, which is buildings' fossil fuel combustion for heating. Once complete, the EMS HQ will consume 55 per cent less energy, emit 72 per cent fewer greenhouse gas emissions and generate clean electricity locally. The installation of a solar PV array atop the existing parking garage, the city's largest solar PV carport, will produce 500,000 kWh of clean electricity annually, equivalent to the usage of 50 single-family homes. This initiative reduces operational costs and enhances user comfort, maintenance efficiency and the building's critical asset status.



## City Waterfront Building - 627/635 Queens Quay W.

The City implemented a comprehensive energy retrofit project at the City Waterfront Building on 627/635 Queens Quay W. This retrofit aligns with the TransformTO Net Zero Climate Action Strategy and the City's goal of achieving net-zero community-wide emissions by 2040. The retrofit, executed in three stages, resulted in significant environmental benefits, including a 71 per cent reduction in energy usage, an 83 per cent decrease in greenhouse gas emissions and decreased operational

costs. Additionally, the project positions the building as a sustainability model, showcasing its potential for other structures aiming to reduce emissions through energy efficiency and renewable energy measures. Users of the building will experience improved comfort and the retrofit promotes clean, decentralized energy generation, simplifies operations and maintenance and enhances overall energy efficiency.





# Energy Conservation and Demand Management (ECDM)

The Energy Conservation and Demand Management Plan (ECDM) identified City facilities with potential for energy conservation initiatives. Implementation of the ECDM Plan over 2017-2020 resulted in 827 tonnes of annual CO<sub>2</sub>e reductions due to lighting retrofits across 12 different buildings. Several ongoing retrofit projects with the potential for an additional 2,116 tonnes of annual CO<sub>2</sub>e reductions are scheduled to be completed in 2023.





# Scarborough Waterfront Brimley Road South Multi-use Trail Design


Scarborough Waterfront Project (SWP) will create a system of greenspaces along the Lake Ontario shoreline which respect and protect the significant natural and cultural features of the Bluffs, enhance the terrestrial and aquatic habitat and provide a safe and enjoyable waterfront experience.

## **Brimley Road South Multi-Use Trail Project**

The Brimley Road South Multi-Use Trail Project will provide safe pedestrian and cyclist access to Bluffer's Park for thousands of annual visitors. Development of a multi-use trail for pedestrians and cyclists along the east side of Brimley Road South, starting at Barkdene Hills, is a critical element associated with the SWP West Segment that will allow users to safely access Bluffer's Park to enjoy the future shoreline. This new multi-use trail will connect to the City's larger cycling network infrastructure.

Through 2023, the project team revised the design to incorporate comments received from members of the local community. Following these modifications, the milestone 90 per cent detailed design phase was achieved at the start of 2024. The project is targeting completion by the end of 2024, pending the incorporation of final technical comments on the design package. The project team is currently working to acquire various permits and approvals required to advance construction.





# European Union (EU) Environmental Objectives and Sustainable Development Goals

The City is actively exploring ways to enhance its green bond issuance, with a specific emphasis on harmonizing with the EU sustainable finance framework and taxonomy. This framework encompasses six climate and environmental goals that guide the identification of sustainable projects. Although Canada is in the initial stages of establishing its own sustainable finance framework and taxonomy, progress is underway through the formation of the Taxonomy Technical Experts Group (TTEG). Acknowledging the EU framework as a burgeoning green standard, the Canadian government is contemplating adopting a similar framework and taxonomy to advance its efforts in categorizing sustainable projects.

Additionally, the City is contemplating aligning its green bond issuance with the UN's Sustainable Development Goals (SDGs) to enhance their positive impacts and pinpoint the direct contributions of projects to specific sustainability targets. This alignment would provide investors with greater assurance that their investments support projects addressing critical global challenges such as climate change mitigation, access to clean energy, sustainable infrastructure and social inclusion. Moreover, it would promote transparency and accountability in the utilization of funds for sustainable development.

Outlined in the following table is a comparison of the potential alignment between City-issued green bond projects with current EU environmental objectives and UNSDGs for the City's 2023 Issuance.

2023 Projects	EU Environmental Objectives	Sustainable Development Goals
Surface Track	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
Bridges and Tunnels	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
Subway Track	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
Subway Capacity Improvements	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
Power Distribution and Electrical Systems	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
Signal Systems	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11



2023 Projects	EU Environmental Objectives	Sustainable Development Goals
Cycling Infrastructure	1) Climate change mitigation 5) Pollution prevention and control	9, 11
Energy Conservation and Demand Management program	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
Renewable Thermal Energy Program	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
Scarborough Waterfront Project	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control 6) The protection and restoration of biodiversity and ecosystems	11, 15



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