City of Toronto

Green Bond Newsletter

July 2025

TORONTO

Live green Toronto

A message from the Chief Financial Officer and Treasurer

The City of Toronto's innovative Green Bond program continues to finance initiatives to reduce greenhouse gas (GHG) emissions, transforming Toronto into a low-carbon city. This 2025 Green Bond Newsletter illustrates the transformative projects that we are executing as part of this continued commitment to climate action.

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. Also embedded in our ambitious climate action strategy is our resolve to integrate Environmental, Social and Governance (ESG) factors throughout the organization.

City projects, programs, policies and investments must contribute to our strategic priorities, including reducing GHG emissions by 2040 and increasing Toronto's climate resilience. Before proceeding, every capital project at the City is assessed through a climate lens to consider its potential impacts on GHG emissions and Toronto's determination to increase our ability to face of climate change and extreme weather.

Despite an ongoing 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.

Toronto residents and investors alike will be pleased to learn that the proceeds from our most recent Green Bond are helping to build a Toronto that prioritizes people and the planet. The Green Bond program has helped to support municipal infrastructure investments in sustainable clean transportation, renewable energy, energy efficiency and climate change adaptation and resilience. Projects include cycling infrastructure, TTC infrastructure, upgrades and capacity improvements, ferry boat replacement, the West Toronto rail path extension, the Glen Road pedestrian bridge, Dufferin organics processing facility renewable natural gas infrastructure, deep energy retrofits, TCHC combined heat and power generators, city-wide environmental initiatives and the Port Lands flood protection project.

We're working hard to make Toronto an environmental leader and a resilient city for current and future generations by proactively addressing climate change.

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

Sincerely,

Stephen Conforti
Chief Financial Officer and Treasurer
City of Toronto

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

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 2025.

2018 Green Bond

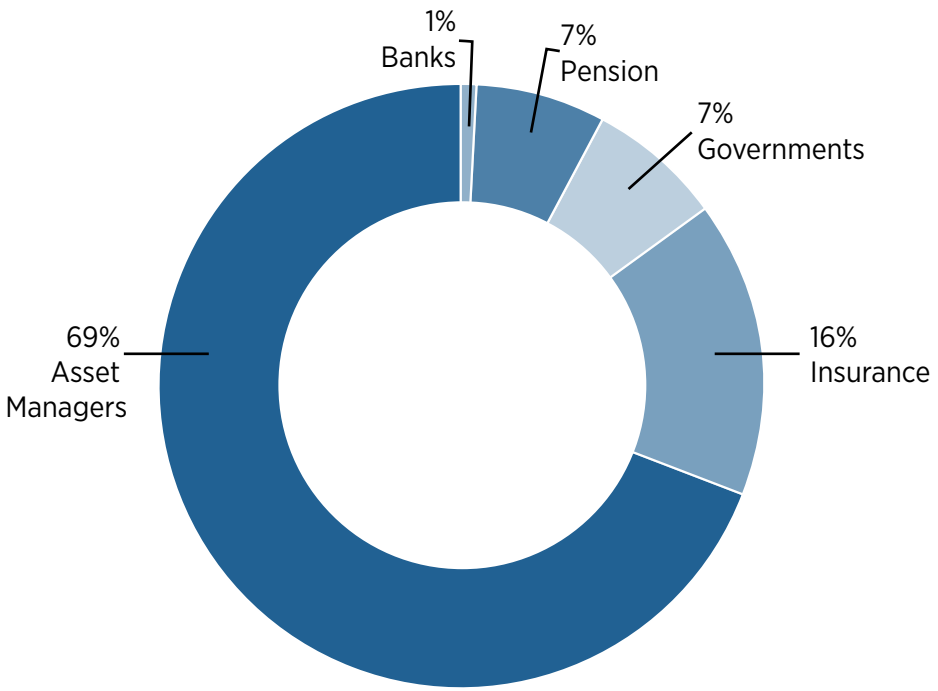
As a part of the City's (AA/Aa1/AA) overall capital borrowing program, the City initiated a Green Bond Program in 2018. Under the Program, net proceeds from bonds are used to fund Council approved capital projects that align with TransformTO, Toronto's Climate Action Strategy.

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

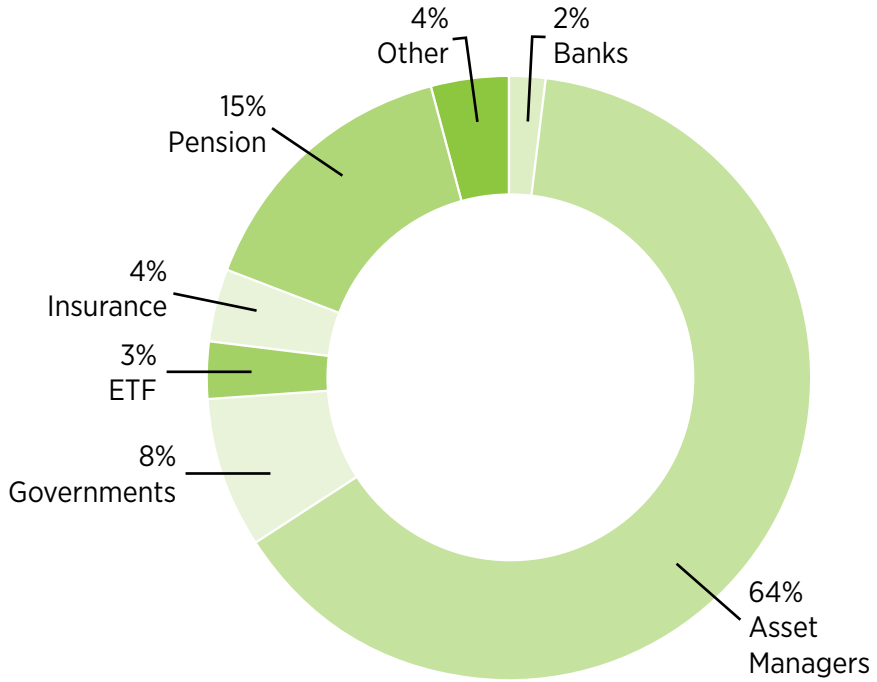
On September 9, 2019, the City successfully issued another C$200 million green bond. The bond was priced to yield 2.646 per cent with a September 2039 maturity.

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



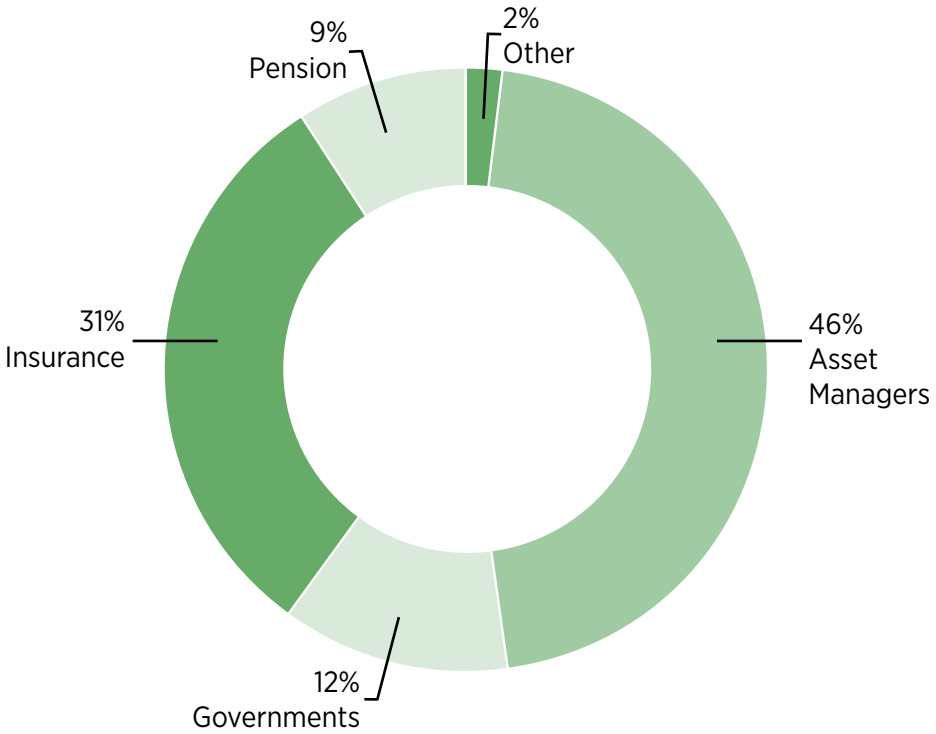
2020 Green Bond

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



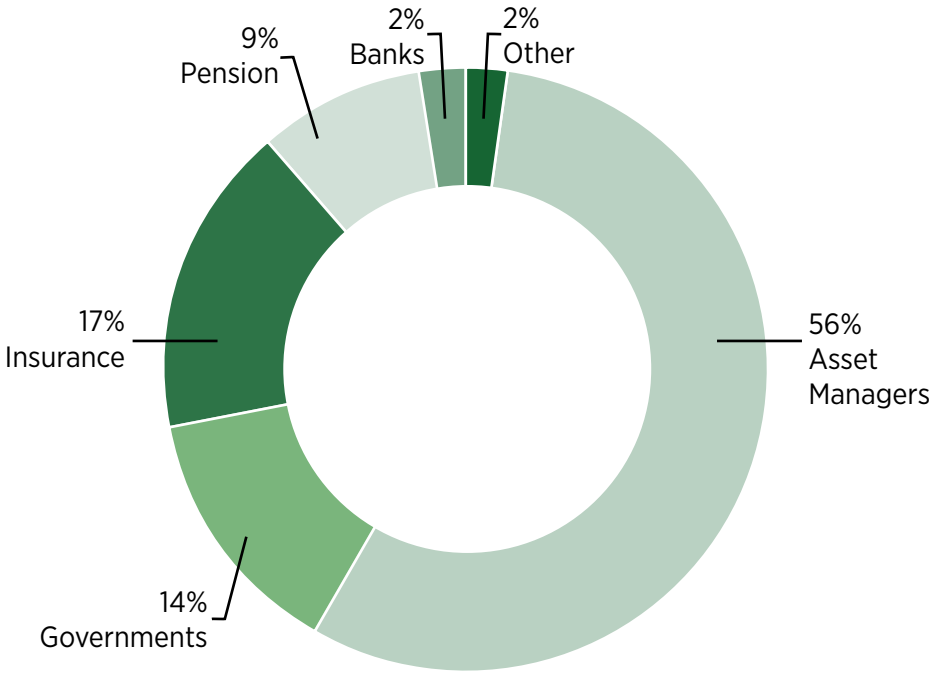
2021 Green Bond

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



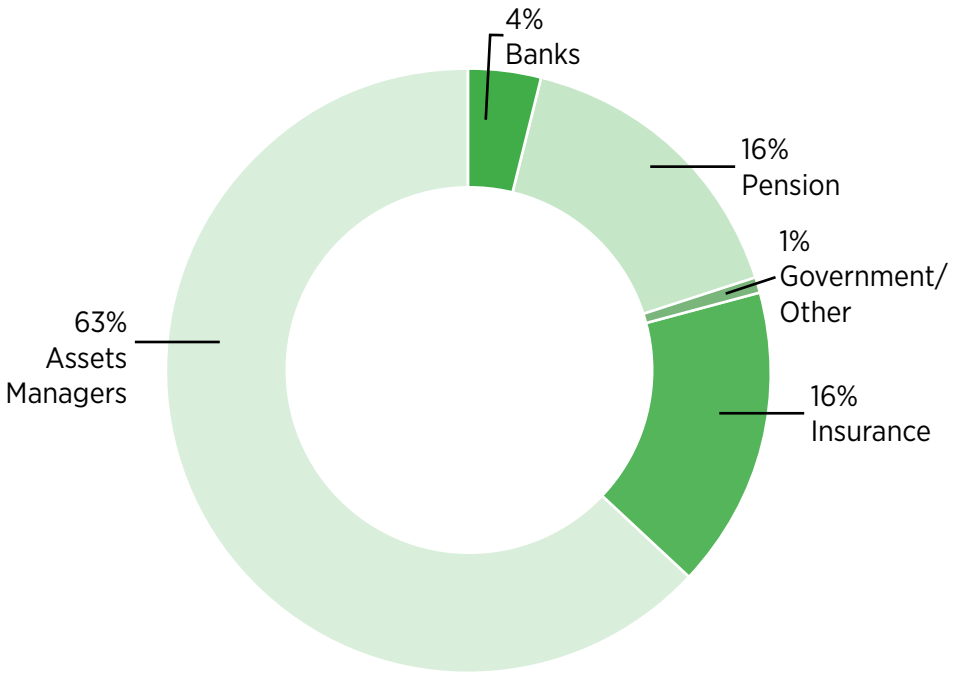
2022 Green Bond

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



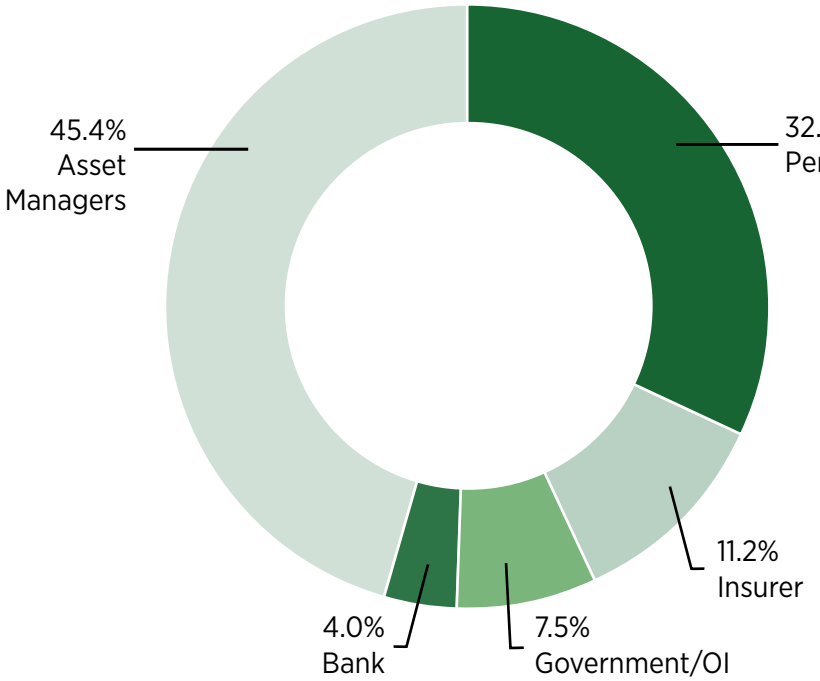
2023 Green Bond

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



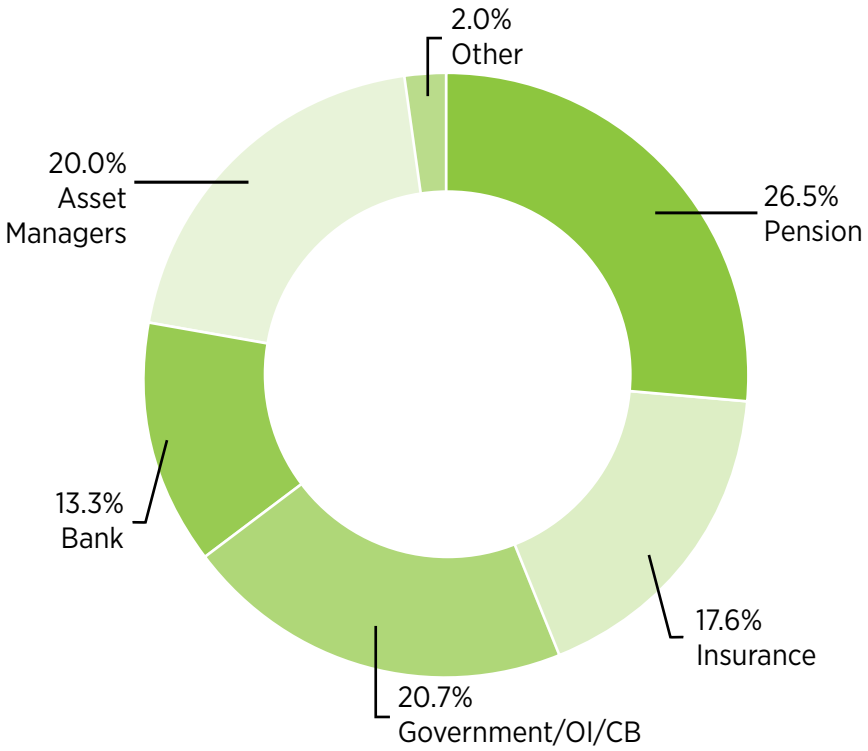
2024 Green Bond

On November 14, 2024, the City successfully issued a C$200 million green bond. The bond was priced to yield 4.029 per cent with a December 2, 2034 maturity.

Net proceeds from the 2024 green bond issuance are funding eligible projects for cycling infrastructure, TTC infrastructure, upgrades and capacity improvements, ferry boat replacement, West Toronto rail path extension, Glen Road pedestrian bridge, Dufferin organics processing facility renewable natural gas infrastructure, deep energy retrofits, TCHC combined heat and power generators, city-wide environmental initiatives and the Port Lands flood protection project.

The issue was over-subscribed with orders from 37 domestic and international investors.

2024 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
Sustainable clean transportation			
Supporting infrastructure			
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%
Fleet			
Purchase of subway cars	26,700	26,700	100%
Total	300,000	300,000	100%

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
Sustainable clean transportation			
Supporting infrastructure			
Cycling infrastructure	24,353	24,353	100%
Surface track	4,694	4,694	100%
Energy efficiency retrofits			
Social housing revitalization and retrofit	111,961	111,961	100%
Community energy efficiency projects	14,884	14,884	100%
Climate change adaptation & resilience			
Port Lands flood protection	44,108	44,108	100%
Total	200,000	200,000	100%

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
Sustainable clean rransportation			
Subway track	8,773	8,773	100%
Energy efficiency retrofits			
TCHC multi-year retrofit	9,239	9,239	100%
Climate change adaptation & resilience			
Port Lands flood protection	111,988	111,988	100%
Total	130,000	130,000	100%

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
Sustainable clean transportation			
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%
Energy efficiency retrofits			
TCHC multi-year retrofit	9,200	9,200	100%
Climate change adaptation & resilience			
Port Lands flood protection	5,781	5,781	100%
Pollution prevention and using waste as a resource			
Dufferin SSO facility	32,491	32,491	100%
Total	150,000	150,000	100%

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
Sustainable clean transportation			
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%
Climate change adaptation & resilience			
Port Lands flood protection	71,625	71,625	100%
Total	300,000	300,000	100%

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
Sustainable clean transportation			
Cycling Infrastructure	9,947	9,947	100%
TTC Infrastructure, upgrades and capacity improvements	68,304	68,304	100%
Energy Efficiency			
Renewable Thermal Energy Program	12,074	12,074	100%
Energy Conservation Demand Management	5,401	5,401	100%
Climate change adaptation & resilience			
Scarborough Waterfront Project	4,274	4,274	100%
Total	100,000	100,000	100%

Use of proceeds – 2024 Green Bond

All bond proceeds have been disbursed for the 2024 green bond. Proceeds from green bonds are assigned to specific projects at the time of issuance and listed in the debenture by-law #1273-2024.

Project name	Total allocation ($000s)	Funds disbursed ($000s)	% disbursed
Sustainable clean transportation			
Cycling Infrastructure	24,299	24,299	100%
Bridges and tunnels	5,315	5,315	100%
Signal Systems - Various	16,335	16,335	100%
Yonge-Bloor Capacity Improvement	9,741	9,741	100%
Purchase of buses	93,146	93,146	100%
Ferry Boat Replacement	754	754	100%
West Toronto Railpath Extension	180	180	100%
Glen Road Pedestrian Bridge	812	812	100%
Renewable Energy			
Biogas Utilization - Dufferin	1,413	1,413	100%
Energy Efficiency			
Deep Energy Retrofits - Polit	1,021	1,021	100%
TCHC Combined Heat and Power Generators	12,860	12,860	100%
Climate change adaptation and resilience			
Deep Energy Retrofits - Polit	2,483	2,483	100%
TCHC Combined Heat and Power Generators	31,641	31,641	100%
Total	200,000	200,000	100%

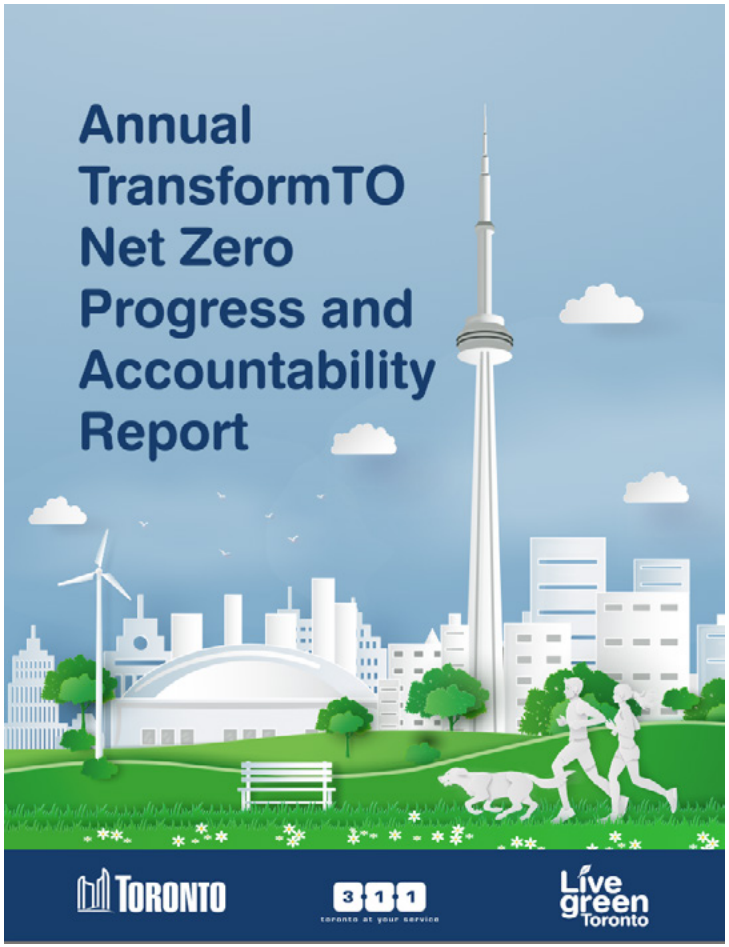
TransformTO – Toronto's climate action strategy

TransformTO is the City's ambitious climate action strategy. TransformTO seeks to reduce greenhouse gas (GHG) emissions community-wide while improving social equity, health, resilience 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. The City has identified critical steps for success in achieving the City's climate goals:

1. Demonstrate carbon accountability locally and globally by establishing a carbon budget.
2. Accelerate a rapid and significant reduction in fossil (natural) gas use in buildings.
3. Increase access to low-carbon transportation options, including walking, biking, public transit and electric vehicles.
4. Increase local renewable energy to contribute to a resilient, carbon-free grid.

Each year the City reports on progress toward achieving net zero emissions by 2040. Reporting includes an update on the critical steps, the status of actions from the NZS Short-term Implementation Plan, and 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 TransformTO Net Zero Strategy 2024 Annual Report on progress. 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.

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

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 2024, 13 projects received funding across four of the seven eligible green bond categories. The table below shows the program areas that received funding from green bonds since 2018.

Eligible Categories	2018 issuance	2019 issuance	2020 issuance	2021 issuance	2022 issuance	2023 issuance	2024 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 2022 GHG emissions inventory, 35 per cent of GHG emissions were generated by transportation, with 66 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

Year	Initiatives
2022	Cycling Infrastructure
	TTC Infrastructure renewal and upgrades
2023	Cycling Infrastructure
	TTC Infrastructure, upgrades and capacity improvements
2024	Cycling Infrastructure
	TTC Infrastructure, upgrades and capacity improvements
	Ferry Boat Replacement
	West Toronto Railpath Extension
	Glen Road Pedestrian Bridge

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 2024, Transportation Services in Toronto advanced the City's cycling infrastructure by introducing 26.7 kilometers of new bikeways. In addition, they enhanced 11.5 kilometers of existing bikeways.

The effort to establish a secure and easily accessible cycling network lies in 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. Additionally, enhancements will incorporate features like poured-in-place concrete dividers and the integration of green infrastructure.

2024 Cycling deliverables (Bikeway Installations in kms):

- 26.71 km of bikeway installations, including:
  - 4 km of multi-use trails
  - 11 km of cycle tracks
  - 4.1 km of bicycle lanes (including contra-flow bicycle lanes)
  - 7.6 km of wayfinding sharrows

Additional info about key projects completed in 2024:

- Completion of several projects, including:
  - Major bikeway upgrade projects on Bloor Street West, between Spadina Avenue and Avenue Road, and the west side of University Avenue, between College Street and Dundas Street West. These projects feature permanent raised cycle tracks that replaced temporary quick-build materials, widened sidewalks and made accessibility upgrades. The City's first protected intersection in the downtown core was constructed at St. George Street and Bloor Street West, which features concrete corner islands, shortened crosswalks, reduced turning radii and bicycle signals. The intersection reduces conflicts between people cycling or pedestrians and people driving.
  - The first segment of Phase 1 of eglintonTOday Complete Street on Eglinton Avenue West from Avenue Road to Chaplin Crescent. This project includes cycle tracks separated from the roadway with pre-cast concrete curbs, sidewalk repairs and new 24/7 parking. The remainder of Phase 1 between Bicknell Avenue and Mount Pleasant Road is planned to be installed in 2025 and will also feature bikeways and other road safety features.

  - The addition of Neighbourhood Greenway routes, including Leaside Bridge to Danforth Avenue Cycling Connections, West Parkdale Cycling Connections and the first phase of Weston Cycling Connections. These projects are located on streets where pedestrians and people cycling are given priority over motor vehicles, and include speed management features, one-way streets, raised crossings, contra-flow bicycle lanes, traffic diverters, wayfinding signage and safe crossings of major roadways bikeways.
- Small-scale civil construction upgrades in existing bikeways, including:
  - Protected corner islands or bioretention planters on the Palmerston-Tecumseth Cycling Connections route to deter drivers from entering the bikeway while adding green infrastructure and enhancing the public realm.
  - Accessible integrated bike and bus platforms in the Davenport Road bike lanes, which keep the bikeway clear for people cycling, while providing sidewalk-level access for people boarding and exiting TTC buses.

New Bikeway Installations in Kilometres 2016-2024*

Bikeway Type	Existing Network	2016	2017	2018	2019	2020	2021	2022	2023	2024	Network Total
Multi-use Trails	367.9	3.5	4.0	4.8	1.8	2.8	1.7	2.0	4.2	4.0	**396.7**
Cycle Tracks (includes bi-directional tracks)	39.5	2.8	3.1	1.8	1.5	24.4	9.0	3.9	7.3	11.0	**104.3**
Bicycle Lanes (includes buffered and contra-flow)	99.1	0.7	4.2	5.4	1.3	5.7	8.7	5.4	5.6	4.1	**140.2**
Shared Lane Markings	61.7	1.1	0.6	3.2	0.6	2.8	3.3	6.5	2.5	7.6	**89.9**
Total	**568.2**	**8.1**	**11.9**	**15.2**	**5.2**	**35.7**	**22.7**	**17.8**	**19.6**	**26.7**	**731.1**

*Along with the 26.7 km of bikeways delivered in 2024, there were an additional 25 km of bikeway installations and upgrades under construction as of December 2024.

TTC Green Bus program and renewal and upgrades of public electric rail infrastructure

Electrifying the TTC bus fleet

TTC's Green Fleet Plan provides a road map for the TTC to achieve TransformTO's target of reducing GHG emissions to net zero. The Green Fleet Plan includes the procurement of zero emission buses and the electrification of the Wheel-Trans bus and Operational Support Vehicle fleets. The TTC procured a total of 60 battery electric buses (eBuses) in 2019 and 2020, and an addition 17 eBuses in 2024, all of which are now in service. A total of 340 eBuses are being delivered, bringing the total to 400 eBuses in service by 2026. In 2024, the TTC eBus fleet has accumulated more than one million in-service kilometers. Given Ontario's relatively low-carbon electricity grid, electrifying TTC buses brings almost all of the TTC's operational emissions closer to zero carbon emissions while providing safe, affordable transportation across Toronto and keeping the Toronto's air clean.

TTC track maintenance and safety improvements

In 2024, the Toronto Transit Commission's Subway Track Capital Program successfully completed the replacement of 19,350 feet of rail, 1,100 ties, and 1,100 feet of re-insulation, alongside the re-profiling of 82,000 feet of rail. Furthermore, the Special Trackwork Rehabilitation Program achieved notable progress, with eight full turnout replacements and 16 major turnout maintenance activities completed.

Improving travel time and safety updates for 2024

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 eight incidents in 2024, representing an outstanding reduction of more than 99 per cent. Moreover, ATC has effectively curbed Signal Violation incidents on Line 1, with zero reported incidents in 2024 compared to 251 incidents in 2017, marking a remarkable reduction of 100 per cent.

Additionally, ATC has played a pivotal role in preventing Platform Overshoot incidents, with a notable decrease from 95 incidents in 2017 to 24 incidents in 2023, marking a significant reduction of 75 per cent. These statistics highlight the undeniable contribution of ATC in enhancing safety standards and operational efficiency on Line 1.

Bloor-Yonge Improvements

The TTC is continuing to advance the Bloor-Yonge Capacity Improvements (BYCI) project, which will improve the passenger experience at Bloor-Yonge Station and accommodate future ridership growth. The project involves expanding the station, including the addition of a new Line 2 eastbound platform and expanding the existing Line 1 northbound and southbound platforms. A new entrance to the station will also be built at 81 Bloor Street East, and enhancements will be made to the concourse level, entrances, exits, and accessibility features to improve overall station functionality.

The first phase of preparatory utility work, which included hydro and sewer relocations, commenced in January 2024 and was completed in October 2024. This work was necessary to provide space for the expanded station footprint.

As part of the preparatory work, a public art mural was installed at 830 Church St. – site of a future fan plant for the expanded Bloor-Yonge Station – along the Sherlock Holmes Walk. The project was completed in two phases in partnership with StreetARToronto, the Friends of the Arthur Conan Doyle Collection and the Toronto Public Library. A public launch event was hosted at the Toronto Reference Library on November 29, 2024.

On February 24, 2025, the TTC Board approved the award of the Progressive Design-Build Development Phase to Kenaidan Murphy Joint Venture (KMJV), followed by the execution of the Development Phase Agreement on March 24, 2025. The project has now entered the Development Phase, which will last approximately two years. The Implementation Phase of the project is currently proposed to start in 2027.

Greenhouse gas reductions

Annual emissions avoided by public transit vehicle type*

	Equivalent CO_2 reduced* (tonnes)				
	2020	2021	2022	2023	2024
Streetcar	24,296	20,169	30,829	35,828	29,280
Subway	189,520	146,542	262,228	350,292	288,450
Total	**213,816**	**166,711**	**293,057**	**386,120**	**317,730**

* 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.
- Emissions factors were sourced from Canada's 2023 National Inventory Report
- Emissions estimates do not include land use or traffic congestion considerations.

Ferry Boat Replacement

The Ferry Electrification Project will replace Toronto's aging diesel-powered ferry fleet with 100 per cent battery-electric vessels. Two new electric ferries—currently under design and construction—are scheduled to arrive in Toronto in November 2026 and March 2027, with two additional vessels planned for delivery in the early 2030s. To support these ferries, dedicated charging and docking infrastructure is being built at the Jack Layton Ferry Terminal. Once operational, the electric ferries are expected to cut greenhouse gas emissions by approximately 2,885 tonnes per year, eliminate local air pollutants, and reduce noise levels. The project's success will be measured by delivering all vessels on time and on budget; completing the shoreside charging and docking facilities before the ferries arrive; demonstrating increased passenger capacity and reduced wait times; and garnering strong public enthusiasm and satisfaction through passenger surveys and community feedback.

West Toronto Railpath Extension

The West Toronto Railpath Extension is a new 2.1 km multi-use trail that will extend the existing Railpath south from Dundas Street West to Sudbury and Abell Streets alongside the Kitchener GO Corridor. Designed as a shared space for cyclists, pedestrians, and mobility-device users, the project includes four new pedestrian/cyclist bridges, eleven community connections and extensive landscape enhancements—trees, vines, shrubs and hedges—to bolster the corridor's ecological value. By linking directly to Bloor GO Station, soon-to-come transit stops, numerous bus and streetcar routes (including the 511, 504, 501, 505, 506, 47, 29, and 63), schools, parks, employment hubs and community centres, the extension will reduce automobile dependency, improve air quality, and protect natural corridors. Success will be measured through on-time, on-budget completion; trail usage counts and connectivity metrics; the establishment and survival rates of new plantings; and user satisfaction surveys. On behalf of the City of Toronto, Metrolinx will design and construct the Railpath Extension.

Glen Road Pedestrian Bridge

The City is replacing the aging Glen Road Pedestrian Bridge and adjacent tunnel between Rosedale and St. James Town with a wider, safer and fully accessible connection. The project includes a new steel-girder bridge over Rosedale Valley, a reconstructed tunnel under Bloor Street East, and redesigned public space with landscaping, lighting and public art near Sherbourne Station. Once complete in spring 2025, the route will better serve pedestrians, cyclists and mobility-device users, while supporting climate goals by encouraging active transportation and reducing car dependency. The new infrastructure enhances connectivity, improves safety and strengthens neighbourhood ties.

Renewable Energy

Dufferin Organics Processing Facility Renewable Natural Gas Infrastructure

The City, working with Enbridge Gas Inc., has installed infrastructure at the Dufferin Organics Processing Facility that allows it to create renewable natural gas (RNG) from Green Bin organics. The infrastructure enables the City to take the raw biogas produced from processing Green Bin organics, turn it into RNG and inject it into the natural gas grid for City use.

As per the strategy that was approved by City Council in 2020, the RNG produced is blended with the natural gas that the City buys to create a lower-carbon fuel blend that is used across the organization to power vehicles and heat City-owned facilities, allowing for a reduction in greenhouse gas emissions.

Based on its designed capacity, the project has the following potential impact:

RNG produced (created)	Project-related emissions reduction (tonnes CO_2e)
1,871,805 m^3/year	5,068 tCO_2e/year

Energy Efficiency

Toronto Community Housing Corporation (TCHC) Combined Heat and Power Generators

Five years ago, TCHC launched its CHP initiative under the City's Sustainable Energy Plan Financing program, supplemented by IESO net-metering incentives, TCHC capital contributions and Save on Energy support.

Originally installed in 39 buildings, the CHP fleet now comprises 44 systems. By generating on-site electricity and capturing waste heat, these systems maintain elevators, heating, water, lighting, security systems and community coordination spaces during area-wide outages—providing "safe haven" resilience during ice storms or grid failures.

Operational & Environmental Impact

Local CHP plants achieve up to twice the overall efficiency of large combined-cycle grid plants (e.g., the Port Lands Energy Centre) by utilizing both electricity and thermal outputs where they're consumed. Annual benefits include tens of thousands of megawatt-hours of energy savings, several thousand kilowatts of peak demand reduction, and avoidance of thousands of tonnes of CO_2—alongside significant cost savings tracked under a third-party Measurement and Verification Plan.

Performance Monitoring & Strategic Alignment

A third-party Measurement and Verification Plan ensures transparent performance reporting to the City. This program advances the City's Resiliency Strategy goals (Home Resilience, Vertical Resilience, Leading a Resilient City) and supports TransformTO's community-wide GHG reduction target of an 80 per cent cut by 2050.

Deep Energy Retrofits – Pilot Project

The Deep Energy Retrofits – Pilot Project supports multiple net-zero initiatives aimed at reducing emissions across City-owned facilities. Current projects include the development of net-zero training videos for staff, feasibility studies, detailed design and deep retrofit construction work at 821 Progress Ave., 146 The East Mall and the historic St. Lawrence Market South. These retrofits are expected to deliver 50 to 80 per cent reductions in GHG emissions per site.

Both buildings are targeting upgrades to the existing mechanical systems, building envelope and electrical systems, including the Building Automation System. Additionally, solar PV installations are also being planned for the animal shelter sites as part of the upgrades.

The training resources developed as part of this project will build internal capacity by equipping City staff with the knowledge to identify and implement GHG reduction measures in future projects. Success will be measured through robust performance tracking. Third-party Measurement & Verification consultants are monitoring energy use and emissions at each retrofit site for 24 months post-completion to ensure that performance targets are achieved.

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 Toronto through the creation of new mixed-use communities, featuring naturalized areas and served by transit.

Port Lands Flood Protection project update

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 the city because portions are at risk of flooding and the soil is contaminated. 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. In 2024, the new river was completed with the removal of the 'north plug'.

Progress in 2024 includes:

- Fully opening the realigned Cherry Street and vehicular, pedestrian and cycling bridge over the Keating Channel from Lake Shore Boulevard 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
- Removing the 'west plug', an underwater cutoff wall that separated the new river valley from Lake Ontario
- Removing the 'north plug', an underwater cutoff wall that separated the new river valley from the existing river and Keating Channel
- Awarding the contract for, and completing the demolition of, the old Cherry Street lift bridge over the Keating Channel
- Completing a number of required utility relocations including water, stormwater and gas infrastructure
- Completing removal of the dock wall along the north side of the Polson Slip
- Commenced earthmoving related to the creation of Biidassige Park
- Commencing the installation of subsurface infrastructure in Biidassige Park
- Completing the installation of some playground structures, including a giant snowy owl and raccoon, along with the foundations for swing sets, zip lines and a water-play feature
- Commencing the refurbishment of the Historic Fire Hall 30
- Commencing the refurbishment of the Historic Atlas Crane
- The connection between the greenway and the shipping channel at the 'South Plug' is underway with the new dockwall in place, the carp gate under construction and the earthworks in progress.

City Wide Environmental Initiatives

Supporting Resilient Natural Spaces Across Toronto

The City-Wide Environmental Initiatives project provides funding for environmental initiatives categorized under six different streams, Ravine Strategy, Ravine Forest Management, Small Scale Green Infrastructure Renewal Projects, Natural Environment Trails, Horticulture, Erosion Control and Planning for Asset Management in Natural Area Parks.

- The Ravine Strategy stream supports a variety of projects related to Toronto's Ravine Strategy, such as: the creation of an ESA management plan framework, the development and installation of wayfinding signage, and a monitoring program that helps assess the ecological health of ravine areas.
- Ravine Forest Management addresses some of the forest management needs in naturalized parks. It funds initiatives throughout the City to remediate and revitalize forest health – primarily through the removal of invasive species and re-planting using trees and shrubs grown from locally sourced seeds.
- Small Scale Green Infrastructure Renewal Projects involve the development and refurbishment of green infrastructure in natural environment and ravine parks to provide access for the public while protecting the natural environment. These projects are city wide and often include interpretive and educational components.
- The Natural Environment Trails program focuses on protecting the woodlands and ravine features from developing erosion problems caused by excessively wide and poorly located trails, by funding design and construction of trails that are sustainable.
- Horticultural capital improvement projects support the growing of ornamental plants and the rejuvenation of horticulture areas/beds throughout the City. These gardens support pollinator species that are critical to maintaining the health and biodiversity of plants and trees.

- Erosion control focuses on Toronto parklands sites that include many areas of hazard lands (steep ravine slopes and bluffs) and landfill (closed landfills as well as areas of local fill placement on private and public lands). These parklands periodically fail in association with developments or factors of natural erosion. Natural slope erosion is compounded by failure of retaining structures, increased surface water runoff, point source runoff directed to slopes causing channelization, toe of slope erosion or streambank erosion caused by increased stormwater conveyance in natural watercourses and increased loading/weighting of upper slopes, causing failure.
- Lastly, Planning for Asset Management in Natural Environment Parks funds review of parkland uses to recommend future management of assets that is needed to ensure sustainability of natural environments while providing for current user requirements. Popular parks like High Park have more than one million visitors annually, providing a unique and unusual sense of wilderness in a major urban centre. Such parks also offer year-round recreation and cultural attractions and amenities, but periodically consultation and technical review is needed to fit in new uses or to maintain/replace/retire infrastructure (retaining walls, bridges etc.) in a way that retains the overall functionality and integrity of the green space. The initiative to define future management protocols and needs for Environmentally Significant Areas protected in the Official Plan, will continue.

Environmental Benefits

These projects focus on improvements to natural areas, including forest restoration as well as the building or restoring of natural infrastructure. Restoration work includes invasive species removal and replanting with native species grown from locally collected seed. Restoring native ecosystems supports species diversity and wildlife habitat and helps make the urban forest more resilient to climate change. Planning for Asset Management and Natural Infrastructure work such as trail building, and erosion control projects help to restore and protect natural ecosystems through design and installation work that mitigates the risks to the urban forest from future storm events caused by climate change.

Measuring Impact

Success is measured in several ways including: the number of invasive species removed, the number of hectares of land managed, the length of natural surface trails installed/improved and the number of native species planted. Additionally, the number of stakeholders and community members engaged in projects (tours, presentations, public meetings, consultations, social media/website posts etc.) is tracked and trail counter data is used to measure passive recreational usage of the areas. Finally, the City has developed a partnership with the University of Toronto whereby faculty and students in the Masters of Forest Conservation program have developed a monitoring program to establish and monitor plots across the City to assess the ecological health of the urban forest, which ultimately reflects on the success of the programmes.

Fostering Stewardship Through Education

Urban Forestry has very robust community engagement programs that connect residents of all ages with the natural environment. Programs are virtual, in -person and hands-on and aim to educate people about wildlife, tree planting and maintenance, as well as the benefits of the natural ecosystems. These programs are integral to helping protect the urban forest and natural ecosystems from the pressures of urban development as well as climate change.

European Union 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 European Union's (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 United Nations' (UN) 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 below is a comparison of the potential alignment between City-issued green bond projects with current EU environmental objectives and UNSDGs for the City's 2024 Issuance.

2024 Projects	EU Environmental Objectives	Sustainable Development Goals
Deep Energy Retrofits	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	7, 9, 11
TCHC Combined Heat & Power Generators	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	7, 9, 11
City Wide Environmental Initiatives	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11, 15
Ferry Boat Replacement	1) Climate change mitigation 5) Pollution prevention and control	9, 11
Biogas Utilization - Dufferin	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
TTC related projects	1) Climate change mitigation 2) Climate change adaptation 5) Pollution prevention and control	9, 11
West Toronto Railpath Extension	1) Climate change mitigation 5) Pollution prevention and control	9, 11

2024 Projects	EU Environmental Objectives	Sustainable Development Goals
Cycling Infrastructure	1) Climate change mitigation 5) Pollution prevention and control	9, 11
Glen Road Pedestrian Bridge	1) Climate change mitigation 5) Pollution prevention and control	9, 11
Port Lands Flood Protection	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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