

# PORTS TORONTO

2020

## Sustainability Report



Bike racks and maintenance station

AÉROPORT DE TORONTO  
**BILLY BISHOP**  
TORONTO CITY AIRPORT

**4749**  
medevac flights



**Marilyn Bell I**  
passenger/vehicle ferry  
conversions to  
**electric-power**

PORT OF  
TORONTO



**2.2 million metric tonnes**  
delivered to Port



**30,000 cubic metres**  
Dredging and wetland creation



**24/7 Harbour  
Hotline**  
(416-462-3937)



**84,854**  
pieces of anthropogenic debris were  
diverted from Lake Ontario through  
the PortsToronto Seabin Program.



**100% Recyclable**

Seabin construction is  
100% recyclable.

*Marina*  
DE L'AVANT-PORT

**10 years**

Green Anchors Gold rating in  
the Clean Marine

PORTS  
TORONTO



**\$12 million**  
Community Investment since 2009

# PORTS TORONTO

Canada

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Toronto. ON. M5J 1A7

The Toronto Port Authority, doing business as PortsToronto since January 2015, is a government business enterprise operating pursuant to the *Canada Marine Act* and Letters Patent issued by the federal Minister of Transport. The Toronto Port Authority is hereafter referred to as PortsToronto.

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## II.

# Message from the Chief Executive Officer

I am pleased to present our sixth annual Sustainability Report, which offers a comprehensive look at PortsToronto's efforts in the past year with respect to our longstanding mission to preserve and protect Toronto's waters, support our community and innovate for a sustainable future.

In this report, for the first time, we have aligned our sustainability achievements and targets with the United Nations Sustainable Development Goals (UN-SDGs). The UN-SDGs are a series of 17 goals that have been adopted by government bodies around the world, including the Canadian federal government. In an effort to concentrate our work within this new methodology, we have chosen six goals that reflect the areas in which we can make the greatest impact, namely Climate Action; Sustainable Cities and Communities; Life on Land; Partnerships for the Goals; Industry, Innovation and Infrastructure; and, Decent Work and Economic Growth. In our 2020 report, and moving forward, we will continue to align our projects and initiatives with these goals and set the tone for our annual Sustainability Report with a clear snapshot of our achievements in a graphic format of our performance summary.

In the pages that follow, we put our organization through its paces in identifying projects and initiatives that we are proud of as well as areas in which we need to improve in order to reach our future targets. We also acknowledge that the year 2020 looked much different than we had originally planned. Similar to many individuals and organizations worldwide, we faced myriad challenges in 2020, including economic, as a result of the COVID-19 pandemic. These may have tested and temporarily set back some of the goals we had set for ourselves, but did not alter the vision or commitment we have to our long-term sustainability journey. Thanks in no small part to the perseverance and grit of our team, we took these challenges in stride and did what we could to continue working toward our goals.

From implementing infrastructure improvements in the vicinity of Billy Bishop Airport as part of the City of Toronto-led Bathurst Quay Neighbourhood Plan, to supporting the University of Toronto Trash Team's innovative plastic pollution-fighting research through the award-winning PortsToronto Seabin Program, in 2020 PortsToronto continued to prioritize projects and initiatives that benefit our community and the environment.

This included the Cityside Modernization Project, an important component of the City of Toronto-led Bathurst Quay Neighbourhood Plan, which involved the full reconstruction of the Eireann Quay roadway and pedestrian sidewalks, and incorporating climate resiliency measures – such as permeable paving to reduce storm water runoff and urban heat island effect – that will help protect our facilities in the long term. We also supported our community with the creation of a new student pick up/drop off area at the TDSB Waterfront School. This tracks with our longstanding support of our neighbours through the Room 13 and Community Connect Garden programs at the Waterfront Neighbourhood Centre, which is a cornerstone of the waterfront community that provides education, resources and volunteer opportunities for community members.





## II.

# Message from the Chief Executive Officer

Another highlight was the new Works and Environmental Services building, which we proudly opened in September 2020. With the Don Mouth Naturalization and Port Lands Flood Protection project continuing to revitalize the port lands, our Villiers Street site needed to be vacated. This provided an opportunity to build a new space at the Port of Toronto tailored to the needs of the Works and Environmental Services team – an essential team that ensured the safe continuation of many of PortsToronto’s signature projects throughout 2020, including dredging, flood protection and wetland creation.

As part of our long-term sustainability strategy, and in response to the growing issue of plastic and microplastic pollution in our waterways, we continued to support leading research on the subject and incorporate the use of innovative trash-trapping technology in our harbour cleaning efforts. I am proud to report that despite minor delays due to the COVID-19 pandemic, the PortsToronto Seabin Program and corresponding research continued at the Outer Harbour Marina in 2020. Lending our partnership, support and infrastructure to the University of Toronto Trash Team researchers has and will continue to lead to innovative, evidence-based solutions to tackle the serious issue of plastic pollution in waterways here at home and throughout the Great Lakes.

Finally, after some initial delays brought on by the pandemic’s disruption to the supply chain and lockdown orders, we were also able to make strong progress on the conversion of the Marilyn Bell I ferry to 100 per cent electric power in 2020, including the build of the vessel’s electrical backbone and the delivery of the lithium-ion batteries. I am pleased to report that we expect to complete this milestone project in 2021, a clear indication of how serious we are in our commitment to the environment and maintaining balanced operations.

The year 2021 will mark the 110th anniversary of our organization and more than a century of PortsToronto’s stewardship of our city’s great waterfront. Looking to the year ahead, we will continue our mission to preserve and protect Toronto’s waters and I encourage our readers to keep up to date with our sustainability efforts through our website and social media channels.

For now, I hope you enjoy reading more in the pages that follow about our sustainability achievements, future goals and the important role PortsToronto plays in protecting the environment.

Happy reading.



**Geoffrey A. Wilson**  
Chief Executive Officer  
PortsToronto



I.

# PortsToronto

## Performance Summary 2020

35 %

Carbon Footprint



PortsToronto has committed to exploring and implementing initiatives to reduce emissions in order to achieve a 35 per cent reduction below 2015 levels by 2030.

100 %

Green Electricity

Since 2010, PortsToronto has powered all of its operations with 100 per cent green electricity through Bullfrog Power Canada.



8 %



GHG Emissions

In 2020, PortsToronto reduced our Scope 1 and Scope 2 emissions by approximately 8 per cent by using Bullfrog Power's clean energy, which comes exclusively from a blend of EcoLogoM-certified wind and low-impact hydro power.

CLIMATE ACTION



28,091 tonnes

CO<sub>2</sub>

Since joining the bullfrogpowered community, PortsToronto has displaced more than 28,091 tonnes of CO<sub>2</sub>. This is equal to the amount of carbon that would be sequestered by about 14,778 hectares of forest in one year.

530 tonnes

Fleet and Equipment Upgrades

PortsToronto's conversion of Billy Bishop Airport's Marilyn Bell I passenger/vehicle ferry to electric-power will significantly reduce noise associated with ferry operations and reduce greenhouse gas emissions by 530 tonnes per year.

41 %

Promote Active Transportation

We encourage passengers to use green transportation to get to and from the airport. 41 per cent of travellers walk, bike or take transit from Billy Bishop Airport – one of the highest percentages in North America.

SUSTAINABLE CITIES AND COMMUNITIES



4

Noise Monitoring Terminals

As part of our continuing efforts to ensure improvements between operations at Billy Bishop Toronto City Airport and the surrounding community, PortsToronto currently operates four NMTs that provide ongoing noise-level data to the airport's noise management office.

\$12 million

Community Investment

PortsToronto has invested more than \$12 million in community and environmental initiatives since 2009.



5705 square metres  
Improving Traffic Flow

5705 square metres of new asphalt were used to resurface the Eireann Quay roadway as part of our efforts to reduce vehicle traffic and idling at the airport by improving the efficiency of traffic flow through elements of the Billy Bishop City Side Modernization Project.



I.

# PortsToronto

## Performance Summary 2020



### 360,000

#### Single-Use Plastics

Since 2016, the water refilling stations in Billy Bishop Airport’s passenger lounges have saved more than 360,000 plastic water bottles from being sent to landfills.



### 84,854

#### PortsToronto Seabin Program

84,854 pieces of anthropogenic debris were diverted from Lake Ontario through the PortsToronto Seabin Program between July and October 2020. The program, launched in 2019, aims to reduce harmful materials such as single-use plastics and microplastics in Toronto’s harbour.

### 9

#### Hazardous Waste Recycling

PortsToronto donated nine end-of-life vehicles to a Charity Car Program that recycled the vehicles and made a donation to “10,000 Trees for the Rouge” on PortsToronto’s behalf.

### 3

#### Environmental Laws

In 2020, sampling of the effluent from the wastewater treatment facility at PortsToronto’s marine terminal properties identified three exceedances of our Environmental Compliance Approval. While the treated effluent discharged into the surface water posed no impact to the natural environment, PortsToronto has put in place additional proactive measures to further reduce possibilities of non-compliance from the wastewater treatment plant.



### 10 years

#### Environmental Laws

There have been no incidents of significant environmental non-compliance and no fines levied against PortsToronto over the past ten years.

LIFE ON LAND



### 14

#### Harbour Hotline

PortsToronto addressed 14 calls reporting debris and spills to the Harbour Hotline – contributing to public enjoyment of Toronto’s waterfront and inner harbour.

### 30,000 cubic metres

#### Dredging and Wetland Creation

Every year, PortsToronto dredges approximately 30,000 cubic metres of sediment material from the mouth of the Don River to mitigate flooding and create new wildlife habitat at Tommy Thompson Park through specially designed cells, which, over time, are converted to coastal wetland.

### 10 years

#### Clean Marine

The Outer Harbour Marina has achieved the Green Anchors Gold rating in the Clean Marine Eco-Rating Program 10 years running.

I.

# PortsToronto

## Performance Summary 2020



### 11,438

#### Research

Research by our Seabin Program partners, the University of Toronto Trash Team, indicates that PortsToronto's Seabins diverted 11,438 pre-production plastic pellets from Toronto's harbour in 2020.

### 100

#### Research

Trash Team researchers also undertook a visual audit of water lots on the Toronto waterfront. This season, researchers found over 100 different types of litter at 12 visual audit locations.

### 10,460 square feet

#### Works Building

The new Works and Environmental Services facility, completed in 2020, is a single story, 10,460 square foot facility with four workshops, office space, a lunch room and locker rooms.



#### UNSDG Goals

In 2020, PortsToronto made a commitment to align its environmental initiatives, reporting and projects with the United Nations Sustainable Development Goals.

### 10

#### Sustainability Committee

PortsToronto's 10-member, employee-led Sustainability Committee meets regularly to share ideas and identify strategies for employing environmental best practices throughout PortsToronto's business units and operations.



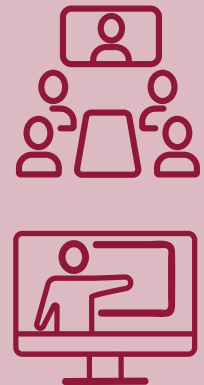
### 0

#### Health and Safety

Zero incidents of significant health and safety non-compliance in 2020.

### 2.2 million metric tonnes delivered to Port

In 2020, approximately 2.2 million metric tonnes of cargo from around the world were delivered directly into the heart of the city through the Port of Toronto.





### III.

## About PortsToronto

\$12 MILLION IN  
CHARITABLE AND  
ENVIRONMENTAL  
PROGRAMS

The Toronto Port Authority, doing business as PortsToronto, is a federal business enterprise that owns and operates Billy Bishop Toronto City Airport, the Marine Terminal property within the Port of Toronto, the Outer Harbour Marina and various properties along Toronto's waterfront. PortsToronto is mandated to provide critical infrastructure and operating expertise on a financially self-sustaining basis.

Responsible for safety and efficiency of marine navigation in Toronto Harbour, PortsToronto also exercises regulatory control and public works services for the area with partner organizations to keep the Toronto Harbour clean, issues permits to recreational boaters, and co-manages the Leslie Street Spit site with partner agency the Toronto and Region Conservation Authority on behalf of the provincial Ministry of Natural Resources and Forestry.

PortsToronto is committed to fostering strong, healthy and sustainable communities and has invested more than \$12 million since 2009 in charitable initiatives and environmental programs that benefit communities and organizations along Toronto's waterfront and beyond.

### Vision

As a guardian and steward of Toronto's waterfront resources, PortsToronto works closely with the broader waterfront community to ensure these assets will provide prosperity and enjoyment for future generations.

### Mission

PortsToronto's mission is to effectively manage Billy Bishop Airport, the Port of Toronto, the Outer Harbour Marina and its real estate properties on a self-sustaining basis, allowing PortsToronto to reinvest funds into marine safety, environmental protection, community programming and transportation infrastructure. Through the successful pursuit of this mission, PortsToronto plays an important city-building role in the economic growth and sustainable future of Toronto.

PortsToronto is committed to fostering strong, healthy and sustainable communities and has invested more than \$12 million since 2009 in charitable initiatives and environmental programs that benefit communities and organizations along Toronto's waterfront and beyond.





### III.

## Business Units


# Billy Bishop Toronto City Airport

It is against the backdrop of a successful 2019, during which Billy Bishop Airport welcomed nearly 2.8 million business and leisure travellers, and the promise that 2020 held in the first two months of the year, that Billy Bishop Airport met the emergence of a global pandemic in March 2020.

COVID-19 grounded much of the world in 2020 and the airport was hard hit by the pandemic and the resulting travel restrictions and border closures. Commercial carriers Porter Airlines and Air Canada temporarily suspended operations as of March 2020 as a result of low passenger volume and restrictions. However, despite the temporary suspension of commercial airline service, Billy Bishop Airport has remained open and operational in order to ensure continued access for critical Air Ornge medevac services, Island Air Flight School, Cameron Air, FlyGTA Airlines and HeliTours.

Prior to the COVID-19 pandemic, Billy Bishop Airport was Canada's ninth-busiest airport and sixth-busiest with passenger service to the United States. An important international gateway, the airport offered service to more than 20 cities in Canada and the U.S., with connection opportunities to more than 80 international destinations via its airlines' networks. A key driver of Toronto's economy pre-pandemic, Billy Bishop Airport generated more than \$470 million in Gross Domestic Product (GDP) and supported 4,740 jobs, including 2,080 directly associated with airport operations, each year.

One of the most walkable, bikeable airports in North America, Billy Bishop Airport is known throughout the travelling community for its excellent customer service, superb amenities and unbeatable convenience. The airport's proximity to downtown in conjunction with the state-of-the-art pedestrian tunnel, enhanced shuttle service, bike stations, shorter lines and stunning passenger lounges have made Billy Bishop Airport the travel hub of choice for business and leisure travellers alike.



DID YOU  
KNOW?

FLYGTA's check-in and boarding processes are completely paperless.



### III.

## Business Units

# Billy Bishop Toronto City Airport

The airport has been recognized with a series of passenger-driven awards, including being named one of the top airports in North America in both the Airports Council International's (ACI) Airport Service Quality Awards and Skytrax World Airport Awards, the premier international airport awards voted on by 13.8 million passengers worldwide. Billy Bishop Airport was also named one of the top ten best international airports by Condé Nast Traveler.

Billy Bishop Airport has also been recognized by Airports Council International (ACI) for its efforts to protect and preserve the environment through our programs, initiatives and projects. In 2017, Billy Bishop Airport won the top award for its Noise Management Program; in 2019, the airport won Best Innovative Project for the successful completion of its three-year Airfield Rehabilitation Program; and in 2020 the airport won for its Master Plan, which was inclusive of many initiatives to protect the environment.

Billy Bishop Airport also serves as a base for Ornge air ambulance services, two Fixed Base Operators, FlyGTA and Heli Tours, and is home to a personal/general aviation community that includes approximately 50 private planes and one flight school.

4749  
MEDEVAC  
FLIGHTS

We are proud to have Ornge air ambulance services based at Billy Bishop Airport. The YTZ base operated 4749 medevac flights in 2020. During this unprecedented pandemic year, Team Ornge has demonstrated their unwavering dedication to the health and safety of Ontarians through initiatives including Operation Remote Immunity, which saw teams of paramedics travel to 31 remote First Nations communities in Northern Ontario to administer the COVID-19 vaccine to approximately 16,000 community members.



### III.

## Business Units

## The Port of Toronto

Despite the challenges of COVID-19, marine imports remained strong at the Port of Toronto in 2020. Primarily a bulk cargo destination, the Port of Toronto is uniquely located minutes from downtown Toronto.

The port receives global cargo from destinations as far away as Germany, South Korea, Australia and South America, as well as other ports in North America. The port also serves an important environmental purpose as the cargo delivered by ship in 2020 took the equivalent of approximately 52,000, 40-tonne trucks off Toronto's roads and highways.

In 2020, for the fourth consecutive year, the Port of Toronto moved more than two million metric tonnes of bulk and general cargo products, which represents another strong year in marine imports for the city. Overall, the Port moved 2,208,358 metric tonnes of cargo, bringing road salt, sugar, cement, aggregate and steel directly into the city's core.

#### The year 2020 highlights include:

- The Port of Toronto recorded its highest cement cargo imports in 16 years with more than 728,600 metric tonnes delivered in 2020;
- An 11 per cent increase in sugar imports, with 638,283 metric tonnes imported from Central and South America;
- A 33 per cent increase in steel products such as steel coils, rebar, plates and rail from Sweden, Spain and Turkey, totaling more than 59,381 metric tonnes; and,
- The return of Short Sea Shipping with the movement of 375 containers from the Port of Montreal to the Port of Toronto in October 2020. Arrangements with Transport Canada are being made to ensure that the Port of Toronto can continue to support the region's supply chain through Short Sea Shipping moving forward.

#### DID YOU KNOW?

Through its mixed-use facilities, the Port also plays a role in supporting Toronto's \$2 billion film industry by providing a production hub for industry players such as Cinespace and Netflix. This complementary use is facilitated in parallel with traditional port operations and has proven to be successful in ensuring the full utilization of PortsToronto property.





### III.

## Business Units

## The Port of Toronto

In addition to traditional marine cargo, prior to the COVID-19 pandemic, the Port of Toronto was a growing cruise ship destination. Though federal regulations effectively cancelled the 2020-cruise ship season, the year 2019 marked the Port of Toronto's busiest yet as the number of cruise ships visiting Toronto more than doubled year over year, with 36 ships bringing approximately 12,500 visitors to Toronto. These passengers would spend several days in Toronto hotels, exploring attractions and enjoying the city's many attractions.

### DID YOU KNOW?

As a response to the COVID-19 pandemic, the Government of Canada suspended the 2020 and 2021 cruise ship seasons. When the time is right, the Port of Toronto will be ready to once again welcome Great Lakes cruise ships to Toronto, an important contributor to Toronto's tourism industry that brought approximately 12,000 visitors to Toronto in 2019.

SPRUCEGLEN

### DID YOU KNOW?

The Port of Toronto supplies laid-up ships with electrical power, reducing emissions associated with the vessel's generator. PortsToronto is working toward providing additional shore power infrastructure for cruise ship vessels in the future.

### III.

## Business Units

# Outer Harbour Marina

Just outside the Toronto Harbour and a short walk from Tommy Thompson Park and nature preserve, the Outer Harbour Marina (OHM) is located 10 minutes from the downtown core. With breathtaking scenery and a world-class marina, the OHM offers a unique escape from city life without having to leave Toronto.

As one of the largest freshwater marinas in Ontario, the OHM has more than 625 extra-wide slips that can accommodate boats up to 100 feet long. As well as being the only docking facility of its kind in Toronto, the OHM also boasts heated indoor boat storage.

The OHM has a reputation for excellence, especially when it comes to environmental stewardship. In 2020, it earned the Green Anchors Gold rating in the Clean Marine Eco-Rating Program from the Ontario Marine Operators Association for the tenth year in a row – one of the highest rankings attainable for marinas that follow environmental best practices. Further demonstrating its leadership in sustainability, the marina was the launch site for the award-winning PortsToronto Seabin Pilot Project in summer 2019. This program launched at the marina with the aim of cleaning up floating garbage including microplastics, and was the first commercial installation of Seabins in Canada.

Through programs such as the Seabin Program, the OHM is working toward achieving Diamond or Platinum designation in the Clean Marine Program. Further, the OHM is working toward becoming Blue Flag certified and is currently exploring upgrades and initiatives to receive certification in the program. Administered in Canada by Environmental Defence and Swim, Drink, Fish – and managed internationally by the Foundation for Environmental Education – Blue Flag designation is a highly prestigious international eco-certification program, which sets the gold-standard for water quality, environmental management and education, safety, and amenities.



Mike Dwyer, Manager of the Outer Harbour Marina, accepts the Robert Eaton Environmental Award for the PortsToronto Seabin Pilot Program at the Boating Ontario Awards of Excellence in November 2019. This award celebrates businesses dedicated to environmental responsibility and stewardship while contributing time and resources toward advancing efforts in the Boating Ontario Clean Marine program.



### III.

## Business Units

# Real Estate and Property Holdings

Real estate and property holdings include 5 Queens Quay West, Pier 6 and various water and land lots along the waterfront.

These properties are leased to other businesses, and some have the potential for redevelopment. One such property located in the Port Lands is leased to Cinespace, which runs a successful film and production studio out of Marine Terminal 51 and parts of the Cruise Ship Terminal.

Cinespace completed an impressive reconstruction of Marine Terminal 51 a few years back and has since attracted production companies such as Netflix, which have availed themselves of these industry-leading studios bringing jobs and opportunity to the city. Some of the productions that have filmed in the port-based studio in the last 18 months include the series *The Queen's Gambit*; and the soon-to-be-released *Nightmare Alley*, starring Bradley Cooper and Kate Blanchett; and *Jupiter's Legacy*, a big-budget, super-hero themed drama.

Importantly, this year the Netflix Hub, which was announced in 2019 and which Marine Terminal 51 comprises the largest portion of, will achieve its intended goal of hosting a large-scale Netflix Original project: Specifically, Oscar-winner Guillermo Del Toro's upcoming horror anthology *10 after Midnight*.





# Corporate Governance

PortsToronto is the successor agency of the Toronto Harbour Commissioners (THC), which managed the Toronto Harbour from 1911 to 1999. As part of a broad strategy developed by the federal government to modernize the administration of ports, the Toronto Port Authority, now PortsToronto, was established in 1999 to operate the port, marina, airport and its land holdings.

Established under the Canada Marine Act, PortsToronto is a government business enterprise that is mandated to be financially self-sufficient. PortsToronto operates in accordance with the Canada Marine Act and Letters Patent issued by the federal Minister of Transport in addition to a series of specific policies and procedures. The Letters Patent include requirements related to PortsToronto's board of directors and outlines the activities that can be undertaken by the organization.

PortsToronto is accountable to the federal government through Transport Canada and is guided by a nine-member board of directors composed of individuals appointed by all levels of government — federal, provincial and municipal. Six members of the board are appointed by the Minister of Transport in consultation with committees representing four identified user groups — commercial, recreation, airport and port operations. The City of Toronto and the Province of Ontario have a direct governance relationship with PortsToronto via their appointees to the PortsToronto board of directors. The PortsToronto board met 26 times in 2020.

The following four standing committees oversee various organizational matters, various facets of our operations and assess recommendations from management:

- Audit and Finance
- Governance and Human Resources
- Communications and Outreach
- Pension

The Board relies on these committees to facilitate business and guide its decisions. During 2020, the committees met 36 times.

For more information about PortsToronto governance, please visit our website.

## The board of directors is appointed as follows:



One appointee nominated by the federal Minister of Transport



One individual appointed by the City of Toronto



One individual appointed by the Province of Ontario



Six individuals appointed by the federal Minister of Transport in consultation with the below industry groups.

- Commercial
- Airport
- Port-related activities/operations
- Recreational business

*All individuals nominated by the Minister of Transport are appointed by the Governor in Council.*



During 2020, the committees met 36 times.

# Board of Directors



**ROBERT D. POIRIER**  
Chair of the Board  
(Retired April 2021)

**AMANDA WALTON**  
Chair  
(Elected Board Chair April 2021)

**DARIN E. DESCHAMPS**

**HELLEN SIWANOWICZ**

**DON MCINTYRE**

**CHRISTOPHER REYNOLDS**

# Senior Management



**CRAIG MANUEL**  
Vice President and  
General Counsel

**ALAN J. PAUL**  
Senior Vice President  
and Chief Financial  
Officer

**CHRIS SAWICKI**  
Vice President of  
Infrastructure,  
Planning and Environment

**DEBORAH WILSON**  
Vice President of  
Communications  
and Public Affairs

**GEOFFREY A. WILSON**  
Chief Executive Officer

**GENE CABRAL**  
Executive Vice President,  
PortsToronto and Billy  
Bishop Airport



At PortsToronto, all employees are responsible for conducting business in an environmentally sustainable manner and are encouraged to look for areas of improvement within their day-to-day activities. For the last several years, PortsToronto has benefited from the efforts of an employee-led Sustainability Committee, made up of environmental ambassadors from each business unit.

The committee meets regularly to share ideas and identify strategies for employing environmental best practices throughout PortsToronto's business units and operations. From implementing the award-winning, first-in-Canada, PortsToronto Seabin Program, to collaborating with our waterfront partners to strategize on tackling debris and plastics in Toronto's waterways, to introducing a ban on single-use plastics such as water bottles and straws in all PortsToronto business units, new and innovative ideas are consistently generated and implemented by members of the Sustainability Committee.

While 2020 proved to be a challenging year, with many members working from home due to the pandemic, the committee gathered in the latter end of the year to strategize on opportunities for the year ahead and how to minimize our environmental impact at home.



## Sustainability Committee Mission

As the organization's environmental ambassadors, the PortsToronto employee-led Sustainability Committee's mission is to generate and deliver meaningful environmental programs and initiatives aimed at further integrating social, economic and environmental responsibility into the fabric of PortsToronto's daily operations, reinforcing PortsToronto's position as a leader and innovator in environmental protection and sustainability.



# IV. Strategic Approach

## Approach to Sustainability

PortsToronto is proud to present our sixth annual Sustainability Report. Recognizing the importance of sustainability, this report summarizes PortsToronto's continued efforts to employ environmental best practices throughout all business operations.

Having experienced one of our best years on all fronts, including sustainability, in 2019, PortsToronto entered the year 2020 with great excitement and expectation. Then, the world came to a standstill in March as efforts to curb the COVID-19 pandemic ramped up around the globe.

With the economic impact of the pandemic accounting for a significant reduction PortsToronto's revenue, some of our sustainability investments have been affected in the short term. While we are not alone in having to pivot our plans in light of new business realities, PortsToronto has not lost sight of the important role we play in protecting the environment. We remain committed to engaging in an ongoing dialogue on opportunities to maximize sustainability efforts within our business, our operations and our community.

Through our 2020 Sustainability Report, we continue to build upon the strong foundations and goals that we have set for ourselves both in previous editions of this report and throughout our longstanding tradition of environmental stewardship, social responsibility and collaboration with government agencies and stakeholders to manage Toronto's waterfront. This annual Sustainability Report consolidates all of the work we are doing so that we can continue to measure our efforts and maximize the impact of our sustainability initiatives.



The Federal Sustainable Development Strategy is the government's plan and vision for a more sustainable Canada. It outlines goals and actions to promote clean growth, ensure healthy ecosystems and build safe, secure and sustainable communities.



# IV. Strategic Approach

## Approach to Sustainability

In previous years, the Sustainability Report has been guided by the Global Reporting Initiative (GRI) framework. Beginning in 2019, PortsToronto began to align its environmental initiatives with the United Nations Sustainable Development Goals (UN-SDGs). The UN-SDGs are 17 specific goals intended as a universal call to action to achieve a better and more sustainable future for all. The framework has been adopted by government bodies around the world including the Canadian Federal government in its Federal Sustainable Development Strategy for Canada.

In this report and moving forward, our Sustainability Reports will be structured around six UN-SDG priority areas that together define sustainability at PortsToronto:

- I. Climate Action
- II. Sustainable Cities and Communities
- III. Life on Land
- IV. Partnerships for the Goals
- V. Industry, Innovation and Infrastructure
- VI. Decent Work and Economic Growth



This year's edition once again includes a comprehensive report card that provides an overview of progress on key performance metrics that align with PortsToronto's priority areas and sustainability goals.



PortsToronto continues to participate in consultations on the draft 2019-2022 Federal Sustainable Development Strategy, as part of the Federal Ministry of Environment and Climate Change's plan toward a more sustainable future.



PortsToronto was awarded a Gold Award of Excellence for its Sustainability Report at the 2019 Canadian Public Relations Society National Conference in Edmonton.



# Our Priorities: Contributing to the Sustainable Development Goals

Our priorities focus on the areas in which our organization can have the greatest impact and influence in building a sustainable and prosperous future and support the Sustainable Development Goals. In 2021, we will continue to refine our process for setting and meeting sustainability goals, and engaging all external stakeholders and business tenants.

## CLIMATE ACTION



### I. CLIMATE ACTION

Take urgent action to combat climate change and its impacts.

## SUSTAINABLE CITIES AND COMMUNITIES



### II. SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable.

## LIFE ON LAND



### III. LIFE ON LAND

Protect, restore and promote sustainable use of ecosystems and biodiversity.

## PARTNERSHIPS FOR THE GOALS



### IV. PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development.

## INDUSTRY, INNOVATION AND INFRASTRUCTURE



### V. INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

## DECENT WORK AND ECONOMIC GROWTH



### VI. DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.



# V. Strategic Long-Term Goals and Targets

<b>Climate Action</b>			
Sustainability Indicator	Target / Goal	Progress	Details
CARBON FOOTPRINT	35 per cent carbon reduction below 2015 levels by 2030.	Goal	Continue to exploring and implement initiatives to reduce emissions.
BULLFROG POWER	Continue purchase and use of renewable electricity for all Billy Bishop Airport operations.	Goal	Review partnership with Bullfrog Power every four years, thereby optimizing green electricity efforts by continuously explore new and innovative ways of reducing energy consumption.
FLEET AND EQUIPMENT UPGRADES	Update fleet and equipment to electric-power.	Goal	Complete the conversion of the airport's <i>Marilyn Bell I</i> passenger/vehicle ferry to electric-power.
<b>Sustainable Cities and Communities</b>			
Sustainability Indicator	Target / Goal	Progress	Details
PROMOTE GREENER TRANSIT	Encourage passengers to use greener transit to get to and from the airport.	Goal	Seek to implement future partnerships with transit agencies to further promote greener transit to access the airport.
COMMUNITY ENGAGEMENT	Work with the community to identify and address noise complaints and mitigation initiatives in Community Liaison Committee meetings.	Goal	Continue to address noise complaints and hold Noise Sub-Committee meetings in 2021.  Continue Ground Noise Study aimed at identifying most significant sources of noise.
COMMUNITY INVESTMENT	Invest in projects, communities or organizations.	Goal	Continue to invest in local initiatives to promote greener, healthier and empowered communities.
COMMUNITY INVESTMENT	Engage waterfront and broader community in waste literacy.	Goal	Support and work closely with the University of Toronto Trash Team on plastic pollution research and waste literacy outreach programs.

# V. Strategic Long-Term Goals and Targets

<b>Life on Land</b>			
Sustainability Indicator	Target / Goal	Progress	Details
PORTSTORONTO SEABIN PROGRAM	Continue planning the implementation of phase three of the PortsToronto Seabin Pilot Project.	Goal	Continue planning for the implementation of phase three of the PortsToronto Seabin Program, including seeking new partnerships and exploring new methods of trash-trapping along the Toronto waterfront.
ENVIRONMENTAL DESIGNATION FOR OUTER HARBOUR MARINA	Work toward achieving Diamond or Platinum designation in the Clean Marine Program and becoming Blue Flag certified.	Goal	Work continues toward achieving Diamond or Platinum designation in the Clean Marine Program within a framework of two to five years.  Work will begin toward becoming Blue Flag certified.
SPILLS TO THE ENVIRONMENT AND REGULATORY COMPLIANCE	Ensure process and care to avoid spills that could impact the environment.	Goal	Continue efforts to mitigate any spills to the environment.
ORGANIC WASTE COLLECTION AND DIVERSION	Outer Harbour Marina waste-diversion program.	Goal	Continue to communicate proper waste disposal guidelines at the Outer Harbour Marina to improve waste diversion.
<b>Partnerships for the Goals</b>			
Sustainability Indicator	Target / Goal	Progress	Details
UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS	Align environmental initiatives, reporting and projects with United Nations Sustainable Development Goals.	Goal	Align PortsToronto environmental initiatives, projects and reporting with the United Nations Sustainable Development Goals.

# V. Strategic Long-Term Goals and Targets

INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



## Industry, Innovation and Infrastructure

Sustainability Indicator	Target / Goal	Progress	Details
CITY BUILDING AND INVESTING IN PUBLIC INFRASTRUCTURE	Don River Mouth Naturalization and Flood Protection.	Goal	Continue to provide support to the City of Toronto, the Toronto and Region Conservation Authority, and Waterfront Toronto to re-naturalize the Don River and protect the Port Lands from flooding.

DECENT WORK AND  
ECONOMIC GROWTH



## Decent Work and Economic Growth

Sustainability Indicator	Target / Goal	Progress	Details
HEALTH AND SAFETY NON-COMPLIANCE	Strive for no instances of health and safety non-compliance.	Goal	Continue efforts to maintain a record of zero instances of health and safety non-compliance.
STAFF WELLNESS PROGRAM	Promote Health and Wellness in the workplace.	Goal	Continue to support physical and mental wellness in the workplace and at home through periodic staff newsletters and activities that promote health and wellness.





CLIMATE  
ACTION



# Part 1: Climate Action



# Part 1: Climate Action

CLIMATE  
ACTION



Tackling climate change is among the most pressing environmental challenges of our time and one of PortsToronto's top priorities. While experts have projected that the COVID-19 pandemic – including the economic downturn and travel restrictions that came with it – will result in a six per cent drop in global greenhouse gas emissions in 2020, climate-positive action remains as critical now as it was at the end of 2019, the second warmest year on record.<sup>1</sup>

In our efforts to power our operations using renewable electricity sources, lower our carbon footprint and foster climate resiliency, PortsToronto is taking immediate action to combat climate change and ensure that we reduce the environmental impact of our operations through meaningful processes and choices that make a difference.

This section of the report is based on an extensive internal review, expert analysis from Delphi Group and feedback from our stakeholders and community partners.

PortsToronto's priority areas in this category are as follows:



Carbon Targets and  
Climate Change  
Action Plan



Carbon Reduction  
Strategy



Becoming Climate  
Resilient

## Delphi Group

Environmental Strategies. Business Solutions.

### Validating Our Priorities

The environmental priority areas detailed in this report have been reviewed by Delphi Group. As a pioneer in sustainability and environmental risk management, Delphi Group has more than 25 years of experience helping some of Canada's best-known companies improve the sustainability of their organizations – as well as the local and global communities in which they operate. For more information, visit [www.delphi.ca](http://www.delphi.ca)

DID YOU  
KNOW?

The year 2019 was the second warmest year on record and the end of the warmest decade (2010- 2019) ever recorded.<sup>2</sup>







## I.

# Carbon Targets and Climate Action Plan

Carbon Reduction Target: PortsToronto has set a target of achieving a 35 per cent carbon reduction below 2015 levels by 2030.

## Contributing to Canada's Greenhouse Gas Reduction Targets

The federal and provincial governments and the City of Toronto have climate change emission reduction goals in place until 2050.

In late 2020, the *Federal Government* released an updated climate action plan: *A Healthy Environment and a Healthy Economy: Canada's strengthened climate plan to create jobs and support people, communities and the planet.* The plan will establish the building blocks to build a cleaner, more competitive and resilient economy and get Canada to net-zero emissions by 2050. In October 2019, Toronto City Council voted unanimously to declare a climate emergency and adopted a stronger emissions reduction target for Toronto – net zero by 2050.

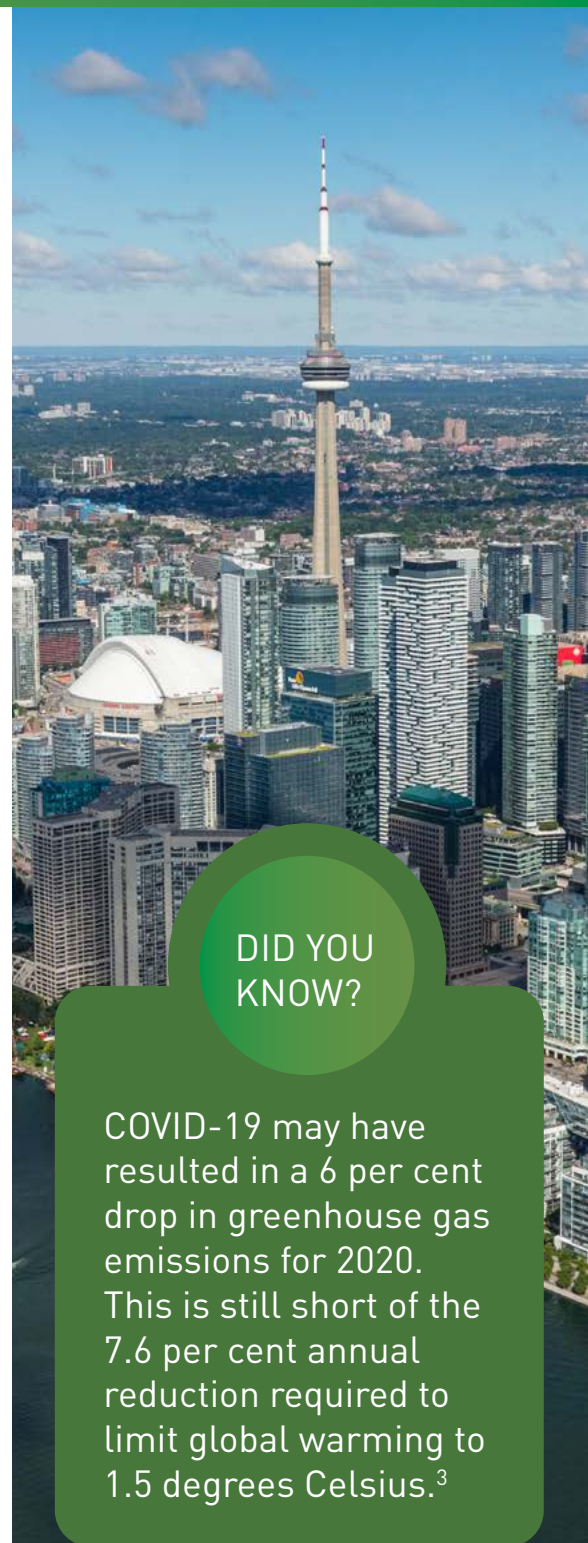
These government commitments and policy direction will help guide PortsToronto in our efforts to reduce our organization's carbon footprint and contribute to Canada's achieving a low carbon future.



In 2017, PortsToronto set the target of a 35 per cent carbon reduction below 2015 levels by 2030.

### DID YOU KNOW?

COVID-19 may have resulted in a 6 per cent drop in greenhouse gas emissions for 2020. This is still short of the 7.6 per cent annual reduction required to limit global warming to 1.5 degrees Celsius.<sup>3</sup>







I.

# Carbon Targets and Climate Action Plan

## Greenhouse Gas Emissions

PortsToronto works to manage emissions and energy use across our operations.

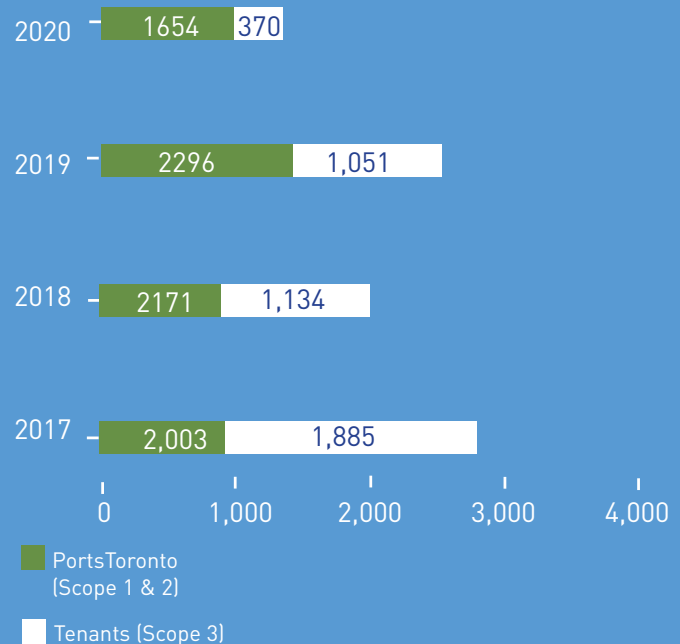
PortsToronto's Scope 1 GHG emissions arise from the energy used in our buildings, the vehicles and equipment used at Billy Bishop Airport and our port and marina operations and the fuel used to operate the *Marilyn Bell I* airport ferry. We also track GHG emissions from the buildings and vehicles operated by our tenants, where we have data.

We will continue our efforts to manage our energy consumption and reduce our GHG emissions across PortsToronto's operations. In future years, we will also work to improve our understanding of tenant related energy consumption and associated emissions.

### DID YOU KNOW?

FLYGTA's Airvan is the lowest carbon emission per passenger aircraft in its class, achieving the IATA fuel benchmark of 3.5 litres per 100 passenger kilometres.

## PortsToronto GHG Emissions<sup>4</sup>



*Our Scope 1 emissions are affected primarily by business activity, weather, and our energy management and GHG reduction efforts. Overall, we continue to be a very low emitter of GHG emissions across our operations. In 2020, Scope 1 emissions decreased dramatically due to the temporary suspension of commercial service at Billy Bishop Airport and temporary closure of our offices, both a direct result of the COVID-19 pandemic. We anticipate that these numbers will show a comparable increase in 2021 as Billy Bishop Airport resumes normal operations.*

*Our Scope 2 emissions are 0 due to our use of 100% renewable electricity for all PortsToronto's direct operations.<sup>5</sup>*

<sup>4</sup> Our GHG emissions are calculated using the globally recognized GHG Protocol developed by the World Resources Institute (WRI) and World Business Council on Sustainable Development (WBCSD). Each year that PortsToronto measures its GHG footprint, we update the emissions factors reported and provided by Environment and Climate Change Canada (ECCC).

<sup>5</sup> Our location based Scope 2 GHG emissions at PortsToronto are 146 tonnes CO<sub>2</sub>e in 2020. Location based emissions represent our Scope 2 emissions without the use of renewable energy provided by Bullfrog Power. Location based emissions are an emissions category defined in the GHG Protocol.



# II.

## Carbon Reduction Strategy

Managing carbon mitigation must, as much as possible, target the source of carbon emissions. To this end, PortsToronto has implemented several initiatives aimed at reducing the emissions from the vehicle fleet and buildings that support our business operations. Our carbon reduction strategy focuses on:

### I.

Electrifying our fleet and shifting to lower carbon fuels.

### II.

Choosing renewable energy.

### III.

Pursuing energy efficiency.

### DID YOU KNOW?

PortsToronto enforces a strict anti-idling policy for vehicles on all PortsToronto properties.



### REDUCING FLEET EMISSIONS

Billy Bishop Airport implemented all-electric litter vacuum and maintenance tools in 2020.





## II.

# Carbon Reduction Strategy

## Electrifying Our Fleet and Shifting to Lower Carbon Fuels

### *A Cleaner, Greener, and Quieter Airport Ferry*

#### **BILLY BISHOP AIRPORT CONVERTING MARILYN BELL I AIRPORT FERRY TO ELECTRIC-POWER**

In November 2019, PortsToronto announced that the airport's Marilyn Bell I passenger/vehicle ferry will be converted to electric-power. This innovative retrofit represents a unique technological advancement in the airport's fleet as the vessel will be the first 100 per cent electric lithium-ion powered ferry in service in Canada.

#### **How Will It Work?**

The vessel's propulsion system will be entirely powered by battery and fueled by 100 per cent Bullfrog Power® renewable electricity, enabling the electric ferry to eliminate greenhouse gas emissions from the airport's ferry operation.

In addition to operating more efficiently and eliminating related air emissions, the retrofitted vessel will build on the airport's Noise Management Program, as it will operate far more quietly, dramatically reducing related noise in the surrounding community.

A phased approach to greening the airport's ferry operations began in 2018 when the Marilyn Bell I was converted from diesel to bio-fuel blend, which has resulted in the reduction of approximately 20 tonnes of greenhouse gas emissions each year. The electric-powered ferry is expected to reduce greenhouse gas emissions associated with ferry operations by approximately 530 tonnes per year, dramatically reducing the airport's carbon footprint and setting the organization on a clear path toward achieving PortsToronto's overall emissions target.

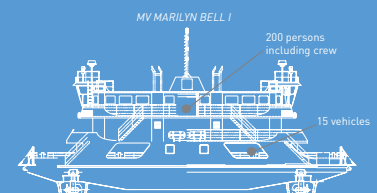
The conversion of the airport ferry to electric-power is one of Billy Bishop Airport's key capital projects and will cost approximately \$3 million. This cost will be paid in full by PortsToronto through the Airport Improvement Fee.



## Project Milestones Achieved in 2020

Due to the onset of the COVID-19 pandemic in early 2020, the original target date to complete the conversion of the Marilyn Bell I ferry to 100 per cent electric power has been delayed to 2021. This was due in part to COVID-19 work restrictions as well as the economic impact that the pandemic has had on Billy Bishop Airport, in particular the significant reduction in Airport Improvement Fees as a result of the temporary suspension of all commercial airline services.

Despite these delays, major project milestones were achieved in 2020. Eight crates containing lithium-ion batteries and components that will be needed to power the ferry have been delivered to the Port of Toronto. A detailed functional project design was developed and is currently under review to ensure standards and regulations compliance. Further, the build of the vessel's electrical backbone, a critical piece of infrastructure consisting of two electrical switchboards that contain power distribution, commands and controls for the vessel's zero emission power and propulsion system, were completed and tested in December 2020.







II.

# Carbon Reduction Strategy

## A Vital Link

The airport's ferry operation not only transports passengers, airport staff and essential supplies to and from Billy Bishop Airport, but serves as a vital link for City of Toronto service vehicles to gain access to the Toronto Islands as well as for critical Air Ornge emergency services.



*"Great to see @PortsToronto and @BBishopAirport taking action to fight climate change in Toronto by converting the Marilyn Bell I passenger ferry to electric-power. This innovative retrofit will be the first 100 per cent electric lithium-ion powered ferry operating in Canada."*

– Mayor of Toronto, John Tory

*"The retrofitting of the Marilyn Bell I to electric-power clearly demonstrates how we can build a clean and efficient transportation system, create good jobs and protect the environment. The Government of Canada commends PortsToronto for this initiative that will benefit Toronto communities and reduce our carbon footprint."*

— The Honourable Marc Garneau,  
Former Minister of Transport

Toronto

The *Marilyn Bell I* is named for the Canadian icon who was the first person to swim across Lake Ontario, and later the English Channel and Juan de Fuca Strait.



## II.

# Carbon Reduction Strategy

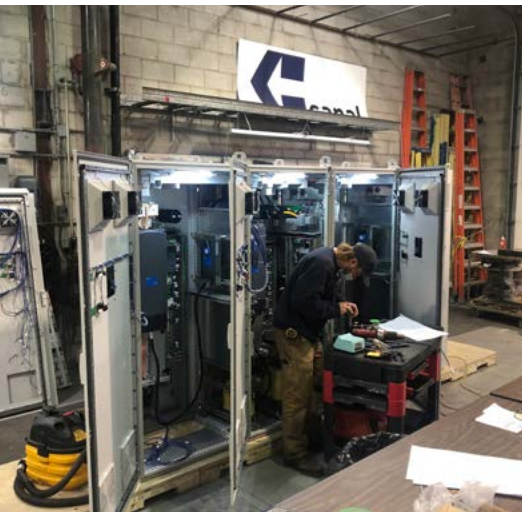
### REDUCING FLEET EMISSIONS

In addition to the conversion of the *Marilyn Bell I* airport ferry to electric-power, PortsToronto has implemented several initiatives aimed at reducing the emissions from its vehicle fleet and maintenance equipment, including:

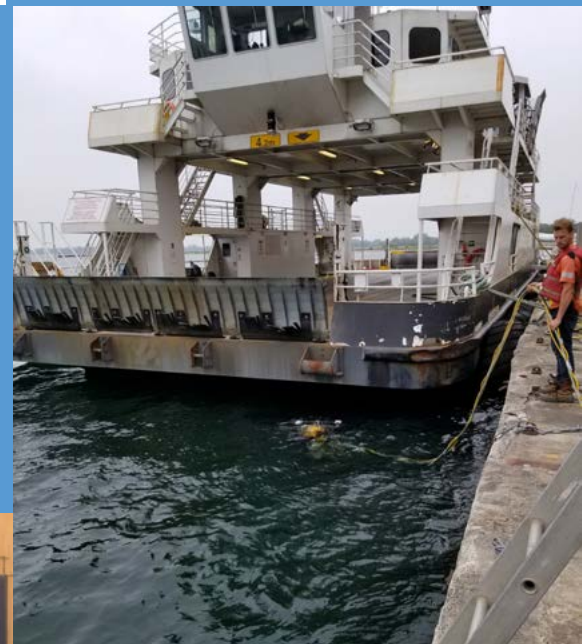
- Implemented all-electric litter vacuum and maintenance tools at Billy Bishop Airport;
- Replaced end of life-cycle, gas-powered equipment for grass and vegetation control with battery-operated technology;
- Replaced the port security vehicle with a compact, battery-powered electric vehicle;
- Replaced the mail-service delivery vehicle with a high-efficiency diesel engine that will provide better fuel efficiency and lower emissions; and,
- Replaced the former gas-powered forklift with a new propane-powered forklift that will aid in reducing emissions.

### DID YOU KNOW?

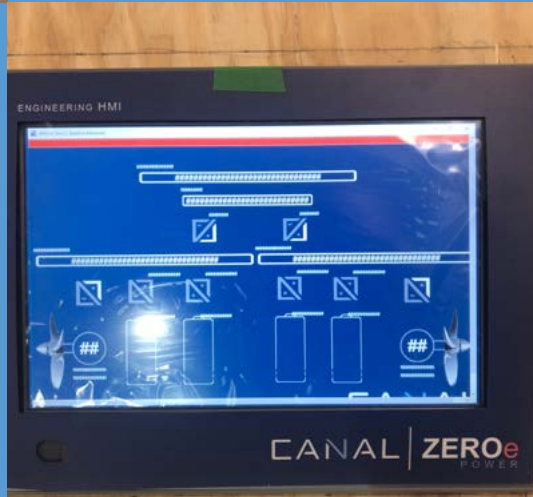
The battery cells were supplied by LG Chem of Korea – the world’s largest Lithium Ion battery manufacturer. LG Chem’s lithium supply comes from non-conflict mineral sources.



In June 2020, the Port of Toronto received a very special delivery: eight crates holding the lithium-ion batteries that will be used in the conversion of the Billy Bishop Airport *Marilyn Bell I* ferry to 100 per cent electric power. The batteries, supplied by Corvus Energy, were assembled in Richmond, British Columbia, Canada.



In November 2020, members of the Billy Bishop Airport team visited project partners Canal Marine, of St. Catharines, Ontario, to view progress being made on the assembly of various elements of the zero emission power and propulsion system for the ferry.



September 2020: A dive team takes on a hull inspection of the *Marilyn Bell I* airport ferry to ensure it meets Transport Canada regulations before being dry-docked in 2021.

# Setting a sustainable example



There's no doubt that 2020 has been a difficult year. Amidst the challenges of the coronavirus pandemic, fighting climate change may feel like less of a priority. But recovering from COVID-19 and transitioning to a low-carbon economy are not separate goals, and the need to halve emissions by 2030 remains. Since 2010, PortsToronto has been helping this transition by choosing green energy from Bullfrog Power. PortsToronto continues to be among the largest green energy purchasers in the country by bullfrogpowering all of its facilities and operations with clean, renewable electricity.

PortsToronto and Billy Bishop Airport are the only port authority and airport in Canada to be bullfrogpowered entirely by renewable electricity across all operations and facilities, including the airport's 853-foot pedestrian tunnel and connecting buildings.

How does bullfrogpowering a building or tunnel work? Bullfrog Power's generators put 100% green electricity onto the grid to match the amount of conventional power used across all of PortsToronto's facilities and operations. Across Canada, Bullfrog Power's green electricity comes from a blend of wind and low-impact hydro power sourced from new Canadian renewable energy facilities.

At Bullfrog Power, we've been working hard to show how cleantech and renewable energy can enable a just, green recovery. Canadian homes and businesses that choose green energy are an integral part of our efforts to transition Canada to a low-carbon economy, and we're grateful to count PortsToronto as an active member of our community.

Through its partnership with Bullfrog, PortsToronto supports green energy projects in diverse communities throughout Canada. The port authority helps to fund solar panels on schools, renewable projects with Indigenous Peoples, and more. In 2020 the bullfrogpowered community supported numerous community projects, including solar panels for Prospect Human Services, a non-profit that helps Albertans find meaningful employment, and Earth Tech, a cleantech accelerator for climate and freshwater solution.

PortsToronto's commitment to sustainability goes beyond energy, which it continues to demonstrate with initiatives like its Seabins in the Outer Harbour Marina. These floating trash bins—the first commercial installation of this technology in Canada—help protect aquatic ecosystems by collecting floating debris and microplastics. The positive results and learnings being shared through their partnership with the University of Toronto Trash Team set a great example that we hope will be replicated in waterways far and wide.

PortsToronto is working to build cleaner, healthier communities and help Canada transition to a low-carbon energy grid. By bullfrogpowering their operations and modelling sustainable business practices, PortsToronto is leading the way to a renewably powered future. Supporting green energy—and communicating the importance of sustainability—is essential if we are to achieve the climate goals set out by the IPCC.

Congratulations to PortsToronto on another year of sustainability milestones and their continued support of renewable energy.

Sean Drygas  
EVP, Bullfrog Power Sustainability Solutions





II.

# Carbon Reduction Strategy

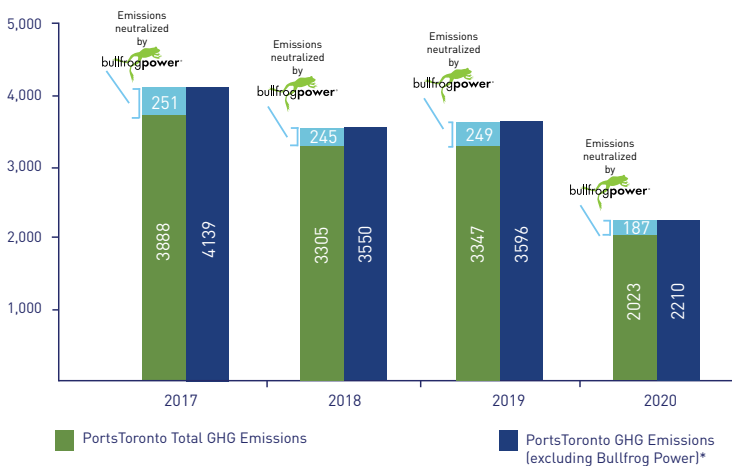
## Choosing Renewable Energy: Bullfrog Power

Since 2010, PortsToronto has reduced its environmental footprint by choosing 100 per cent green energy from Bullfrog Power to power all of its operations with clean, renewable electricity. Through our agreement, Bullfrog Power’s generators inject renewable electricity back into the grid on our behalf to match the amount of electricity used by PortsToronto’s operations.

In 2020, PortsToronto reduced our Scope 1 and Scope 2 emissions by approximately 8 per cent by using Bullfrog Power’s clean energy, which comes exclusively from a blend of EcoLogoM-certified wind and low-impact hydro power. PortsToronto also purchases Bullfrog Power on behalf of some of our tenants.

PortsToronto is one of the top 10 purchasers of Bullfrog Power green electricity in the country. PortsToronto and Billy Bishop Airport are the only port authority and airport in Canada to be powered entirely by renewable electricity across all operations and facilities, including the airport’s 853-foot pedestrian tunnel and connecting buildings.

GHG EMISSIONS NEUTRALIZED BY USE OF BULLFROG POWER (t CO<sub>2</sub>e)



Total PortsToronto GHG emissions (excluding Bullfrog Power) is equivalent to PortsToronto location-based emissions, as per the GHG Protocol Scope 2 Guidance.

Electricity grid emission factors, which are used to calculate GHG emissions, are published annually by Environment Canada. Emission factors are always published in a two-year time lag. For example, emission factors accurate for 2017 are published in 2020. Each year, PortsToronto’s historical GHG emissions are updated using the most accurate information available.

### DID YOU KNOW?

Since joining the bullfrogpowered community, PortsToronto has displaced more than 28,091 tonnes of CO<sub>2</sub> — the same amount of CO<sub>2</sub> emissions produced by the consumption of 12,228,635 litres of gasoline.

This is the equivalent of taking 6,208 cars off the road for one year or diverting more than 9,804 tonnes of waste from the landfill. It is the amount of carbon that would be sequestered by about 14,778 hectares of forest in one year.



## II.

# Carbon Reduction Strategy

## Supporting Emission Reductions in our Community

Our efforts to reduce carbon emissions extend beyond our own operations. We support and encourage our partners and community members to work with us in creating a sustainable and low-carbon transportation system.

### HIGHWAY H<sub>2</sub>O

One tonne of freight can travel 240 kilometres on a single litre of fuel by ship, whereas it can travel only 30 kilometres by truck. By operating the port and promoting shipping as a more efficient alternative to delivering goods to Toronto through programs like Highway H<sub>2</sub>O, PortsToronto is working to minimize the road traffic and related emissions that result from transporting goods by truck.

Since 1793, the Port of Toronto has served as Toronto's gateway to marine ports around the world. With the expansion of Toronto's urban landscape, construction materials based at the Port of Toronto's storage and staging areas travel shorter distances to get to the worksite, cutting down on construction costs, congestion and unnecessary fuel emissions. In 2020, 2.2 million tonnes of bulk cargo, such as salt, sugar, cement and steel were delivered through the Port of Toronto. The cargo delivered by ship took approximately 52,000, 40-tonne trucks off Toronto's already congested roads and highways.

### DID YOU KNOW?

With the availability of conveniently located bike stations, TTC stops, office bikes and access to electric-vehicle charging stations, PortsToronto encourages its employees to use sustainable modes of transportation to get to and from work and to offsite meetings and events.





## II.

# Carbon Reduction Strategy

### AVIATION

While work continues in the aviation industry on the production of more fuel-efficient aircraft and the substitution of conventional fuel with more sustainable biofuels, Billy Bishop Airport continues to make green investments and implement new processes to improve the efficiency of the airlines operating at the airport. These include:

- Encouraging airlines and general aviation to implement practices that reduce greenhouse gas emissions, e.g. single-engine taxiing and reducing engine idling
- Using Ground Power Units (GPUs) that reduce aircraft emissions

PortsToronto will continue to research and closely monitor innovative measures brought forward by leading airport and aviation experts, and collaborate with its tenants and partners on additional measures that could be implemented to progress green airport operations. Further, PortsToronto will continue to follow the progress of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), which is being led by the International Civil Aviation Organization (ICAO) with regard to setting long-term targets for reducing emissions.



Billy Bishop Airport, in collaboration with NAV CANADA, implemented enhanced arrival procedures and flight paths for aircraft operators at Billy Bishop Airport in December 2019. These enhancements include the use of satellite-based navigation capabilities, which allow aircraft operators flying to/from YTZ to reduce greenhouse gas emissions by up to 970 metric tonnes per year.

### DID YOU KNOW?

The International Air Transport Association (IATA) has adopted a number of targets to mitigate CO<sub>2</sub> emissions from aircraft. They include:

- Improving aircraft fuel efficiency by 1.5 per cent per year from 2009 to 2020;
- Capping net aviation CO<sub>2</sub> emissions from 2020 (carbon-neutral growth); and,
- Reduction in net aviation CO<sub>2</sub> emissions of 50 per cent by 2050, relative to 2005 levels.<sup>6</sup>

### DID YOU KNOW?

Porter Airlines follows a procedure that requires planes taxiing to the gates to operate on one engine to reduce both carbon emission impacts and noise.





# III.

## Becoming Climate Resilient

It is increasingly important to ensure our infrastructure and operations are resilient against the impacts of a changing climate. We have started to integrate climate resiliency into our strategic planning and will continue to assess climate resiliency as part our climate change action plan moving forward.

### CLIMATE CHANGE VULNERABILITY ASSESSMENT

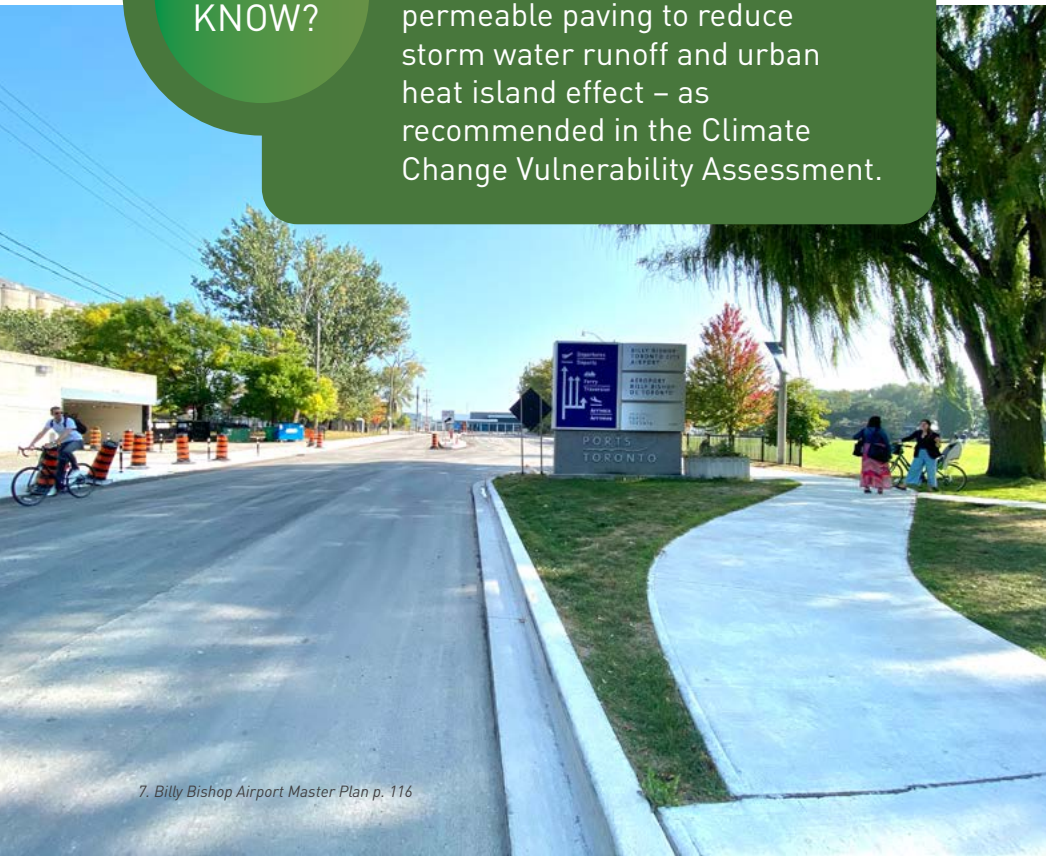
In 2018, PortsToronto engaged global consulting firm AECOM to conduct a Climate Change and Extreme Weather Vulnerability Assessment of all business units to help guide future planning within the framework of a changing climate. In 2019, PortsToronto began to implement measures identified in this assessment, including flood prevention and mitigation infrastructure.

### DID YOU KNOW?

Airlines, including Porter and Air Canada, have begun to trial the use of biofuels in their aircraft. In April 2012 Porter conducted the first biofuel-powered revenue flight in Canada using a 50/50 blend of biofuel and Jet A1 fuel in a Q-400 operating to Ottawa Airport. As biofuels become more available they promise to significantly reduce the level of CO<sub>2</sub> emissions by as much as 50 to 80 per cent.<sup>7</sup>

### DID YOU KNOW?

During the second phase of the Billy Bishop Airport City Side Modernization project, PortsToronto implemented permeable paving to reduce storm water runoff and urban heat island effect – as recommended in the Climate Change Vulnerability Assessment.



7. Billy Bishop Airport Master Plan p. 116

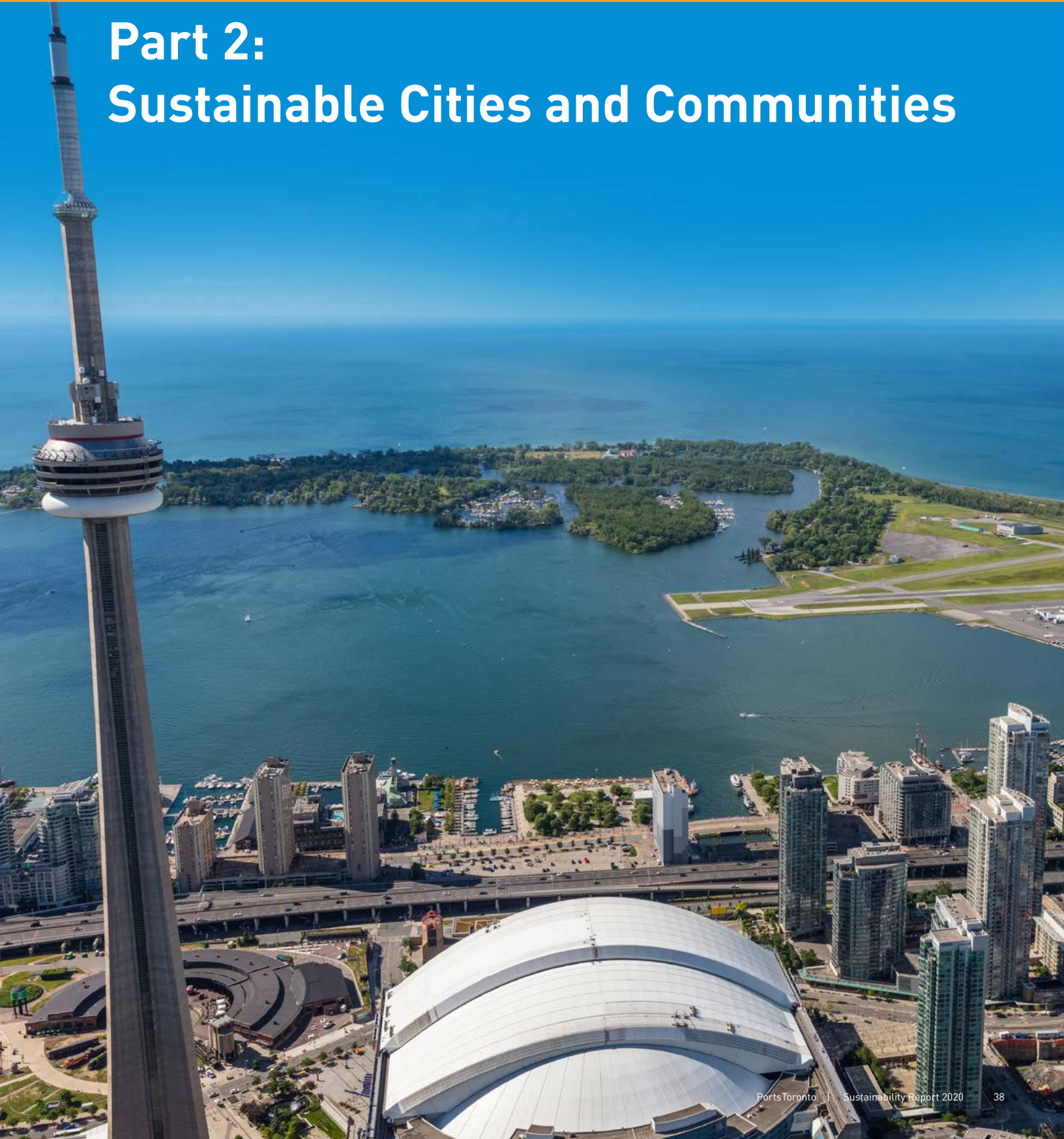




SUSTAINABLE CITIES  
AND COMMUNITIES



# Part 2: Sustainable Cities and Communities





## Part 2: Sustainable Cities and Communities

PortsToronto plays an important role in the sustainable future of Toronto. Our mission – which is to manage Billy Bishop Airport, the Port of Toronto, the Outer Harbour Marina and its real estate properties on a self-sustaining basis – enables PortsToronto to support environmental health, community programming, marine safety and sustainable infrastructure for our city.

Whether conducting meetings with community residents and airport stakeholders designed to ensure Billy Bishop Toronto City Airport is responsive to the needs of its neighbours, or investing more than \$12 million since 2009 in charitable initiatives and environmental programs that benefit communities along Toronto's waterfront and beyond, PortsToronto is committed to fostering resilient, safe and sustainable communities.

PortsToronto's targeted priority areas in this category are as follows:



Environment and  
Community Health



Community  
Investment and  
Initiatives

### DID YOU KNOW?

By 2050, 70 per cent of the world population is predicted to live in urban settlements.<sup>8</sup>

The world is becoming increasingly urbanized. More than half of the global population has been concentrated in urban centres since 2007 and that number is only expected to rise.<sup>9</sup>

Cities occupy just three per cent of the Earth's land, but account for 60-80 per cent of energy consumption and 75 per cent of carbon emissions.<sup>10</sup>







## I.

# Environment and Community Health

## Noise Management

With the opportunity that comes with operating an urban airport in Canada's largest city comes heightened expectations and responsibility to conduct our operations in a manner that reflects balance with the surrounding community. It is our commitment to balance that guides us and informs our vision for Billy Bishop Airport to ensure that an effective equilibrium is struck between commercial and community interests, and that measures are in place to mitigate the airport's operational impacts such as noise.

Billy Bishop Airport is one of the most noise-restricted airports in North America and must adhere to a strict curfew that closes the airport to commercial flight activity at 11:00 p.m. and ensures that noise from airport operations remains within a limited and monitored Noise Exposure Forecast. In addition, Billy Bishop Airport is continuously looking at processes and investments that will mitigate the impact of operations and ensure the airport is remaining in balance with the surrounding community. Many of these advancements are pursued within the context of the airport's Noise Management Program that encompasses all areas of operations and any special projects being undertaken.

### CONTINUED IMPROVEMENT AND RECOGNITION

Over the years, Billy Bishop Airport has continued to improve its Noise Mitigation Program. In April 2019, Billy Bishop Airport won the ACI-NA Environmental Achievement Award for Best Innovative Project for the airport's successful implementation of the three-year Airfield Rehabilitation Program. The Airfield Rehabilitation Program at Billy Bishop Airport included the construction of the Ground Run-up Enclosure facility that has all but eliminated noise impacts in the community associated with high-power aircraft engine run-up operations. In addition to the positive environmental results achieved by the program, the project incorporated innovative measures to reduce the impact of construction on the community, such as noise. In 2017, Billy Bishop Airport won the Airports Council International (ACI-NA) Environmental Achievement Award for its Noise Mitigation Program, and in 2020 the airport won for its updated Master Plan, which was inclusive of many initiatives to mitigate operational noise, improve air quality and protect the environment.

These awards recognize years of hard work and dedication to our community relations and environmental strategy, from working together with the community to identify solutions that assist with our noise reduction efforts to implementing new noise mitigation transportation infrastructure.



### REPORTING BACK TO THE COMMUNITY – ANNUAL NOISE MANAGEMENT REPORT

Billy Bishop Airport's Noise Management Office, which boasts a state-of-the-art Aircraft Flight Tracking and Noise Monitoring System, is responsible for collecting, analyzing and responding to noise complaints and monitoring daily operations. In addition to producing a detailed, annual Noise Report, the Noise Management Office also produces a monthly noise report that is posted to the Billy Bishop Airport website.

Learn more and view the 2020 Billy Bishop Airport Noise Management Report at [portstoronto.com](http://portstoronto.com).



I.

# Environment and Community Health

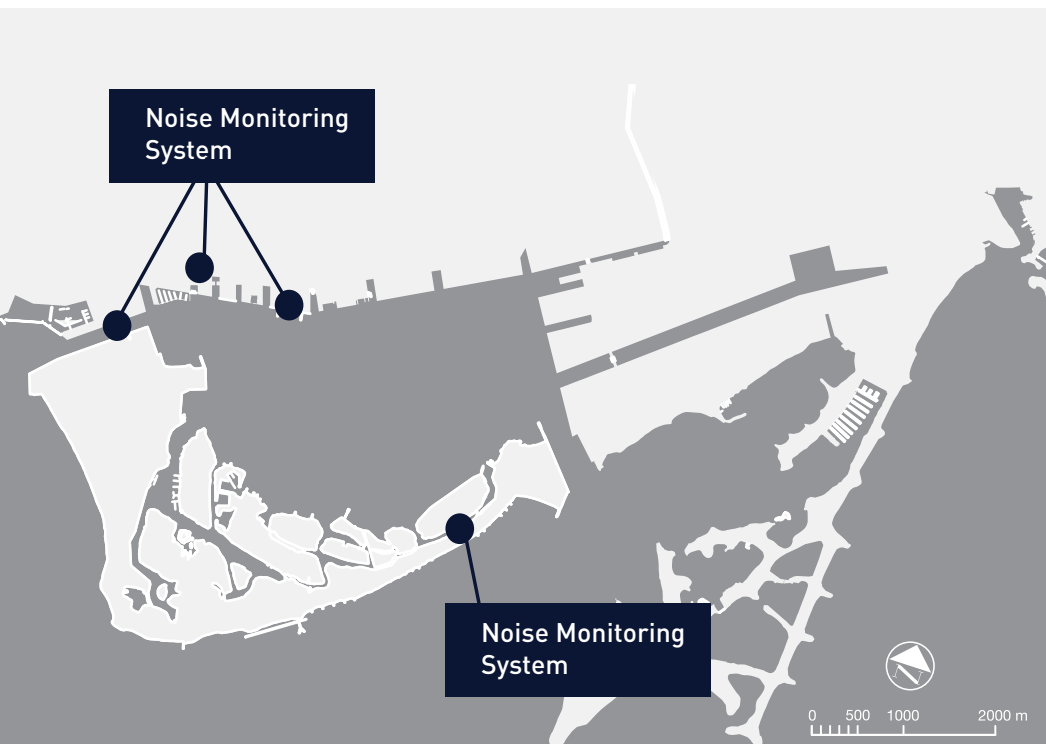
## NOISE MONITOR TERMINALS

Noise Monitoring Terminals (NMTs) are the foundation of the airport’s noise monitoring system and provide ongoing noise-level data to the airport’s Noise Management Office.

As part of our continuing efforts to ensure improvements between operations at Billy Bishop Toronto City Airport and the surrounding community, PortsToronto currently operates four NMTs:

- One located on the Toronto Police Marine Unit building;
- One located at Toronto Fire Station 335 on the Toronto Islands;
- One currently installed on the mainland ferry terminal to be relocated to a building in the community in 2021; and,
- One at 480 Queens Quay in the Kings Landing condominium building.

Through consultation and input from the Noise Management Sub-Committee, as part of the airport Community Liaison Committee, Ontario Place was selected as the ideal location for PortsToronto’s fifth NMT, which will be installed in 2021.



## DID YOU KNOW?

In the future, the introduction of electric aircraft could have a significant impact on reducing noise at the airport. Electric-powered flight training aircraft currently exist that have the capability of operating for up to 90 minutes on a single charge. An example is the Pipistrel Alpha Electro, a two-seat training aircraft constructed in Slovenia and certified to operate in Canada. Although limited in endurance, the aircraft is well suited to circuit training associated with flight instruction and is considerably cheaper to operate than comparable conventional training aircraft.<sup>11</sup>



11. Billy Bishop Airport Master Plan p. 108



I.

# Environment and Community Health

## GROUND NOISE STUDY

PortsToronto is currently completing a noise study to identify sources of ground noise at the airport and, through analytical noise modelling techniques, assess opportunities to reduce the impact of ground-sourced noise on the community. As part of the study, PortsToronto is working in close collaboration with the Noise Management Sub-Committee of the Community Liaison Committee.

To inform the study, temporary noise terminals will be installed in the community for a short period to gather data on non-airport background noise in the community. This information will assist in airport management and the project team with regard to the implementation of future mitigation measures aimed at reducing the impacts of airport ground operations on the surrounding residential community.

PortsToronto is researching initiatives to further reduce ground-sourced noise, including:

- Increased use of electric powered ground transportation vehicles such as the airport shuttle buses; and,
- Implementing additional operational procedures such as managing aircraft operations during noise-sensitive periods.



In November 2020, PortsToronto staff visited the Billy Bishop Airport airfield to take baseline sound measurements for various equipment in order to model the sum of airport ground noise and design mitigations to reduce noise impact on the community.





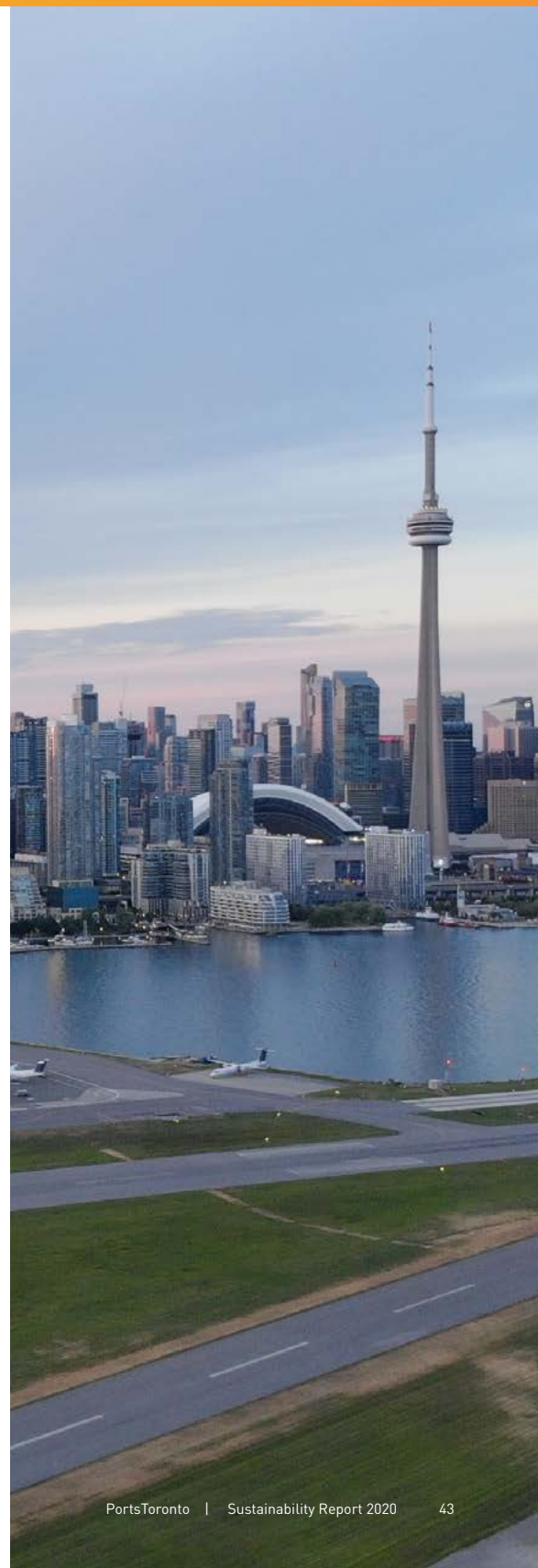


# I.

## Environment and Community Health

### AIR QUALITY STUDY

PortsToronto is working with community leaders, the City of Toronto, Toronto Public Health and the University of Toronto to develop a proposal to study the air quality exposure in the Bathurst Quay neighbourhood. The lead scientist with the University of Toronto, Dr. Marianne Hatzopoulou, is the Canada Research Chair in Transportation and Air Quality and leads the Transportation and Air Quality (TRAQ) research group. Her expertise is in modelling road transport emissions and urban air quality as well as evaluating population exposure to air pollution.





## I.

# Environment and Community Health

## Encouraging Alternative Transportation to Billy Bishop Airport

One of the most walkable, bikeable airports in North America, Billy Bishop Airport is known throughout the travelling community for its unbeatable convenience. The airport's proximity to downtown in conjunction with the state-of-the-art pedestrian tunnel, enhanced shuttle service and bicycle rental and maintenance stations have made Billy Bishop Airport the travel hub of choice for business and leisure travellers alike.

### THE PEDESTRIAN TUNNEL

The state-of-the-art pedestrian tunnel has continued to have a positive effect on Billy Bishop Airport since it opened nearly six years ago. Prior to the tunnel's opening, passengers would arrive and depart in large groups according to the ferry schedule, which caused vehicle congestion at the mainland terminal and along Eireann Quay. With more than 90 per cent of passengers using the tunnel, travellers come and go on their own schedule, which has smoothed out the flow and eliminated surges corresponding to the ferry arriving from and departing for the mainland.

### SHUTTLE BUSES

Billy Bishop Airport's commitment to reducing single-use vehicle traffic in the area is furthered through regular shuttle service between the airport and Union Station in downtown Toronto. Though shuttle bus service was temporarily suspended in March 2020 pending the return of commercial airline service at the airport, the shuttles are typically available on weekdays, weekends and holidays, with enhanced non-stop shuttle service during peak hours. The trip to and from Billy Bishop Airport takes approximately 15 minutes depending on traffic.

### INTERCONNECTIVITY TO REGIONAL TRANSIT

The pedestrian tunnel has also provided for a more even distribution of shuttle ridership, virtually eliminating overcrowded or empty departing shuttle-runs and making the complimentary shuttle a popular option among travellers and employees alike, in addition to helping to reduce single-use vehicle traffic in the airport's vicinity. In fact, a 2018 Dillon Report<sup>12</sup> indicated that nearly 30 per cent of passengers depart Billy Bishop Airport via the complimentary airport shuttle to access Toronto's Union Station, which highlights the important role the airport plays in not only connecting people to the heart of downtown Toronto but in providing convenient access to the region's broader transportation network.

12. The 2018 study conducted by Dillon Consulting was undertaken during airport peak hours and focused on conditions related to traffic volumes, modal splits and taxi occupancy levels for travel to and from the airport. The data gathered will continue to provide background information to measure future conditions related to traffic volumes.



### BIKE RACKS AND MAINTENANCE STATION

As part of continued efforts to reduce vehicle traffic associated with the airport by encouraging greener methods of transportation, PortsToronto has incorporated bike racks that are conveniently located on both the island and mainland, as well as a bicycle maintenance station for cyclist use.

A valuable addition to cycling infrastructure at the airport, the maintenance station features a full complement of commonly required tools and two bike hangers able to accommodate any style of bicycle.





I.

# Environment and Community Health

## Protecting Toronto's Harbour

For over 100 years, PortsToronto has worked with the waterfront community to keep the Port and Harbour of Toronto clean and free of debris, harmful materials and spills.

PortsToronto works to keep Toronto's waterways safe and navigable for all to enjoy through:

- Dredging operations, which help prevent flooding and maintain safe navigation depth for boaters;
- The removal of driftwood and debris, and;
- Annual buoy deployment to mark safe swimming and boating zones throughout Toronto's inner and outer harbour.

Through its Powered Vessel Operator's Permit program, PortsToronto educates powered vessel operators on speed limits in effect in the harbour and works closely with the Toronto Police Services Marine Unit to monitor the harbour and promote safe boating. Further, as part of its stewardship of the harbour, PortsToronto provides authorizations for activities that occur in, on, over, under, through or across the waters in its jurisdiction, including marine events, construction, diving and filming.



In 2020, in partnership with TRCA, PortsToronto began dredging operations at the mouth of Coatsworth Cut to maintain safe navigation depth between Lake Ontario and the boating facilities located at Ashbridges Bay Park. The natural materials dredged from this location are contained in Cell 3 at the Leslie Street Spit.

### DID YOU KNOW?

Vessels operating less than 150 metres from shore between the Eastern Beaches and Humber Bay are limited to a maximum speed of 10 kilometres per hour.

### DID YOU KNOW?

Keeping the harbour clean and safe is a key priority for PortsToronto. Through the Harbour Clean-Up Program, PortsToronto removes approximately 150 million pounds (more than 68,000 tonnes) of debris, driftwood and mud/silt from the harbour each year.







## II.

# Community Investment and Initiatives

## Sponsorship

As part of our dedication to being a sustainable organization, we are committed to our local community. With a long tradition of working with community members and organizations to foster strong and sustainable communities along Toronto's waterfront, PortsToronto provides donations, sponsorships and in-kind contributions to local initiatives and events each year. These initiatives and events share a common goal of promoting healthier, greener and empowered communities.

In 2020, PortsToronto funded community initiatives and organizations including:

- Waterfront Neighbourhood Centre  
*(Room 13 and Community Garden)*
- Swim, Drink, Fish
- Set Sail For Hope
- Hope Air (Medical travel assistance)
- Evergreen Brickworks
- Ireland Park Foundation
- The Bentway Conservancy — Bentway Park
- ALS Canada
- Waterfront BIA - Waterfront Art Installation



### PortsToronto Community Investment Mission

To create a legacy of giving based on our commitment to fostering strong, healthy and sustainable communities along Toronto's waterfront. Our giving is focused on the waterfront, education and youth in ways that support strong communities and a healthier environment.





## II.

# Community Investment and Initiatives

### ALS CANADA: VIRTUAL PLANE PULL

The Plane Pull to End ALS is ALS Canada’s signature annual fundraising initiative and brings people together to raise funds for ALS research and advocacy. In past years, the Plane Pull has taken place at Billy Bishop Airport’s Ground Run-up Enclosure on the south end of the airfield, an area not typically accessible to the public that offers unmatched views of Toronto’s skyline as a backdrop for the pulls.

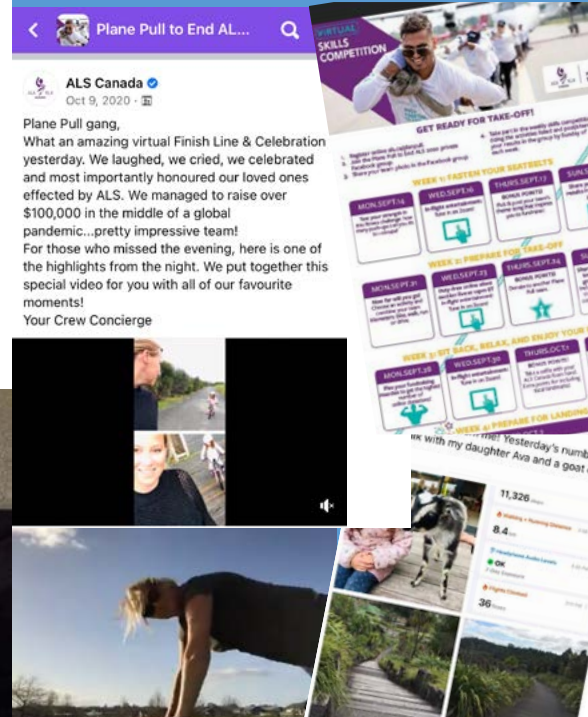
With COVID-19 restrictions in place, an in-person event was not possible in 2020. ALS Canada organizers met this challenge head-on and pivoted the event to a virtual format in order to safely challenge participants and continue to raise funds for this worthwhile cause. Billy Bishop Airport was proud to continue to support the event by participating in the virtual three-week skills challenge and contributing to the online “Duty Free” silent auction. This year, participants and organizations raised over \$101,000 to support ALS research and advocacy.

### FREE SKATE THURSDAYS

This winter, Billy Bishop Airport continued to sponsor Free Skate Thursdays at the Bentway Skate Trail, a unique figure-eight skate trail located under the Gardiner Expressway.



This year, participants and organizations raised over \$101,000 to support ALS research and advocacy.



### HOPE AIR

We are proud to support Hope Air, a unique national charity that arranges free flights for Canadians who are in financial need and must travel to access health care.

Hope Air patient Lorena travelling from Northern Ontario to Billy Bishop Toronto City Airport.





## II.

# Community Investment and Initiatives

### Waterfront Neighbourhood Centre

In 2020, PortsToronto continued its sponsorship of the Waterfront Neighbourhood Centre (WNC). A cornerstone of the waterfront community, the centre provides education, resources and volunteer opportunities for community members.

#### ROOM 13 ART, MUSIC AND MULTIMEDIA PROGRAMS

Since 2012, PortsToronto has sponsored Room 13: a free visual arts studio program and a music production and recording studio media arts program for at-risk children and youth living in the waterfront community. The Room 13 program is offered four days per week and empowers at-risk youth through personal development, team building, career development and employment readiness, as well as developing creative skills by exploring various art and music media.

#### DID YOU KNOW?

Waterfront Neighbourhood Centre Youth Workers are trained to understand and support youth who are experiencing mental health issues. In 2020, the Room 13 program served as a safe space and escape from the constraints of the COVID-19 pandemic for youth to cope and freely express their emotions through their music and art.

*“Having a dedicated space to just learn about everything... music, photography, videography, etc. means everything. You don't find spaces and programs like this in Toronto.”*

– 21 year old  
Room 13 Multimedia Studio  
Participant



Room 13 Art program participants create watercolours under the tutelage of Lula, a visual artist (OCADU graduate) and WNC youth worker.







## II.

# Community Investment and Initiatives

### Waterfront Neighbourhood Centre

#### COMMUNITY CONNECT GARDEN

PortsToronto also sponsors the WNC Community Connect Garden, a valuable local asset that provides free organic food gardening instruction, environmental education workshops and supports local food security with access to fresh organic produce for marginalized families, youth, seniors and isolated adults living in the waterfront community.

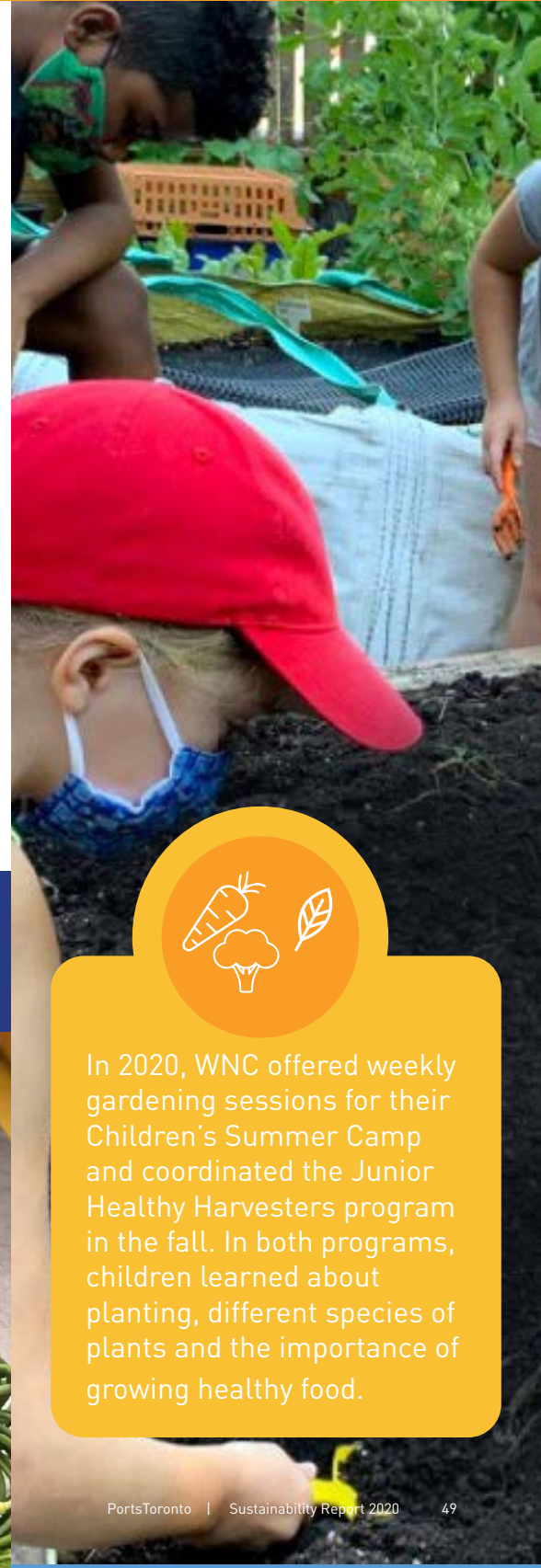
This year, the Community Connect garden harvested 887-pounds of organic vegetables and herbs, including:

- More than 1000 plants, including 85 vegetable and herb species.
- 68 varieties of pollinator-friendly plants.
- 25 courtyard ornamentals.

Produce was used for healthy snack and meal preparations in WNC free programs for families, children, youth and seniors, and was provided to marginalized and isolated community members and seniors living in our community.



*In response to COVID, the WNC Community Kitchen staff team prepared and delivered meals and fresh produce from the Community Connect Garden to 30-50 vulnerable community members every week.*



In 2020, WNC offered weekly gardening sessions for their Children's Summer Camp and coordinated the Junior Healthy Harvesters program in the fall. In both programs, children learned about planting, different species of plants and the importance of growing healthy food.



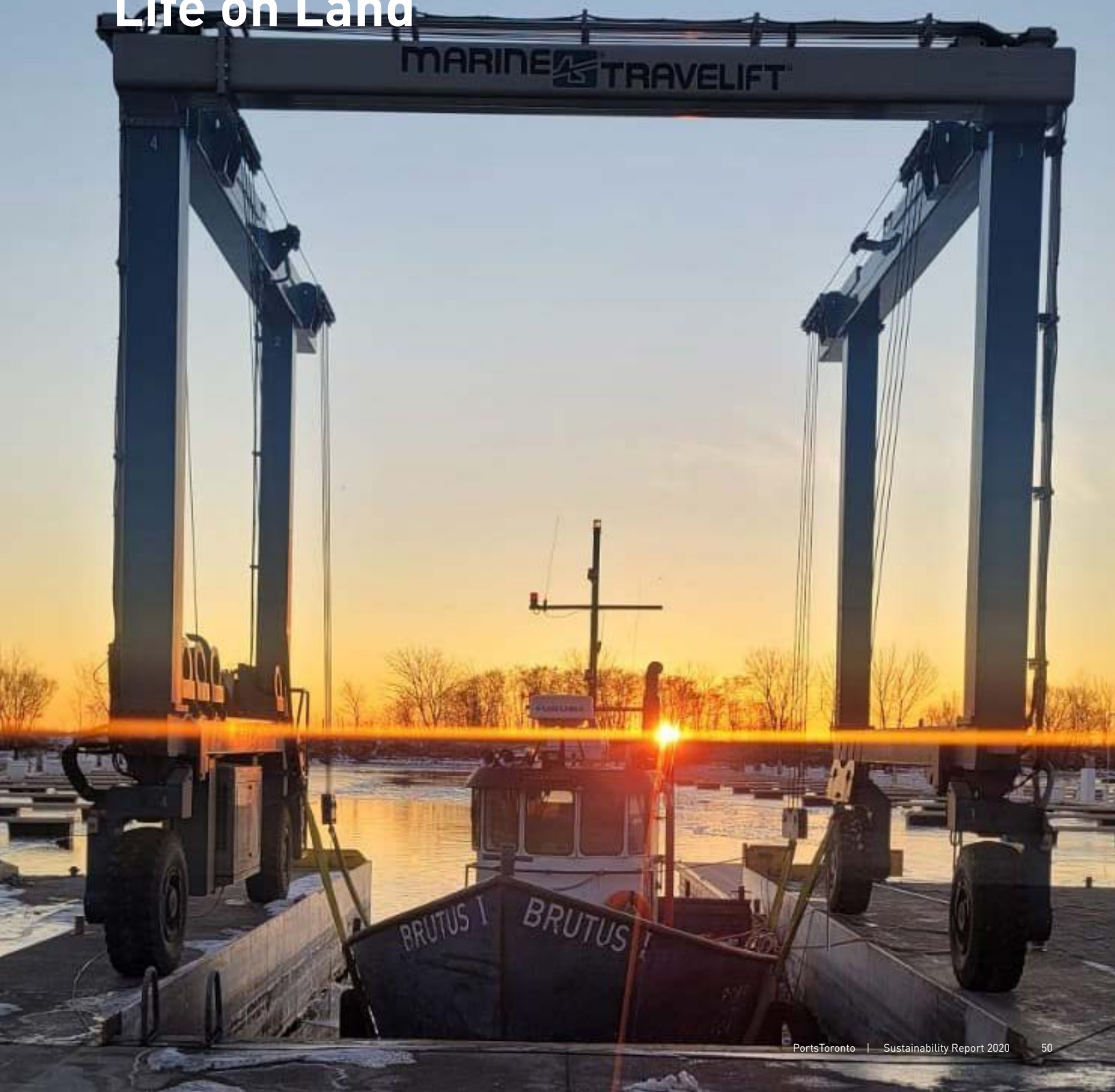




LIFE  
ON LAND



# Part 3: Life on Land



# Part 3: Life on Land

LIFE  
ON LAND



As the owners and operators of key transportation hubs located on Toronto's shores, PortsToronto appreciates that a sustainability plan inclusive of environmental protection and green business operations is important to our long-term future as a business and the role we play in making connections between Toronto and the world.

At the core of our operations is a commitment to protect and restore natural habitat, promote wildlife protection and biodiversity and encourage the safe, sustainable enjoyment of Toronto's waterfront.

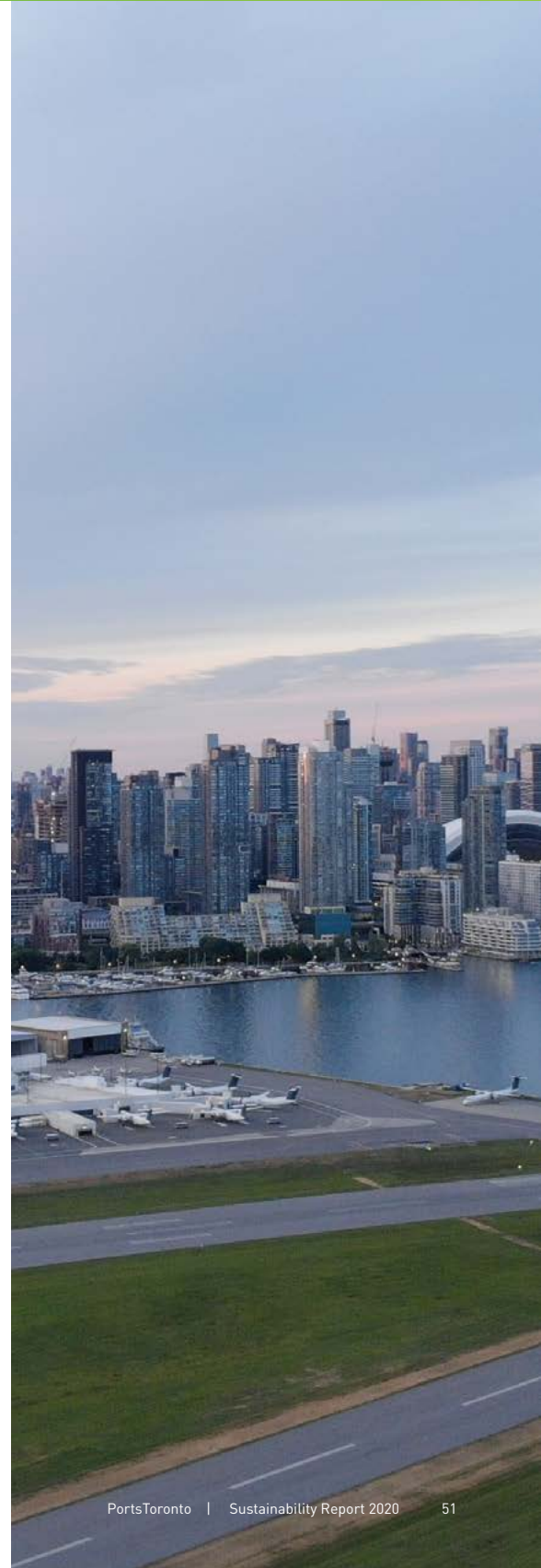
PortsToronto's targeted priority areas in this category are as follows:



Ecosystem  
Protection



Environmental  
Performance





# I.

## Ecosystem Protection

LIFE ON LAND



### Dredging and Wetland Creation

Thousands of tonnes of sediment build up every year where the Don River empties into the Keating Channel. This sediment, if not removed, could cause the river to back up and result in flooding. For this reason, maintenance of the river mouth is imperative to prevent siltation and debris from spilling into the harbour.

Each year, approximately 30,000 cubic metres of sediment material is removed from the mouth of the river through PortsToronto's dredging process. Dredging removes sediment in order to achieve a navigable river depth and allow the smooth flow of water and ice through the Keating Channel.

Dredging involves scooping material from the bottom of the channel using an excavator. Once removed, the natural sediment is transported by dump scow barges to the Leslie Street Spit for containment in one of the specially designed cells or Confined Disposal Facility (CDF). The cells were specially designed by PortsToronto to properly contain the natural materials dredged from the channel and other parts of the harbour.

Over time, this process provides new habitats for marsh birds, turtles, small mammals and native fish while helping to prevent flooding and the potential for debris to enter the harbour. PortsToronto and the Toronto and Region Conservation Authority (TRCA) completed the Cell 1 Wetland Creation Project in 2007. The CDF was converted into a seven-hectare coastal wetland that has significantly increased fish populations, with reports of pike and walleye returning to the harbour.

The Cell 2 wetland was officially completed in September 2016. This cell provides an additional 9.3 hectares of habitat for a variety of fish and wildlife and more green space for the recreational enjoyment of the surrounding communities. The remaining cell will continue to be used for dredged materials for the next 30-40 years until its capacity is reached. Once capped, a further 700 to 800 hectares of wetland will become part of Tommy Thompson Park.



A juvenile longnose gar was found during TRCA night electrofishing surveys at the Tommy Thompson Park wetlands. Finding a wide variety of juvenile fish demonstrates the wetlands are functioning as a nursery for native species.<sup>13</sup>



13. TRCA tweet.



I.

# Ecosystem Protection

## PortsToronto Seabin Program

PortsToronto's Sustainability Committee meets regularly to come up with ideas — both big and small — on how to be greener and reduce our carbon footprint. With the issue of plastics and microplastics in our waterways front and centre, the committee did some research on Seabins, floating trash bins invented by Australian surfers troubled by the amount of plastic pollution in the ocean.

In June 2019, the Outer Harbour Marina installed two Seabins as part of the first phase of a pilot program, becoming the first commercial installation of Seabins in Canada. The Seabins — that act like a vacuum cleaner on the surface of the water — are strategically positioned to enable the wind and currents to push debris in the Seabins' direction.

In October 2019, following the success of the Seabins Pilot Program at the Outer Harbour Marina, PortsToronto launched phase two of the project, which included the deployment of two additional Seabins in Toronto's inner harbour. Secured to a floating dock positioned in the northeast corner of the York Street Slip, these were the first Seabins to be installed in a North American harbour.

While the third phase of the project — a future roll-out of Seabins throughout Toronto's harbour — has been delayed due to the COVID-19 pandemic, PortsToronto is thrilled with the program's results thus far and plans to collaborate with waterfront stakeholders to expand the Seabin Program in Toronto's harbour in the coming year.



"Congratulations to everyone at @PortsToronto for launching the next phase of the Seabin program. I look forward to seeing even greater success as your innovative Seabins continue to remove plastics & microplastics from Lake Ontario to make it cleaner for future generations."

-@JeffYurekMPP





# I.

## Ecosystem Protection

LIFE ON LAND



### PortsToronto Seabin Program

#### HOW DOES A SEABIN WORK?

The Seabin moves up and down with the natural flow of water, collecting all floating debris. Water is sucked in from the surface and passes through a catch bag inside the Seabin, with a submersible water pump capable of displacing 25,000 LPH (litres per hour), plugged directly into 110/22V outlet. The water is then pumped back into the marina, leaving litter and debris trapped in the catch bag to be disposed of properly. Just one Seabin can collect an estimated 3.9 kilograms of debris in a day, filtering as much as 1.4 metric tonnes of trash in one year.

To quantify our impact and inform policy, PortsToronto partners with the University of Toronto Trash Team on research, education and community outreach led by Dr. Chelsea Rochman, Assistant Professor of Ecology and Evolutionary Biology alongside co-founders Susan Debreceni and Dr. Rafaela Gutierrez. Learn more about their research in Part 5: Industry, Innovation and Infrastructure.

*"In our lab at the University of Toronto, we find large plastic debris and microplastics in our local rivers, in the Toronto Harbour and in Lake Ontario. This litter leads to contamination of the local fish and contamination of our drinking water. We established the U of T Trash Team to increase waste literacy in our community and help translate the science to the people that make decisions on our waterfront. Naturally, we partnered with PortsToronto at inception to explore collaborations that bring technologies to our waterfront to capture plastic pollution before it contaminates our lake. Since day one, PortsToronto has been supportive of our mission and we are thrilled to partner with them on this fantastic initiative that will further plastic prevention, research and community outreach."*

- Dr. Chelsea Rochman, Assistant Professor of Ecology and Evolutionary Biology, University of Toronto

#### DID YOU KNOW?

Canadians throw away over three million tonnes of plastic waste every year.<sup>14</sup>

*Councillor Cathie Jamieson of the Mississaugas of the Credit First Nations delivers the land acknowledgement at the launch of phase two of the Seabin Program at Pier 6 in Toronto's inner harbour.*





# I.

## Ecosystem Protection

LIFE ON LAND



### Wildlife Management

PortsToronto has dedicated wildlife officers and works with Falcon Environmental Services — a recognized leader in the field of wildlife management — at both Billy Bishop Airport and the Port of Toronto. To ensure the safety of our passengers — and in accordance with Transport Canada requirements and Canadian Aviation Regulations — Billy Bishop Airport, like all major airports across North America, runs a comprehensive Wildlife Management Program dedicated to keeping birds out of aircraft flight paths and ensuring runways are free of birds and other wildlife.

As part of the airport's program, our dedicated wildlife officers deter birds and other wildlife by using natural deterrence methods, such as monitoring movements and behaviour, maintaining proper grass levels and landscaping, using falcon kites and installing physical barriers.

#### ST. JOHN AMBULANCE THERAPY DOG PROGRAM AT BILLY BISHOP AIRPORT

As part of the St. John Ambulance Therapy Dog Program, therapy dogs like Pablo, a three-legged Australian Cattle Dog, bring comfort and stress relief to travellers of all ages.

The SJA Therapy Dog program has been bringing joy and comfort to Canadian communities for more than 25 years, offering canine companionship at hospitals, senior residences, care facilities, schools and community centres. Today, more than 3,300 therapy dog teams reach thousands of people each year across the country.

### OUR FEATHERED AND FOUR-LEGGED FRIENDS

Pablo, an Australian Red Heeler Cattle Dog, lost his leg in a cattle-herding accident when he was just four months old. The spirited, three-legged dog now offers comfort to others as a SJA therapy dog, eliciting smiles and calming anxious travellers.

Strategically located at ports of entry across Canada, Detector Dogs, also known as Sniffer Dogs, help the Canada Border Services Agency (CBSA) by detecting prohibited and regulated drugs, guns, money, food, plant and animal products.

Juliette and Lucy are members of Falcon Environmental's wildlife management team, who work hard to keep Billy Bishop Airport's runways safe.





I.

# Ecosystem Protection

## Maintaining Biodiversity by Protecting the Monarch Butterfly

While recent numbers are encouraging, the number of monarch butterflies migrating south along the shores of the Great Lakes to Mexico each year continues to be threatened by above-average temperatures brought on by global warming and loss of native plant habitat, such as milkweed. The milkweed serves as the butterflies' primary food source along their route to the south.

To support an increase in the butterfly population, PortsToronto recruited the help of Grade 2 and 4 students at Voice Integrative School to plant a butterfly garden at the Outer Harbour Marina. The garden is stocked with hundreds of milkweed plants, as well as other native plants that appeal to the monarch butterfly. PortsToronto continues to maintain the garden and invest in new native pollinator plants in order to provide a permanent stopover for migrating birds and butterflies conveniently located on the shores of Lake Ontario.

The garden was designed by Evergreen Canada and features perching areas for the butterflies and other pollinators, as well as avian habitat space for the wide variety of bird species that use the Leslie Street Spit area as a stopover point on their own annual journeys south.



### HARBOUR CLEAN-UP PROGRAM AND HOTLINE

As part of our commitment to keeping the harbour clean, PortsToronto manages a 24/7 Harbour Hotline (416-462-3937) and responds immediately to reports of pollution, spills and debris in the harbour. Through the program, we remove approximately 150 million pounds (more than 68,000 tonnes) of dredgeate, debris and driftwood from the harbour each year.

In 2020, PortsToronto crews responded to 14 calls reporting debris and spills to the Harbour Hotline.



*Members of the Sustainability Committee regularly renew the Native Bee and Monarch Butterfly Garden at the Outer Harbour Marina with native plants, including bee balm, black-eyed Susans and chives. The garden is stocked with milkweed plants, as well as other native plants that appeal to the monarch butterfly and native bees that use the Leslie Street Spit area as a stopover point on their own annual journeys south.*



## II.

# Environmental Performance

LIFE  
ON LAND



## Environmental Laws

PortsToronto strives to manage all our operations in a sustainable manner with minimal environmental impact and, like all ports and airports, is subject to environmental regulations and laws which are governed by federal and provincial agencies including Environment and Climate Change Canada, Department of Fisheries and Oceans Canada, and the provincial Ministry of the Environment, Conservation and Parks. PortsToronto conducts internal reviews of environmental compliance, as well as associated record-keeping and data-management practices. Additionally, members of each business unit meet on a regular basis as part of the organization's Sustainability Committee and discuss areas where progress can be made to increase environmental efforts. In 2020, there were no incidents of significant environmental non-compliance, no orders issued, and no fines levied against PortsToronto by any regulatory agency.

In January, February and December 2020, sampling of the effluent from the wastewater treatment facility at PortsToronto's marine terminal properties identified three exceedances of our Environmental Compliance Approval. As PortsToronto contracts the management of the wastewater treatment facility at the marine terminal property to an external party, the contractor proactively self-reported the non-compliance with the provincial Ministry of the Environment, Conservation and Parks. While the treated effluent discharged into the surface water posed no impact to the natural environment, PortsToronto has put in place additional proactive measures to further reduce possibilities of non-compliance from the wastewater treatment plant.

Furthermore, there have been no incidents of significant environmental non-compliance and no fines levied against PortsToronto over the past ten years. This is a result of PortsToronto's efforts to follow best practices from around the world to achieve our sustainability goals and prevent pollution at Billy Bishop Airport, the Outer Harbour Marina and our owned operations at the Port of Toronto.

PortsToronto also undertakes regular detailed environmental compliance audits.





## II.

# Environmental Performance

LIFE  
ON LAND



## Environmental Management Systems

As a steward of the waterfront for over 100 years, PortsToronto has a legacy of environmental responsibility. This is achieved, in part, by maintaining and utilizing management practices and standard operating procedures (SOPs) for each function PortsToronto undertakes.

The products necessary for the safe operation and maintenance of PortsToronto's equipment and facilities are managed and contained in a rigorous manner to ensure safety and the protection of the environment. Strict protocols are in place for daily operations, such as aircraft fueling, to reduce the risk of spills. In the unlikely event of a spill, PortsToronto's Works and Environmental Services Department and the airport's fire and maintenance departments are thoroughly trained in mitigation and cleanup methods to prevent contaminants from entering the natural environment.

### DE-ICING AND GLYCOL CONTAINMENT AT BILLY BISHOP AIRPORT

PortsToronto is committed to protecting the water environment and preserving the natural habitat for all users of the waterfront. A key aspect of this is the collection and containment of glycol used in the de-icing of aircraft. PortsToronto manages aircraft de-icing and anti-icing fluids with a dedicated glycol management system that traps system runoff and thoroughly contains glycol from de-icing and anti-icing operations. In addition, the glycol pumping system features a duplex pump, which offers further protection against runoff.

### STORM WATER MANAGEMENT AND GLYCOL CONTAINMENT PLAN

In late 2019, Billy Bishop Airport commenced a study on its current storm water management and glycol containment plan. The purpose of the study is to assess the airport's current storm water discharge system and to provide recommendations with respect to potential improvements, recognizing the need for the airport to maintain environmental compliance. The study will report on glycol management practices and provide a long-term de-icing strategy, including a report on the facilities required for aircraft de-icing and the responsible management of spent aircraft de-icing fluids.



## II.

# Environmental Performance

LIFE  
ON LAND



## Environmental Management Systems

### PFAS-FREE FIREFIGHTING FOAM (AFFF)

Per- and Polyfluoroalkyl Substances (PFAS) are a group of thousands of manufactured chemical compounds that have been widely in use since the 1940s in everyday items like stain resistant fabric, water repellent clothing, food wrappers and non-stick cookware. Most importantly for airports, firefighting foam (Aqueous Film Forming Foam known as AFFF) contained PFAS, and for years, airports around the world have been mandated to use this material in their Airport Rescue and Firefighting efforts without alternative.

In recent years, research has emerged indicating that PFAS can lead to adverse health effects, especially given its presence in many items that we use every day. In response to this growing global concern, in June 2019 Transport Canada approved a PFAS-free foam exemption nationally, and Billy Bishop Airport immediately took action to implement it. In line with our efforts to protect the environment, once Transport Canada approval was granted, in August 2019 Billy Bishop Airport became the first airport in Canada to implement the use of PFAS/AFFF-free foam for its firefighting efforts.

### DID YOU KNOW?

In August 2019, Billy Bishop Airport received approval from Transport Canada and became the first airport in Canada to use PFAS/AFFF-free foam for its firefighting efforts.

### DID YOU KNOW?

Per- and polyfluoroalkyl substances (known as PFAS) are a group of chemicals that have been used since the 1940s in a wide variety of products such as non-stick cookware, stain resistant fabric, water repellent clothing, food wrappers and firefighting foam (Aqueous Film Forming Foam, known as AFFF).



## II.

# Environmental Performance

LIFE  
ON LAND



## Waste Management

PortsToronto has long recognized the benefits of recovering, reusing and reintegrating waste, such as end-of-life electronics or food scraps, back into our local economy. By continuing to keep responsible, efficient and innovative waste management top of mind, PortsToronto is joining a growing wave of consumers and businesses shifting toward sustainable and circular waste management systems.

While the waste management contract is handled centrally at PortsToronto's head office, each business unit maintains its own receptacle and strives to:



Ensure proper disposal of all hazardous waste.



Capture all valuable waste streams (such as scrap metal, electronics and tires).



Promote general recycling and composting both at home and in the office.

Some of the ways in which PortsToronto manages waste include:

- The collection and recycling of all used electronics (computer monitors, printers, smartphones, etc.), batteries, toners and cartridges;
- The placement of blue bins at all worksites and work stations to encourage recycling;
- The digitization of our communications, making all reports/publications available online to reduce the need for print copies;
- Replacing all pod-based coffee makers with machines that use loose beans to eliminate coffee pod waste;
- Providing all employees with a reusable water bottle and banning single-use plastic straws and water bottles from all offices; and
- Encouraging employees through newsletters and initiatives to think twice about waste diversion and to promote recycling and composting.

DID YOU  
KNOW?

PortsToronto provided all employees with a reusable water bottle and banning single-use plastic straws and water bottles from all offices.





## II.

# Environmental Performance

LIFE  
ON LAND



### DIGITIZATION OF ARCHIVES

More than 10,000 documents have been digitized from PortsToronto's extensive historical archives—some dating as far back as the 19th century. The new digital archives will serve to further reduce PortsToronto's paper consumption by creating easily accessible online databases and encourage staff to think twice before printing materials.

### HAZARDOUS WASTE RECYCLING

Billy Bishop Airport is committed to ensuring that hazardous waste is properly contained and recycled. This includes hazardous oil-based paint such as primers, stains, thinners, aerosols and electronic waste such as monitors, printers, charging cords, speakers, radios, headsets and outdated fluorescent bulbs.

### REPURPOSING DRIFTWOOD

The driftwood collected by PortsToronto is delivered to a facility where it is carefully separated, inspected and repurposed into raw material for the manufacturing of animal bedding and mulch, among other things.

### SUSTAINABLE SEWAGE SOLUTIONS

PortsToronto's wastewater treatment facility at the Marine Terminal property manages sewage by means of a Rotating Biological Contactor (RBC). Also known as rotating biological filters, RBCs are fixed-bed reactors consisting of stacks of rotating disks mounted on a horizontal shaft. They are partially submerged and rotated as wastewater flows through. RBCs are used in conventional wastewater treatment plants as secondary treatment after primary sedimentation of domestic grey or blackwater, or any other biodegradable effluent. The microbial community is alternately exposed to the atmosphere and the wastewater, allowing both aeration and assimilation of dissolved organic pollutants and nutrients for their degradation.

#### DID YOU KNOW?

In 2020, PortsToronto's Works and Environmental Services department reached out to Standard Auto Wreckers and Charity Car Program to recycle nine end-of-life vehicles. The vehicle donation resulted in a \$2,000.00 donation to 10,000 Trees for the Rouge, a volunteer, non-profit group dedicated to restoring natural habitat within the Rouge Valley.

#### DID YOU KNOW?

Since 1989, 10,000 Trees for the Rouge volunteers have helped to restore over 200 acres of fragile watershed land. Their plantings protect creeks and streams in the Rouge watershed from soil erosion, helping to link existing islands of forest and extending wildlife corridors.

## II.

# Environmental Performance

LIFE ON LAND



### GREEN BINS GROWING COMPOSTING PROGRAM

PortsToronto managed its organic food waste in partnership with Wastenot Farms and its Green Bins Growing composting program between April 2019 and the closure of the business in August 2020 due to the economic impacts of COVID-19. A closed-loop solution to food waste, this program collected and transported food waste by green-energy vehicle to a local Red Wiggler worm hatchery. By ingesting nutrients found in the collected food waste, the worms would produce worm castings biofertilizer — an all-natural substitute to synthetic fertilizers.

Through the Green Bins Growing program, PortsToronto was able to redirect organics from landfill, produce all-natural biofertilizer, reduce carbon emissions, engage employees in sustainable behaviours and improve our overall environmental impact.



The Sustainability Committee is actively researching new composting opportunities for all PortsToronto business units.

### DID YOU KNOW?

Biofertilizers, such as the worm castings produced from PortsToronto's food waste, are full of microbes that continuously feed nutrients to plants and vegetables through the soil.

## II.

# Environmental Performance

LIFE  
ON LAND




### SINGLE-USE PLASTICS

Thanks to our Sustainability Committee, single-use plastic straws and water bottles have been banned in all of PortsToronto's business units since 2019. To eliminate the need for these items, PortsToronto has provided all employees with a reusable water bottle and water refill stations are located in the offices and facilities of PortsToronto's business units, in addition to the passenger lounges at Billy Bishop Airport and tenant spaces at the Outer Harbour Marina.

PortsToronto continues to work with airport passenger terminal operator Nieuport Aviation Infrastructure Partners to encourage passengers to travel with reusable water containers, reducing the need for plastic water bottles in the Billy Bishop Airport lounge. When going through security at Billy Bishop Airport, passengers are required to empty their water bottles as liquids over 100 millilitres are not permitted by the Canadian Air Transport Security Authority (CATSA). The installation of water stations on the other side of security enables passengers to refill their water bottles, eliminating the need to purchase or use plastic bottles.

### DID YOU KNOW?

Queens Quay Terminal, where PortsToronto headquarters is located, uses water from the Inner Harbour for air conditioning in the summer, reducing the building's electrical consumption.



Since 2016, the water refilling stations in Billy Bishop Airport's passenger lounges have prevented more than 360,000 plastic water bottles from being sent to landfills.

The water refilling station at PortsToronto HQ has saved more than 10,000 plastic water bottles from being sent to landfills.

Terminal owner/operator Nieuport Aviation Infrastructure Partners in partnership with their Food and Beverage service provider SSP Canada have diverted over 20,000 pounds of waste from the landfill by replacing biodegradable single use cutlery and plates at Billy Bishop Airport restaurants with reusable silverware and charcuterie boards.



## II.

# Environmental Performance

LIFE ON LAND



### CASE STUDY: URBAN LITTER CHALLENGE

In September 2020, PortsToronto volunteers and members of the Sustainability Committee were proud to support the University of Toronto Trash Team's second annual Urban Litter Challenge. Part of the Great Canadian Shoreline Cleanup, the Urban Litter Challenge asks teams of volunteers to collect litter in neighbourhood parks and encourages reflection on the interconnectivity of our watershed, in which storm drains connect with larger waterways and render inland litter a danger to Lake Ontario.

This year, taking COVID-19 restrictions in stride, the Trash Team hosted a "socially-distanced" edition of the cleanup with safety measures in place at 11 cleanup sites across the city.



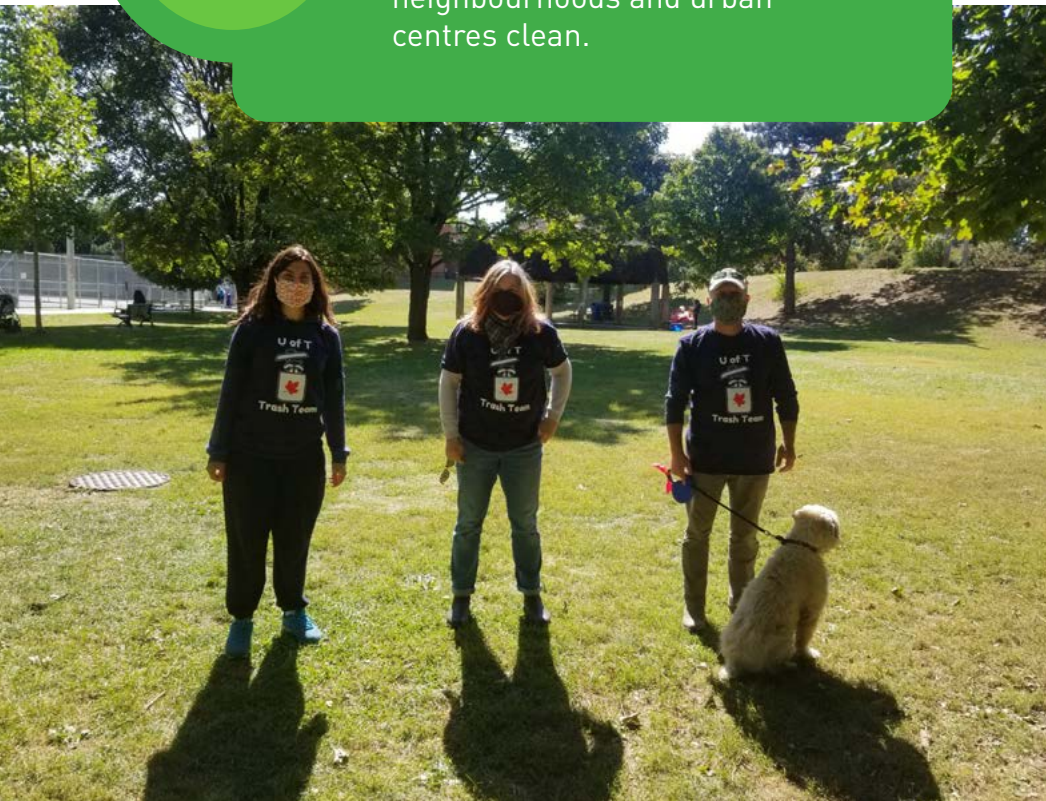
**Member of Parliament for Toronto—Danforth, Julie Dabrusin, joined the volunteers at Monarch Park.**

*A great way to start the day on #WorldCleanupDay with a clean up at Monarch Park. So many cigarette butts (we collected over 250 in one hour!). Much more to do to #BeatPlasticPollution.*

@juliedabrusin

### DID YOU KNOW?

Everything upstream connects to Lake Ontario via storm drains, rivers, streams, and creeks in a watershed. Keeping Lake Ontario clean means keeping our inland neighbourhoods and urban centres clean.



## II.

# Environmental Performance

### BY THE NUMBERS

The 2020 Urban Litter Challenge hosted by the University of Toronto Trash Team gathered 173 volunteers at 11 cleanup locations throughout the city. The collective cleaned 19 kilometers of parkland in the city, removing 25,595 items or 184 kilograms of litter.

The Water Brothers, hosts of a TVO eco-adventure documentary series, were shocked to find AstroTurf among the litter items they collected during the Urban Litter Challenge.

The top ten most common items found across all 11 sites were:



*“My wife Annemarie and I, and our dog Odie, helped to clean up Rennie Park in Toronto’s west end. At first glance, the park seemed quite clean; however, after a couple of hours of work we accumulated a large amount of litter from cigarette butts to discarded facemasks largely in and around the parking lot. What a great way to enjoy a beautiful day and do our small part for the environment”.*

— Chris Sawicki, Vice President of Infrastructure, Planning, and Environment with PortsToronto

### DID YOU KNOW?

Since its inception in 1994, Canadians removed over two million kilograms of litter from shorelines across Canada through the Great Canadian Shoreline Cleanup. The most common pieces of litter on our shorelines are single-use or short-lived products (many containing plastics) such as cigarette butts, bottles and caps, bags and straws.





**PARTNERSHIPS  
FOR THE GOALS**



# Part 4: Partnerships for the Goals







# Part 4: Partnerships for the Goals

PortsToronto connects Toronto to the world, whether welcoming travellers to and from Toronto through Billy Bishop Toronto City Airport, importing and exporting goods through the Port of Toronto or through the connection made with one's natural surroundings at the Outer Harbour Marina and the Leslie Street Spit.

Now, more than ever, connections and strong cooperation at all levels are needed to achieve the UNSDG goals. As part of a thriving mixed-use waterfront, PortsToronto works closely with government partners, waterfront and airport stakeholders and our local community to build a sustainable Toronto for future generations to enjoy.

PortsToronto's targeted priority areas in this category are:



Implementing Sustainable Practices with our Partners



Stakeholder and Community Engagement





## I.

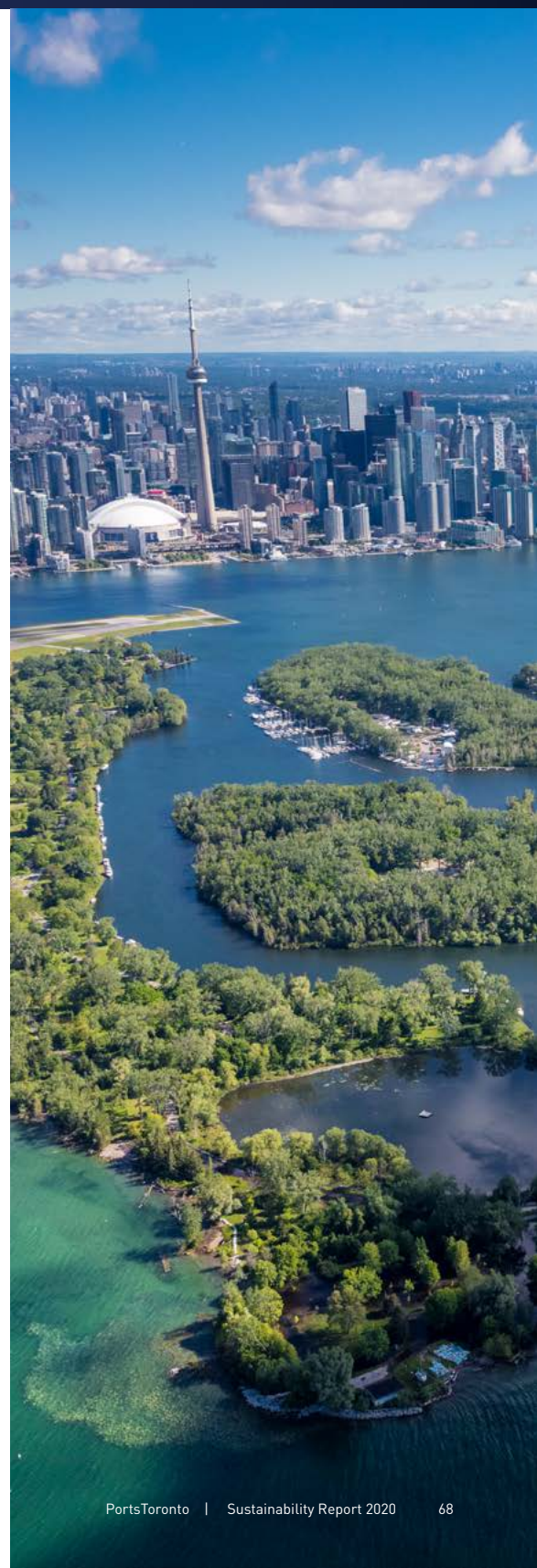
# Implementing Sustainable Practices with our Partners

## Collaborating with our Government Partners

PortsToronto is a key federal agency that works with other organizations to manage the harbour, engage in sustainable initiatives and work collaboratively to ensure a vibrant waterfront. As such, our management and staff members are engaged with all levels of government to ensure collaboration and coordination of current operational works and future projects along the waterfront. PortsToronto has regular meetings with the City of Toronto, Transport Canada, Waterfront Toronto and the Mississaugas of the Credit First Nation, and is a member of several Landowner and Stakeholder Advisory Committees for projects including the Bathurst Quay Neighbourhood Plan, Waterfront Transit Reset, the Waterfront School Playground Master Plan, Toronto Island Master Plan and the Port Lands Planning Framework.

PortsToronto staff also provide technical support to several agencies and committees on projects including the Port Lands Flood Protection and Enabling Infrastructure Project, Port Lands Public Realm and River Project, and the Gibraltar Point Erosion Control Project.

We are also a key agency supporting the work of Aquatic Habitat Toronto (AHT), which represents a consensus-based partnership among agencies with a vested interest in the improvement of aquatic habitat on the Toronto Waterfront.





I.

# Implementing Sustainable Practices with our Partners

## AQUATIC HABITAT TORONTO

Our commitment to environmental issues prompted us to become an active member of the Aquatic Habitat Toronto Team since its inception in 2003. The Aquatic Habitat Toronto Team is a consensus-based partnership among agencies with a vested interest in the improvement of marine habitat on the Toronto waterfront.

Team partners include Fisheries and Oceans Canada, the Ontario Ministry of Natural Resources and Forestry, Toronto and Region Conservation Authority, and Waterfront Toronto, with key participants from Environment Canada and in consultation with the City of Toronto. Aquatic Habitat Toronto is responsible for the implementation of the Toronto Waterfront Aquatic Habitat Restoration Strategy.

Striving to create a more sustainable waterfront through an ecosystem approach, the strategy seeks to increase ecological integrity, provide suitable conditions for the maintenance of self-sustaining aquatic communities and improve ecological connectivity. Conservation design in the strategy is based on native naturalized species. Human usage of the shoreline and nearshore waters was taken into account during development of the design, and the strategy for it was based on a consultative, consensus-based approach involving stakeholders and the public.

## MANAGING THE EFFECTS OF RECORD-HIGH WATER LEVELS WITH OUR PARTNERS

Record-high water levels in recent years have subject Toronto to severe flooding, particularly on the Toronto Islands. In order to both mitigate the effects of flooding and assist in restoration efforts, PortsToronto is working closely with waterfront partners including the City of Toronto and Toronto Region Conservation Authority.

In 2021 and beyond, PortsToronto will continue to play an important role in supporting flood mitigation efforts in Toronto through its annual dredging activities, maintaining key infrastructure assets and working to restore the impacts to the natural landscape, such as erosion caused by high water levels.

### DID YOU KNOW?

Lake Ontario experienced record-high water levels in 2017 of 75.88 metres and just two years later in 2019, exceeded that level with a new record of 75.92 metres.



PortsToronto's dredging activities assist with flood prevention, maintaining a safe navigable harbour for vessels, and creating natural habitat at the Leslie Street Spit.





I.

# Implementing Sustainable Practices with our Partners

## DON RIVER MOUTH NATURALIZATION

PortsToronto works with agencies from all levels of government and First Nations communities toward building a sustainable marine environment and is providing support to the City of Toronto, the Toronto and Region Conservation Authority and Waterfront Toronto to naturalize the Don River and protect the Port Lands from flooding. PortsToronto management and staff provide ongoing support to this project as members of technical working groups, both by providing operational advice and ensuring continued navigation safety of the Toronto Harbour.

## NEW PORT LANDS BRIDGE

In early November 2020, as part of the ongoing Don River Mouth Naturalization Project, the Port of Toronto saw the eagerly awaited arrival of Waterfront Toronto's new Port Lands Bridge. The bridge, which left Dartmouth on October 29, was transported to Toronto through the seven locks of the Montreal – Lake Ontario section of the St. Lawrence Seaway. Its 8.5-day, 1250-nautical mile journey aboard McKeil Marine barge Glovertown Spirit, transported by the tug Lois M., took the bridge from the salt water of the Dartmouth Harbour to Lake Ontario's fresh water, passing through four Canadian provinces on its way. This delivery further demonstrates the Port of Toronto's role as part of an important supply chain that offers a convenient, cost-effective and environmentally responsible way of bringing goods into Canada's largest city.

24/7  
Harbour  
Hotline  
(416-462-3937)

PortsToronto manages a 24/7 Harbour Hotline to assist with removing large-scale debris from the harbour and collaborates with waterfront partners such as the TRCA on initiatives such as the Clean Water: Our Future shoreline cleanup event. In 2019, the PortsToronto team also took part in tree planting on Centre Island to replace trees damaged during the high water levels experienced over the last few years.

## DID YOU KNOW?

The bridge passed through the Eastern Gap in the Port of Toronto to access Toronto's inner harbour and the Keating Channel. The Eastern Gap has a depth of 8.3-metres (also known as Seaway depth) and is the entry point for some 200 ships that visit the Port of Toronto every year.





I.

# Implementing Sustainable Practices with our Partners

## CLEAN WATER: OUR FUTURE

In recent years, Lake Ontario’s unprecedented high water levels have washed ashore metal and plastic debris, old wooden piles and cables and large amounts of driftwood on the Toronto Islands. In response, the Toronto and Region Conservation Authority (TRCA) brought together volunteers from the Greater Toronto Sewer and Watermain Contractors Association, Galcon Marine, City of Toronto Parks, Forestry and Recreation, the Toronto Police Marine Unit and PortsToronto to collaborate on an annual shoreline cleanup.

Though the group was unable to join forces in 2020 due to the pandemic, by pooling resources and volunteers in 2018 and 2019, the collective has planted 38 trees at Toronto Island Park, cleaned Toronto Island shorelines and removed large, heavy items submerged in the waters of Lake Ontario. As a guardian and steward of Toronto’s waterfront resources, PortsToronto is proud to collaborate with the broader waterfront community to ensure future generations can continue to enjoy the city’s vibrant shores and waterways.

*“By collaborating with our partners, we are able to have a greater collective impact in protecting and restoring our natural environment. TRCA has always enjoyed an excellent working relationship with PortsToronto, and was proud to join forces with this incredible team of volunteers to support the recovery of the Toronto Islands.”*

-John MacKenzie, CEO, Toronto and Region Conservation Authority

### DID YOU KNOW?

To remove heavy items like the abandoned golf cart and bicycles from the water, Toronto Police Service’s Marine Unit Dive Team located and attached cables to sunken items while PortsToronto’s Works and Environmental Services Department, aboard the Iron Guppy tugboat, extracted them from the waters of Toronto’s harbour and removed them for safe disposal by barge.

### 19 TONNES OF DEBRIS

In 2018 and 2019, the group collected and removed a total of 19 tonnes of debris from the waters of the Eastern Gap and the Toronto Islands. Among the notable items removed were a golf cart, abandoned boats, two sunken bikes, two lawn mowers, a microwave, a large piece of scaffolding and any driftwood, plastic or manufactured material that posed a navigational hazard.





## II.

# Stakeholder and Community Engagement

## Billy Bishop Airport Master Plan

The Master Plan for Billy Bishop Toronto City Airport focuses on areas such as infrastructure requirements, activity forecasting, environmental initiatives and future planning. The Master Plan is available on the Billy Bishop Airport website and details priorities for Billy Bishop Airport as well as outlining key recommendations to support the airport's commitment to managed growth that balances airport operations with community interests.

### VISION

Billy Bishop Airport strives to be a global leader in how a modern airport operates in an urban environment.

## Community and Stakeholder Engagement

The planning process for the Billy Bishop Airport Master Plan included comprehensive public consultation and stakeholder engagement. More than 90 meetings were held with neighbourhood associations, agencies including First Nations leaders, elected officials, local businesses, airport stakeholders and community groups. Three public meetings were also held to present updates on key areas of interest and to kick off a 60-day public comment period when the draft could be reviewed and comments submitted. These comments were then reflected in the final draft.



The Billy Bishop Toronto City Airport Master Plan won the 2020 Airports Council International (ACI-NA) Environmental Achievement Award.



*“The Master Plan – titled Cleaner, Greener, Quieter – demonstrates the significant results that YTZ has achieved in sustainability and refines its vision to be a global leader in how a modern airport operates in an urban environment. The theme, multiple stakeholder coordination, and the integration of sustainability and outreach into this project stood out for the judges.”*

—Kevin M. Burke, ACI-NA  
President and CEO







## II.

# Stakeholder and Community Engagement

### Public Outreach and Meetings

Billy Bishop Airport established a Community Liaison Committee (CLC) in 2010 to further expand engagement with the residents and businesses surrounding the airport. The CLC gives our neighbours a forum to discuss issues and concerns related to airport development, activities and operations. The committee also enables airport management to communicate operational activities and information with stakeholders and the broader community.

Key representatives from neighbourhood community groups, local businesses and stakeholders, as well as local city councillors and members of provincial and federal parliaments, make up the membership of the CLC. The committee follows best practices of community engagement, meeting four times a year and addressing matters such as airport noise management, air quality and transportation access. In 2020, the CLC met four times, with the last three meetings being held online via Zoom to comply with public health guidelines specific to public gatherings and physical distancing.

### CLC Noise Management Sub-Committee

A Noise Management Sub-Committee of the CLC was formed in late 2017 to further research, understand and address noise impacts from airport operations. The Noise Sub-Committee consists of four community members, two staff members from PortsToronto, one staff member from the City of Toronto and a facilitator from Lura Consulting. The committee has two co-chairs, one from the community and one from PortsToronto. The committee met three times in 2020.



CLC Noise Management  
Sub-Committee met three times in 2020.



Community Liaison  
Committee (CLC) met four  
times in 2020.





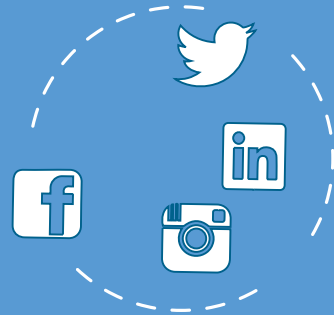
## II.

# Stakeholder and Community Engagement

### Connecting Online

It is no surprise that online communications have become an effective tool in communicating with stakeholders, communities and the public. PortsToronto maintains positive relationships and strong connections with our neighbours and stakeholders through open dialogue, transparency and public participation.

The PortsToronto website provides key updates regarding news and information that is relevant to our stakeholders and the community, and includes a feedback portal that allows passengers, residents and stakeholders to quickly and easily contact us with their feedback, concerns and questions. This system also provides an opportunity to track common concerns and trending topics that help us best address the needs of our local community.



### Social Metrics

With an estimated 60 per cent of Canadians spending their time online engaging on social media, PortsToronto continues to prioritize engaging with the public through social media platforms and manages active accounts on Twitter, Facebook, Instagram and LinkedIn in both of Canada's official languages for each business unit.

Whether promoting community and PortsToronto-related events, sponsorships or news items, or responding directly to concerns, questions or compliments from airport passengers and the local community, social media have become an effective and crucial tool for public engagement.

- PortsToronto's social media audience saw a 4.7 per cent increase overall from 2019, with notable growth in its LinkedIn community, which saw 66.7 per cent audience growth over 2019.

- While our engagement rates fell in March 2020 due to the COVID-19 pandemic and resulting commercial airline service suspension at Billy Bishop Airport, PortsToronto's Twitter and LinkedIn accounts saw an increase in audience engagement rates of 10.5 and 311 per cent respectively.

**BE KIND, STAY HOME, SAVE LIVES.**

4.7%  
increase overall.

↑

Twitter LinkedIn  
accounts saw an increase in audience engagement rates of 10.5% and 311% respectively.



INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



# Part 5: Industry, Innovation and Infrastructure







## Part 5: Industry, Innovation and Infrastructure

Since the beginning of the 20th century, PortsToronto has made strategic investments in Toronto's waterfront through our efforts to build resilient infrastructure, promote sustainable industrialization and foster innovation.

From implementing various infrastructure improvements in the vicinity of Billy Bishop Airport as part of the City of Toronto-led Bathurst Quay Neighbourhood Plan, to adopting an organization-wide sustainable procurement policy, to supporting the University of Toronto Trash Team's innovative plastic pollution-fighting research, PortsToronto prioritizes projects that benefit our community.

PortsToronto's targeted priority areas in this category include:



City Building  
and Investing in  
Resilient Public  
Infrastructure



Fostering  
Innovation





I.

# City Building and Investing in Resilient Public Infrastructure

The Greater Toronto Area (GTA) is projected to be the fastest-growing region of the province, with its population increasing by 3.4 million, from 6.8 million in 2018 to over 10.2 million by 2046.<sup>15</sup> In order to meet the needs of growing urban populations and adapt to climate change, increased investment will be needed to repair and modernize key infrastructure in Canadian cities.<sup>16</sup>

## Investing in the Waterfront

Since the beginning of the 20th century, PortsToronto has made strategic investments in Toronto's waterfront and in developing transportation infrastructure for the city. As the owner and operator of the marine Port of Toronto and Billy Bishop Airport along the waterfront, PortsToronto reinvested nearly \$14 million in port and airport infrastructure in 2020.



Around the time of Confederation, over 150 years ago, approximately 84 per cent of Canada's population lived in rural areas.<sup>18</sup> By 2016, 81.0 per cent of Canada's population was living in urban areas.<sup>19</sup> By 2030, the percentage of Canadians living in urban areas is forecast to reach 84 per cent.<sup>20</sup>

### DID YOU KNOW?

Cities occupy just three per cent of the Earth's land, but account for 60-80 per cent of energy consumption and 75 per cent of carbon emissions.<sup>17</sup>



15. Ontario Ministry of Finance, *Ontario Population Projections, 2018-2046*  
 16. *Canada 2030: The Defining Forces Disrupting Business*  
 17. *UNSDG 11: Sustainable Cities and Communities*  
 18. *Canada 2030: The Defining Forces Disrupting Business*  
 19. *Statistics Canada, Canada Goes Urban*  
 20. *The Guardian "Percentage of Global Population Living In Cities."*



I.

# City Building and Investing in Resilient Public Infrastructure

## Sustainable Procurement Policy

PortsToronto has adopted a sustainable procurement policy that seeks out businesses that share our commitment to sustainability. To influence our impacts both upstream (e.g. purchasing) and downstream (e.g. product waste), the policy adopts the following guiding principles to consider when procuring goods and services:

I.

Limit demand on raw natural resources

II.

Avoid non-natural substances to limit material produced by society

III.

Source material that limits degradation of the natural environment

IV.

Ensure health and safety of society to meet human needs

## Sustainable Site Design

Best practices related to sustainability and environmental protection are followed by PortsToronto and its contractors during all planning, development and operational phases of any project activity. The following initiatives have been implemented by PortsToronto to raise the bar on sustainable site-design and construction activity.



DID YOU KNOW?

PortsToronto collaborated with Toronto architectural firm, Cumulus Architects, and Mississauga's Trisect Construction to complete the new Works and Environmental Services facility, which officially opened on September 25, 2020. The new facility also features long-reach jib cranes with spherical roller bearings that were manufactured locally in Ontario.





I.

# City Building and Investing in Resilient Public Infrastructure

## Billy Bishop Airport City Side Modernization Project

PortsToronto's City Side Modernization Project, which focused on the improvement of passenger and vehicle traffic operations at Billy Bishop Airport, is part of the multi-partner, multi-phase Bathurst Quay Neighbourhood Plan (BQNP) being led by the City of Toronto. Among other improvements, the BQNP will improve pedestrian experience and comfort in the vicinity of the airport and improve the public realm for the enjoyment of both the community and travellers.

In 2019, as part of the first phase of the City Side Modernization project and in alignment with changing traffic patterns at the airport, PortsToronto consolidated passenger pick-up locations within a streamlined and optimized arrivals curb. Improvements included additional signage and colour-coded pavement markings to indicate pedestrian routes to public transportation, taxi corral and passenger pickup, as well as signage throughout the traffic circle and Eireann Quay to connect transportation partners, including ride-share operators, with arriving passengers.

In early 2020, when the COVID-19 pandemic caused much of the world to stand still and a temporary suspension of commercial airline service at Billy Bishop Airport came into effect, PortsToronto leveraged the significant reduction in vehicle and passenger traffic at the airport to bring forward and maximize efficiency in completing the second phase of the project ahead of schedule.

The second phase of the project consisted of various improvements in the vicinity of the airport and Eireann Quay designed to further reduce congestion and idling, improve pedestrian safety and experience, and better streamline passenger and traffic flow, including:

- A full reconstruction of the Eireann Quay roadway and its east and west sidewalks;
- A reconstruction of the Billy Bishop Airport finger lot;
- A reconfiguration of the airport taxi corral to improve passenger loading and reduce its footprint; and,
- The relocation and improvement of an existing surface parking lot on the Canada Malting site, which features a new student pick up/drop off area at the Toronto District School Board (TDSB) Waterfront School.



DID YOU  
KNOW?

Among other improvements, the Bathurst Quay Neighbourhood Plan will improve pedestrian experience and comfort in the vicinity of the airport and improve the public realm for the enjoyment of both the community and travellers.



DID YOU  
KNOW?

As part of this project, Billy Bishop Airport will implement permeable paving to reduce storm water runoff and urban heat island effect.



# I.

## City Building and Investing in Resilient Public Infrastructure

INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



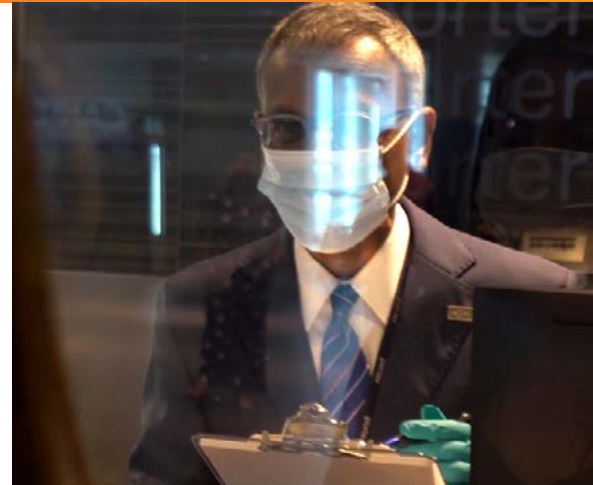
### Billy Bishop Airport Safe Travels Program

The extraordinary impact of the COVID-19 pandemic has required an equally extraordinary response on the part of the aviation industry to ensure that passengers feel confident travelling again. The Safe Travels Program, launched in August 2020, encapsulates Billy Bishop Airport's commitment to delivering a safe experience for our passengers, when the time is right to travel again, as well as those who work in the airport.

Billy Bishop Airport is unique in many ways: its island location, its proximity to Toronto's downtown core, its unmatched, scenic approach and award-winning passenger experience. It is also unique in that this crisis and the resulting temporary suspension of commercial airline service at Billy Bishop Airport afforded our team the time to step back, observe and get this right.

Billy Bishop Airport responded to the emergence of COVID-19 with a comprehensive health and safety program that is aligned with expert guidance and new industry best practices. Under the guidance of provincial and federal agencies such as Transport Canada and the Public Health Agency of Canada, Billy Bishop Airport has worked closely with its partners to implement a number of enhancements, procedures and new infrastructure to provide a safe and healthy environment for passengers, staff and partners.

Learn more about the Safe Travels Program at [www.billybishopairport.com](http://www.billybishopairport.com).







I.

# City Building and Investing in Resilient Public Infrastructure

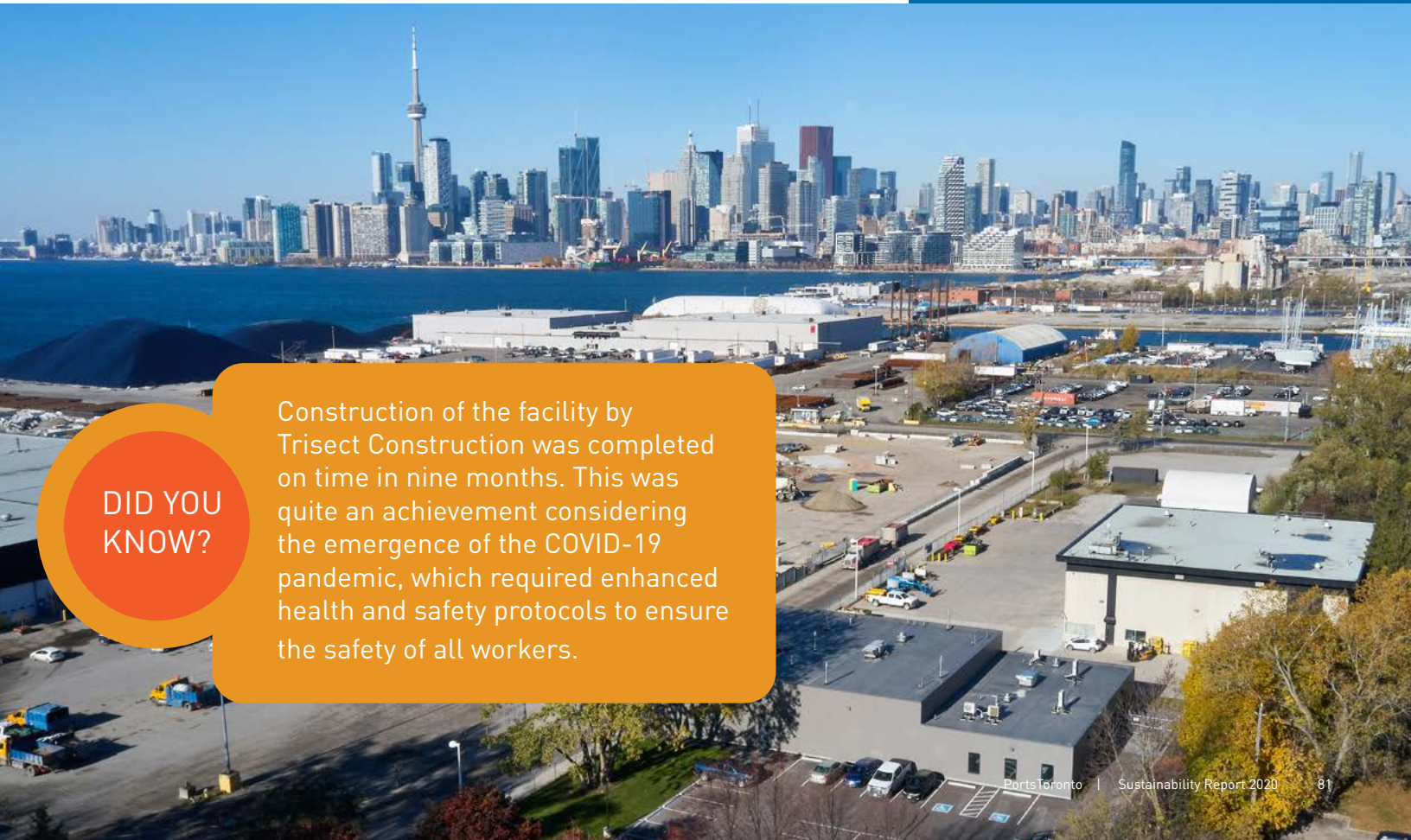
## New Works and Environmental Services Facility in the Port of Toronto

PortsToronto's Works and Environmental Services department was located at 62 Villiers Street for decades. Backing onto the Keating Channel, the site was a natural fit with easy access to the mouth of the Don River and the Eastern Channel for dredging and wetland creation – two of PortsToronto's core activities that are carried out by this team.

With the Don Mouth Naturalization and Port Lands Flood Protection project continuing to revitalize the port lands, the Villiers Street location needed to be vacated. This provided an opportunity to build a new space at the Port of Toronto tailored to the needs of the Works and Environmental Services department.



*On September 25, 2020, PortsToronto CEO Geoffrey Wilson, Vice President of Infrastructure, Planning and Environment (IPE) Chris Sawicki, Manager of IPE Bojan Drakul, and Manager of Works and Environmental Services Allan Seymour were joined by project partners Trisect Construction and Cumulus Architects in a ribbon-cutting ceremony to officially open the new facility.*



DID YOU  
KNOW?

Construction of the facility by Trisect Construction was completed on time in nine months. This was quite an achievement considering the emergence of the COVID-19 pandemic, which required enhanced health and safety protocols to ensure the safety of all workers.





I.

# City Building and Investing in Resilient Public Infrastructure

## New Works and Environmental Services Facility in the Port of Toronto

PortsToronto's Works and Environmental Services department was located at 62 Villiers Street for decades. Backing onto the Keating Channel, the site was a natural fit with easy access to the mouth of the Don River and the Eastern Channel for dredging and wetland creation – two of PortsToronto's core activities that are carried out by this team.

With the Don Mouth Naturalization and Port Lands Flood Protection project continuing to revitalize the port lands, the Villiers Street location needed to be vacated. This provided an opportunity to build a new space at the Port of Toronto tailored to the needs of the Works and Environmental Services department.

In addition to secure workshops separated from visitors, an office area and staff amenity spaces such as a large lunchroom and locker rooms for secure storage, the new facility features:

- Waterless urinals for water conservation.
- The re-utilization of a decommissioned septic bed site.
- Four new workshops with new, modern pieces of equipment, including:
  - o State of the art fume extractors covering the entire welding shop to provide improved indoor air quality.
  - o High thermal efficiency roll up doors and windows.
  - o Jib cranes, manufactured locally in Ontario, with long reach and spherical roller bearings incorporated into the building's support columns.
  - o A first-air room and eyewash stations in every workshop.



The facility is a single story, 10,460 sq.ft. facility with four workshops, office space, a lunch room and locker rooms.



The facility is approximately 30 metres long by 23 metre wide.



Its height varies from 4 metres in the office spaces to 6 metres in the workshops.



Waterless urinals for water conservation.



The re-utilization of a decommissioned septic bed site.



It is a steel structure with insulated metal panels.





## University of Toronto Trash Team

To quantify our impact and inform policy, PortsToronto partners with the University of Toronto Trash Team on research, education and outreach led by Dr. Chelsea Rochman, Assistant Professor of Ecology and Evolutionary Biology alongside Trash Team co-founders Susan Debreceni and Dr. Rafaela Gutierrez. As part of this collaborative initiative, researchers from the Rochman Lab collect and analyze the anthropogenic debris including plastics and microplastics captured by the Seabins to determine the origination of some of these materials. This process will, in turn, better inform the Trash Team's solutions-based research and community outreach program, which ultimately seeks to increase waste literacy and prevent plastics and microplastics from entering waterways in the first place.



In 2020, researchers with our partner organization the University of Toronto Trash Team conducted regular visual audits along the Toronto waterfront to help identify problem areas where floating litter typically accumulates. This research will help inform the future third phase of the PortsToronto Seabin Program.



In October 2020, the federal government announced a ban on harmful single-use plastic items such as checkout bags, straws, stir sticks, six-pack rings, cutlery and food ware made from hard-to-recycle plastics.

**2000 pieces of plastic**  
*(24 hours)*

In 24 hours, 2000 pieces of plastic were captured by two Seabins during **Phase One** of the Seabin Pilot Project at the **Outer Harbour Marina**.



**1.4 metric tonnes**

One Seabin can collect 1.4 metric tonnes of waste per year including microplastics, floating natural debris and larger plastic waste.



**100% Recyclable**

Seabin construction is 100% recyclable.



**2 mm microplastics**

The Seabins can capture microplastics as small as 2 millimeters—smaller than a grain of rice.



**1 SEABIN**

Can collect more than four kilograms of waste per day including microplastics, floating natural debris and larger plastic waste.





## CASE STUDY: Fighting Floatables in the Toronto Harbour

To combat and study single-use plastics and microplastics in our waterways, PortsToronto launched the award-winning Seabin Pilot Program in 2019 at the Outer Harbour Marina and Pier 6. Our partners, the University of Toronto Trash Team, quantified and analyzed the materials captured by PortsToronto's Seabins, a study which in turn will help inform their wider research and waste literacy efforts.

The project continued in the summer and fall of 2020 at the Outer Harbour Marina. Trash Team researchers developed protocols that quantify and characterize macro- and micro- of litter captured, and an analysis that quantifies and characterizes macro- and micro- litter captured by PortsToronto's three Seabins at the marina. These protocols are employed to report on the total amount of anthropogenic debris successfully diverted, and which types of debris are captured in each Seabin.

The Trash Team reports that over the 2020 season, between July and October, an average of 28,284 small pieces of anthropogenic debris were diverted from Lake Ontario per bin, for a total of 84,854 pieces. Other than microplastics (smaller than 5-millimetres), which are by far the most common items collected by the Seabins, other commonly found macroplastics include clear plastic packaging, hard plastic fragments from takeout containers or plastic packaging, and cigarette butts.

The top ten litter items found in the Outer Harbour Marina Seabins between July and October 2020 were:







## Vegetation as a Magnet

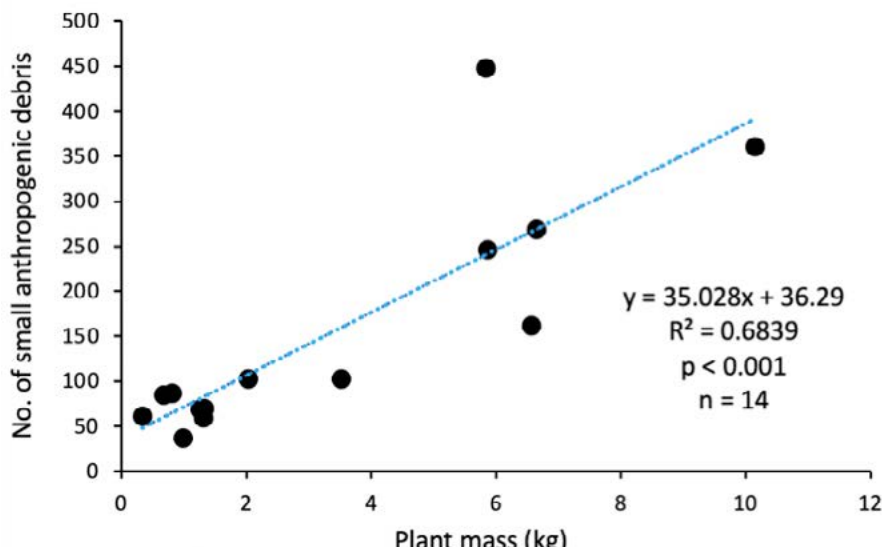
During the course of this research season, Trash Team researchers Cassandra Sherlock and Rafaela F. Gutierrez discovered that vegetation collected by the Seabins has an important role to play in accumulating microplastics. While the Seabins are effective in capturing floating litter and debris as small as 2-millimetres, water-saturated plant material collected in the bins acts as a mesh to capture tiny microplastics, such as pre-production plastic pellets, that might otherwise pass through the Seabins' capture bag. On average this season, PortsToronto's Seabins diverted 11,438 plastic pellets from Toronto's harbour.

### VISUAL AUDIT

Trash Team researchers also undertook a visual audit of water lots on the Toronto waterfront, from Ireland Park to Sugar Beach. This process involved visiting key locations at regular intervals to count and quantify floating litter. This season, researchers found over 100 different types of litter at the 12 visual audit locations. Of note, the majority of the floatable litter found were single-use plastics, including plastic straws, bottle caps and bags. This data supports the urgent need to reduce the use of harmful single-use plastics.



*A pellet – a form of pre-production plastic that comes from industry – is found tangled in vegetation collected by a Seabin at the Outer Harbour Marina by University of Toronto Trash Team researcher, Cassandra Sherlock.*



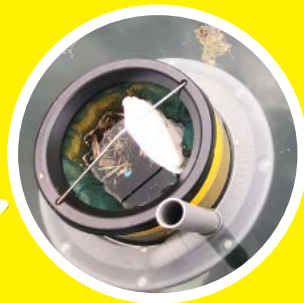
# Fostering Innovation



The top ten litter items found in the 2020 Visual Audit were:



## WHAT DOES A SEABIN LOOK LIKE



Just ONE Seabin can:

- Collect an estimated 3.9 kilograms of debris in a day, filtering as much as 1.4 metric tonnes of trash in one year;
- Intercept microfibres/plastics as small as 2 millimetres;
- Collect hydrocarbons like fuel and oil with the help of a filtration pad; and,
- As an added bonus, the Seabin's construction is 100 per cent recyclable.

## PortsToronto Seabin locations

Legend:

- Phase 1
- Phase 2



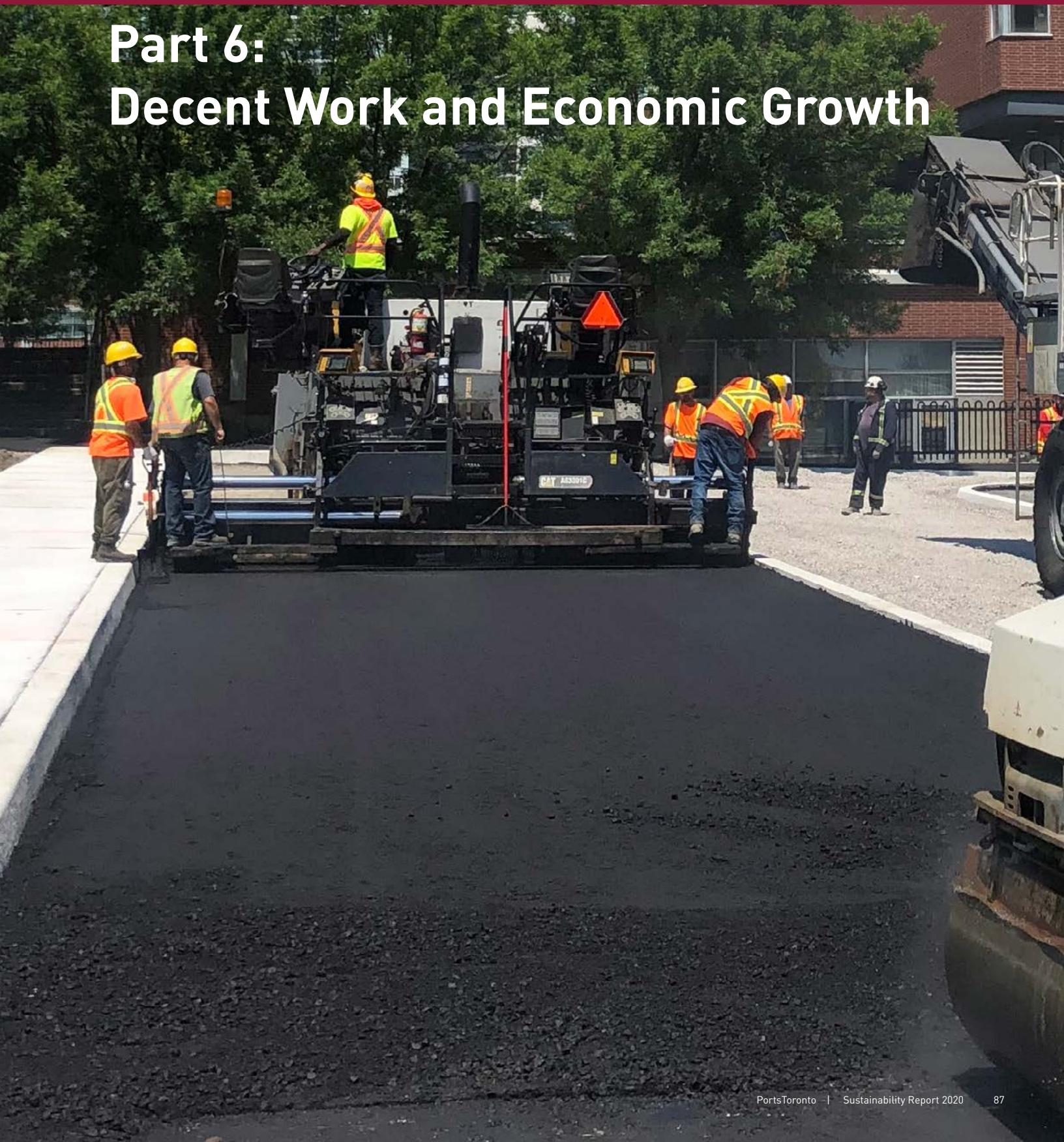




DECENT WORK AND  
ECONOMIC GROWTH



# Part 6: Decent Work and Economic Growth





# Part 6: Decent Work and Economic Growth

DECENT WORK AND  
ECONOMIC GROWTH



For PortsToronto, sustainability not only encompasses environmental and social accountability but also financial self-sufficiency. This ensures that our business remains viable, enabling us to invest back into the communities in which we operate and help to build a sustainable city. In promoting a supportive work environment and maintaining a strong record of accomplishment in health and safety performance, PortsToronto recognizes that the well-being of our employees is fundamental to the continued success of our businesses and this mission.

PortsToronto's priority areas in this category are as follows:

I.

Health and Safety

II.

Supporting Local  
Job Creation

III.

Contributing to  
Toronto's Economic  
Growth

IV.

Financial  
Sustainability

DID YOU  
KNOW?

Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards.<sup>21</sup>



AÉROPORT DE TORONTO  
**BILLY BISHOP**  
TORONTO CITY AIRPORT



21. UNSDG 8: [Decent Work and Economic Growth](#)



I.

# Health and Safety

PortsToronto prioritizes employee health and safety, with several systems in place to minimize workplace hazards, prevent injuries and educate employees on health and wellness, as well as their rights and responsibilities. The well-being of our employees is directly related to the success of our businesses, and maintaining a strong track record of health and safety performance is critical. Safe practices for PortsToronto’s employees and contractors are embedded into the day-to-day operations of our business units, and health and safety policies are implemented at all levels of our organization.

PortsToronto holds monthly Workplace Health and Safety Committee meetings, with representatives from each business unit in attendance. These meetings provide a consistent and constructive forum for communicating with employees across our organization on priority health and safety issues and programs. Each day, all of our crews conduct a Tailgate Safety Talk before heading out on the job to ensure the day’s tasks will be completed in a safe, effective and efficient manner. Further, a quarterly internal Occupational Health and Safety newsletter is shared with all employees at PortsToronto, providing tips and advice on staying safe in the workplace.

## Health and Safety Program

PortsToronto has developed a comprehensive series of corporate Health and Safety Policies, along with Standard Operating Procedures (SOPs) that provide a thorough guide to compliance with all required regulations. Policies and procedures are made available to every employee through Business Unit management and are reviewed on a regular basis to ensure continuous improvement.

## Incidents

PortsToronto continually tracks all known or foreseeable hazards, associated risks and Corrective Action Plans (CAPs). Employee concerns, near-miss incidents, the number and nature of workplace injuries and total lost days are also monitored.

METRIC	2020
Fines for instances of health and safety non-compliance (value)	\$0
Injuries resulting in lost time	2
Total Lost Days	3
Injuries resulting in no lost time	0

### DID YOU KNOW?

Decent work means opportunities for everyone to get work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration.<sup>22</sup>

### HAZARD PREVENTION PROGRAM

As part of our Hazard Prevention Program, Billy Bishop Airport maintains a Hazard and Risk Registry by conducting Hazard Identification and Risk Assessments. Our goal is to identify all hazards in our workplace and to minimize their risks based on the current best practices of Occupational Health and Safety.

22. UNSDG 8: [Decent Work and Economic Growth](#)



I.

# Health and Safety

## Training and Development

With prevention as a key component of reducing workplace injuries and creating a healthy and safe workplace, PortsToronto has implemented several health and wellness training programs.

Health and safety education is part of every new-hire employee’s orientation, and all staff are trained in and have access to PortsToronto’s Health and Safety Policies and Procedures, which cover a wide variety of topics and constitute the Health and Safety Program of the organization. In addition, each position within PortsToronto has been evaluated for its training needs based on regulatory requirements and a thorough hazard and risk analysis.

In 2020, PortsToronto continued offering an extensive three-day training course designed for managers, supervisors and members of the Safety Committee to ensure compliance with federal legislation and provide the necessary tools to promote health and safety within the organization. PortsToronto started offering to all employees at the Marine Terminal a comprehensive 8-hour refresher training course on all Policies and SOPs of the organization, the Labour Code Part II and the parts of the Regulations pertinent to tasks performed in each business unit.

### ADHERING TO TRANSPORT CANADA REGULATORY REQUIREMENTS AT BILLY BISHOP AIRPORT

At Billy Bishop Airport, all employees are trained in accordance with Transport Canada regulations. Employees are required to attend courses on Safety Management Systems (SMS) and Human and Organizational Factors, which provide instruction on proactive safety management. Billy Bishop Airport management also holds monthly SMS Committee meetings to discuss issues related to safety and develop corrective and preventive action plans to remedy any issues.

Over and above this training, employees who work airside, servicing Billy Bishop Airport’s runways and airfield, are provided with specialized equipment and vehicle operation training, which they are required to update each year. Each member of the airport’s ferry crew also holds Transport Canada licenses for the functions they perform. These licenses are renewed on a regular basis to ensure the crew’s training and knowledge remains effective and current.

In addition, the Billy Bishop Airport Fire Department completes regular internal and external emergency services training throughout the year, including a full-scale and tabletop safety simulation or security exercise every year, exceeding the airport’s Transport Canada regulatory requirement. These exercises test the airport’s protocols, procedures, communications and planning for emergency and security-related incidents, and ensure that the airport is ready to respond to any situation. They are critical to ensuring that the airport maintains a high level of emergency response preparedness and involve multiple agencies including Toronto Fire, Toronto Police Service (and related Marine Units), Toronto Paramedic Services, NAV CANADA, as well as staff and officials from the various agencies, airport stakeholders and airlines that operate out of Billy Bishop Airport.







I.

# Health and Safety

## Billy Bishop Airport Emergency Exercise

Conducting an emergency exercise allows Billy Bishop Airport to test its Emergency Response Plan (ERP), work with internal and external stakeholders, and identify areas of strength and areas to improve within our current plan.

Emergency planning and incident management are top priorities for Billy Bishop Airport and our community. While Transport Canada issued exemptions in 2020 due to the pandemic, Billy Bishop Airport executed a live exercise plan in October 2020 that respected a stringent COVID-19 safety protocol, incorporated virtual platforms and video conferencing, and combined regulatory requirements including:

- Airport Rescue and Fire Fighting (ARFF) Recertification
- Security Tabletop Exercise
- Full-scale Security Exercise

“The operator of an airport shall conduct full-scale exercises based on scenarios that relate to a major aircraft accident and, at a minimum, the exercises shall include the assembly and deployment of fire-fighting, policing and medical services organizations.”

### COVID 19 SAFETY PROTOCOL

The health and safety of participants was a key component in the planning of this exercise. The COVID-19 safety protocol in place during this exercise included:

- Mandatory face covering;
- Physical distancing;
- Temperature screening;
- Contact tracing; and,
- The use of mannequins rather than live actors.

*Billy Bishop Airport Firefighter Sean Armstrong speaks with Breakfast Television’s Nicole Servinis about the specialized equipment being employed in ice and cold-water rescue training.*



DID YOU  
KNOW?

The primary purpose of conducting a large-scale exercise is to meet the requirements of the Canadian Aviation Regulations 302.208 (3), which states:

*“The operator of an airport shall conduct full-scale exercises based on scenarios that relate to a major aircraft accident and, at a minimum, the exercises shall include the assembly and deployment of fire-fighting, policing and medical services organizations.”*



# I.

## Health and Safety

### ANNUAL ICE AND COLD WATER RESCUE TRAINING

In February 2020, the Billy Bishop Toronto City Airport Fire Department held its annual ice and cold-water rescue training at the Toronto Island Park. Ice and cold water rescue is performed by emergency services when a person is trapped on the ice, has fallen through the ice, or is immersed in cold water. By using specialized equipment and techniques, emergency responders can execute rescues on ice in a quick and safe manner.

*“Ice and cold water training is just one of the many certifications that we undertake annually at the Billy Bishop Airport fire department. As ice rescue operations are fairly rare, these practice scenarios allow us to refresh our skills in executing rescues on ice and ensure that we are up-to-date on the latest techniques.”*

– Toby Helkaa, Firefighter, Billy Bishop Airport

### DID YOU KNOW?

To protect emergency responders in the icy water, dry suits, neoprene gloves and headwear are worn to insulate against the cold. During the emergency simulations, the teams trained with specialized equipment including Marsars boards, which act as floating stretchers, rescue rings, throw bags that contain rope, personal floatation devices, anchor ropes, reach poles and a loud speaker.





# I. Health and Safety

## CERTIFICATION

Billy Bishop Airport staff complete special Safety Management Systems (SMS), Human Factors and Airside Operators Vehicle Permit training as per Transport Canada requirements. Human error contributes to over 80 per cent of aviation incidents and these training programs prepare our airside staff to mitigate, identify and resolve potential safety issues.

PortsToronto's Health and Safety Manager holds a Canadian Registered Safety Professional (CRSP) designation. This national designation recognizes an individual's in-depth knowledge of health and safety principles and acknowledges the individual's use of this knowledge to develop systems in the workplace in order to achieve optimum control over hazards detrimental to people, equipment, material and the environment.

## WELLNESS COMMITTEE

### Wellness Program Mission *Empowering employees through education and resources, to live their best lives.*

The PortsToronto Wellness Committee was formed in 2017 and meets regularly to share ideas and identify strategies to promote health and wellness in the workplace. The committee engaged global human resources consulting firm Morneau Shepell to assist with the development of a Wellness Program for all PortsToronto employees. The Wellness Program issues newsletters with information promoting both physical and mental health in the workplace and at home.

Following the temporary closure of PortsToronto's Head Office, the Wellness Committee shifted focus to provide mental health support and health and safety tips for employees now working from home.

## DID YOU KNOW?

PortsToronto follows Canadian Standards Association guidelines as industry best practice. Further, airport ferry captains and Works department employees require special licensing to operate vehicles and equipment.

In 2020, PortsToronto welcomed Henry, a co-op student from Centennial College for a four-month work placement in workplace wellness. During this time, Henry took on a number of in-person health and wellness activities catered to PortsToronto operations and designed to benefit our staff, including delivering a Lunch-and-Learn session on mindful eating and providing wellness education presentations at several department meetings.

In 2020, the Wellness Committee sent out four issues of a newsletter with customized messaging, covering the following topics: mindful eating, adapting to social distancing, self-care and sleep. The committee also issued weekly mental health communications (April-June) to provide employees with self-care ideas during the initial phases of the COVID-19 pandemic.





## II.

# Supporting Local Job Creation

DECENT WORK AND  
ECONOMIC GROWTH



As key international transportation hubs, Billy Bishop Airport and the Port of Toronto serve as economic engines that contribute to their local market profitability and support job creation in the communities they serve. Efficiently moving both cargo and people, these transportation networks create links between communities and regions that foster economic growth across multiple industries.

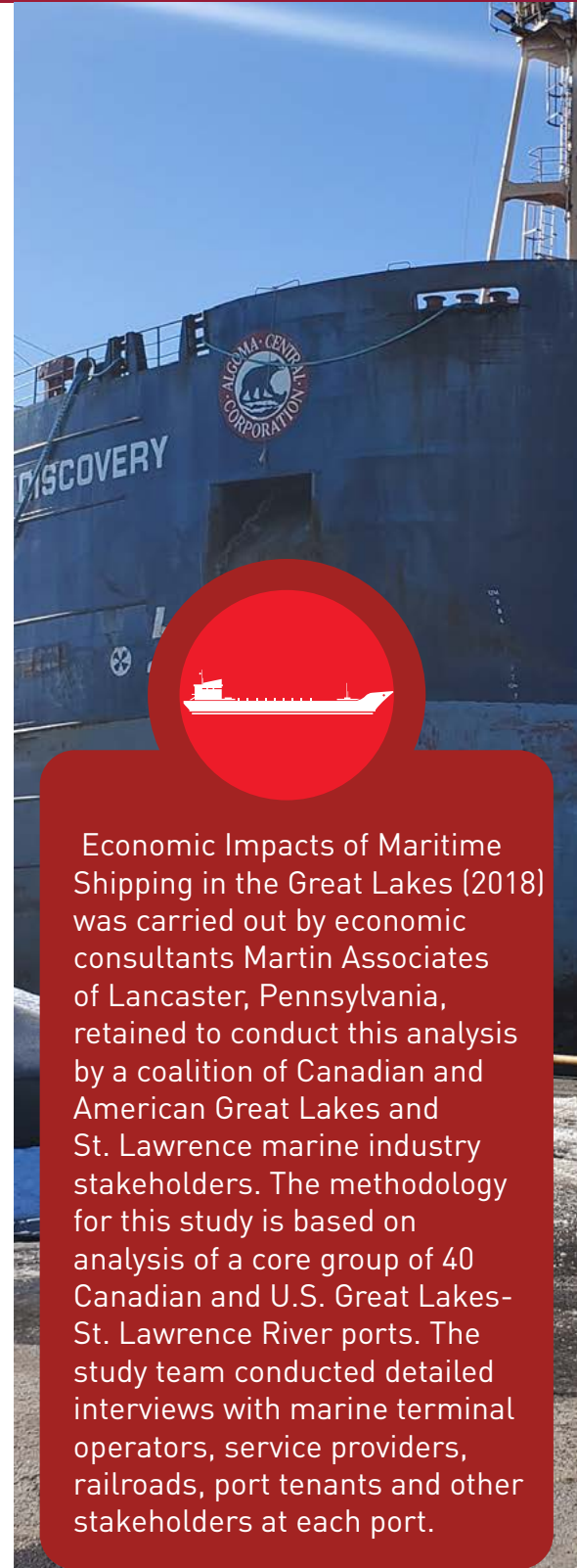
### JOB CREATION

The Port of Toronto continues to be a vital connection to the world, not only boosting tourism and trade, but also providing sustainable employment for terminal workers and other jobs related directly to the shipping industry. Marine cargo arriving and managed at the Port of Toronto generated \$377.7 million in economic activity and 1,566 jobs in Ontario in 2017.<sup>23</sup> Additionally, the Port of Toronto supports indirect job creation by providing businesses with a convenient, environmentally responsible and cost-effective way to get goods and people into the heart of downtown Toronto. Marine cargo and vessel activity from the Port of Toronto's marine terminals created 482 direct jobs and generated \$24.5 million in wages and salaries in 2017.<sup>24</sup>

PortsToronto also contributes to the success of Toronto's \$2-billion film industry by providing filming locations. In 2020, despite the COVID-19 pandemic's effect on production schedules, PortsToronto supported four productions, including *Private Eyes* and *American Gods*. This is in addition to the films and digital content that is produced from Cinespace production studios that occupy the PortsToronto-owned Marine Terminal 51 and portions of the Cruise Ship Terminal. This production activity contributes to Toronto's film industry, which in 2019 contributed \$2.2 billion to Toronto's economy and 30,000 jobs.

<sup>23</sup> *Economic Impacts of Maritime Shipping in the Great Lakes (2018)* was carried out by economic consultants Martin Associates of Lancaster, Pennsylvania, retained to conduct this analysis by a coalition of Canadian and American Great Lakes and St. Lawrence marine industry stakeholders. The methodology for this study is based on analysis of a core group of 40 Canadian and U.S. Great Lakes-St. Lawrence River ports. The study team conducted detailed interviews with marine terminal operators, service providers, railroads, port tenants and other stakeholders at each port.

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## II.

# Supporting Local Job Creation

DECENT WORK AND ECONOMIC GROWTH



### ECONOMIC IMPACT OF AIRPORTS

Billy Bishop Airport is an important international gateway and a key driver of Toronto's economy, generating –prior to the pandemic – more than \$470 million in Gross Domestic Product (GDP) and supporting 4,740 jobs, including 2,080 directly associated with airport operations.

### THE SOUTHERN ONTARIO AIRPORT NETWORK

The Southern Ontario Airport Network (SOAN) was formed by 11 commercially significant regional airports to meet the challenges of increasing travel demand. SOAN looks to address the demand for air travel by identifying opportunities to have airports specialize and work together to free up capacity. SOAN's goal is to enable the region's airports to accommodate all the air service needs of the region, and continue to be drivers of local and regional economic opportunities.



Prior to the pandemic, Billy Bishop Airport generated more than \$470 million in Gross Domestic Product (GDP) 4,740 jobs, including 2,080 directly associated with airport operations.



Prior to the pandemic – more than \$470 million in Gross Domestic Product (GDP)







## II.

# Supporting Local Job Creation

### CINESPACE

Cinespace's Toronto studio facilities, which occupy PortsToronto's Marine Terminal 51 and portions of the Cruise Ship Terminal, are known for housing award-winning productions such as TV series *The Handmaid's Tale*, and Oscar Best Picture winner *The Shape of Water*. Cinespace is a significant employer and contributor to a vibrant film and television industry in Canada.

According to the City of Toronto's plan titled *Spotlight on Toronto: A Strategic Action Plan for the Film, Television and Digital Media Industry*, the sector is a key economic driver for Toronto and continues to experience significant year-over-year growth. Home to a diverse array of filming locations and a widely respected pool of on- and off-screen talent, Toronto has many of the key market fundamentals needed to thrive as one of the leading global centres for film, television and digital media.

The screen-based industries have grown to become one of Toronto's key economic drivers, contributing a record-breaking investment of over \$2.2 billion to the city's economy in 2019, with an estimated 30,000 jobs supporting 1,500 screen projects and 7,600 days of production.<sup>25</sup>

### DID YOU KNOW?

Toronto is one of the top five screen-based industries in North America with a full scope of industry connections, services, suppliers, talent, crew, facilities and locations delivering everything required for success in pre-production through postproduction.<sup>26</sup>



Cinespace partnered with Netflix in 2019 to establish a Production Hub in PortsToronto's Marine Terminal facility that has brought thousands of new jobs to the Toronto area and surrounding region.





### III.

## Contributing to Toronto's Economic Growth

The unique downtown locations of Billy Bishop Toronto City Airport and the Port of Toronto make them key urban transportation hubs for Canadian and international businesses to gain convenient, cost-effective and environmentally sustainable access to the heart of Canada's business capital.

### FACILITATOR OF TOURISM AND TRADE

Since its opening in 1939, Billy Bishop Airport has become an important international gateway and significant economic engine for the GTA. The airport plays an important role in Toronto's billion-dollar tourism industry, with visitors coming through Billy Bishop Airport spending approximately \$150 million a year on accommodation, transportation, retail and food and beverage.

Tourism is one of the economic sectors most affected by the COVID-19 pandemic due to the closure of borders, travel bans and lockdown measures to stop the spread of the virus. As a direct result of these measures, resident airlines Porter Airlines and Air Canada temporarily suspended commercial service at Billy Bishop Airport in March 2020, leading to a dramatic reduction in passenger numbers this year.

When the time is right to travel again, the airport will continue to support Toronto's key sectors including the financial services, life sciences, the food and beverage sector, travel and tourism, and the film and television industry through direct and indirect economic benefits.

In recent years, the technology industry in Toronto has shown tremendous growth, outpacing other North American technology hubs such as San Francisco, Seattle and Washington, D.C. to become the third-largest tech sector in North America, and home to over 18,000 tech companies, with over 400,000 people working in the local tech industry.<sup>27</sup>

It is encouraging that global brands and technology giants such as Amazon and Uber choose the Greater Toronto Area to base their operations. When international borders re-open and travel resumes, Billy Bishop Airport will play a more vital role than ever before in connecting businesses in Toronto to key technology markets in the U.S. such as New York and Boston.

Further, with regional carriers such as FlyGTA now serving markets such as Kitchener-Waterloo and Kingston, the technology corridor is growing ever stronger as fast, efficient and daily connections can be made between technology hubs.

### DID YOU KNOW?

Expert talent, high-speed communications and industry-leading research and development have made Toronto a global hub for IT and new media development. Employing over 90,000 people, Toronto's technology sector contributes more than \$8 billion in annual employee wages.<sup>28</sup>



27. Collision  
28. City of Toronto website



### III.

## Contributing to Toronto's Economic Growth

### The Port of Toronto as the City's Marine Gateway to the World

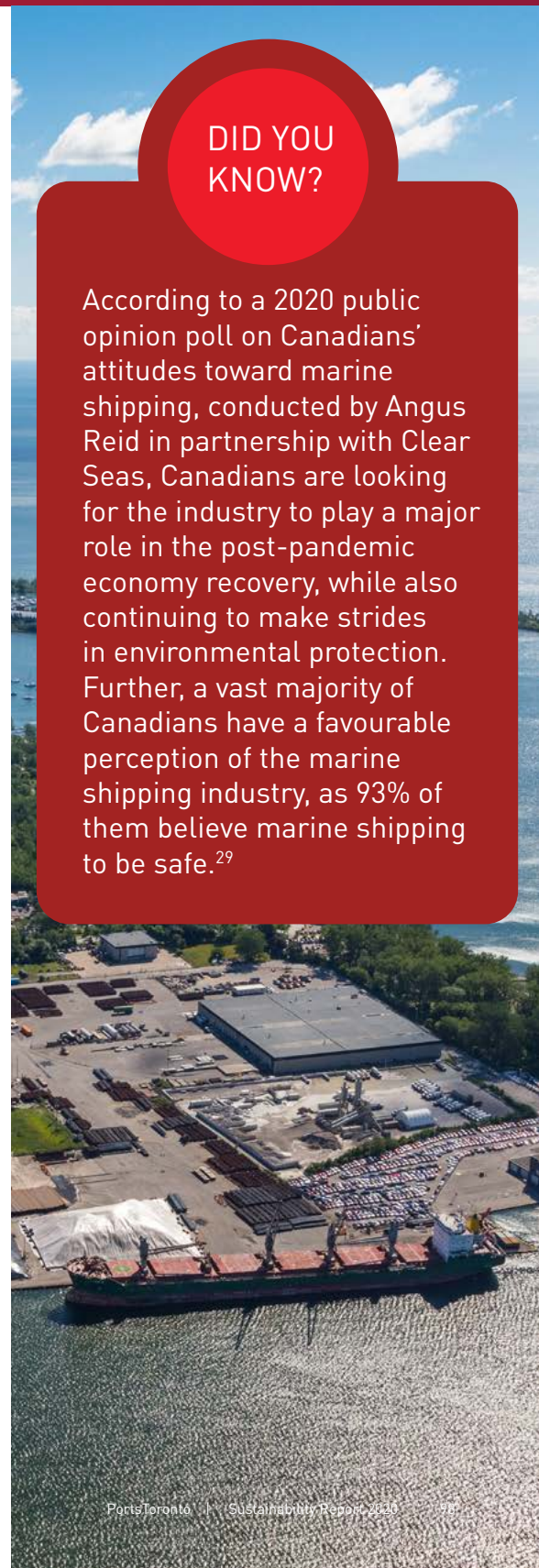
Since 1793, the Port of Toronto has served as Toronto's gateway to marine ports around the world. Now serving primarily as a bulk cargo facility, the port's unique location minutes from Toronto's downtown enables goods from countries as far away as Germany, South Korea, Brazil, China and the United States to easily flow in and out of the city.

In 2020, approximately 2.2 million metric tonnes of cargo from around the world were delivered directly into the heart of the city through the Port of Toronto, confirming the port's position as a vital component of Toronto's economic performance. The port's staging facilities and warehouses, located minutes away from downtown Toronto, mean fewer vehicles on the road. In 2020, cargo transported through the port via ships diverted 52,000 40-tonne trucks from Toronto's congested roads. Additionally, ships laying up in the Port of Toronto over the winter are provided with shore power to allow them to turn off their diesel generators to further reduce emissions.

Beyond the traditional marine cargo, the port can also generate revenue for Toronto's travel and tourism sectors. Though the global COVID-19 pandemic has had an impact at the port, with federal regulations effectively cancelling the 2020 cruise ship season, the year 2019 marked the Port of Toronto's busiest yet as the number of cruise ships visiting Toronto more than doubled year over year, with 36 ships bringing approximately 12,500 visitors to Toronto. These passengers would typically spend several days in Toronto hotels, exploring attractions and enjoying the city's many attractions.

#### DID YOU KNOW?

According to a 2020 public opinion poll on Canadians' attitudes toward marine shipping, conducted by Angus Reid in partnership with Clear Seas, Canadians are looking for the industry to play a major role in the post-pandemic economy recovery, while also continuing to make strides in environmental protection. Further, a vast majority of Canadians have a favourable perception of the marine shipping industry, as 93% of them believe marine shipping to be safe.<sup>29</sup>



29. Clear Seas/Angus Reid public opinion poll.



### III.

## Contributing to Toronto's Economic Growth

DECENT WORK AND ECONOMIC GROWTH



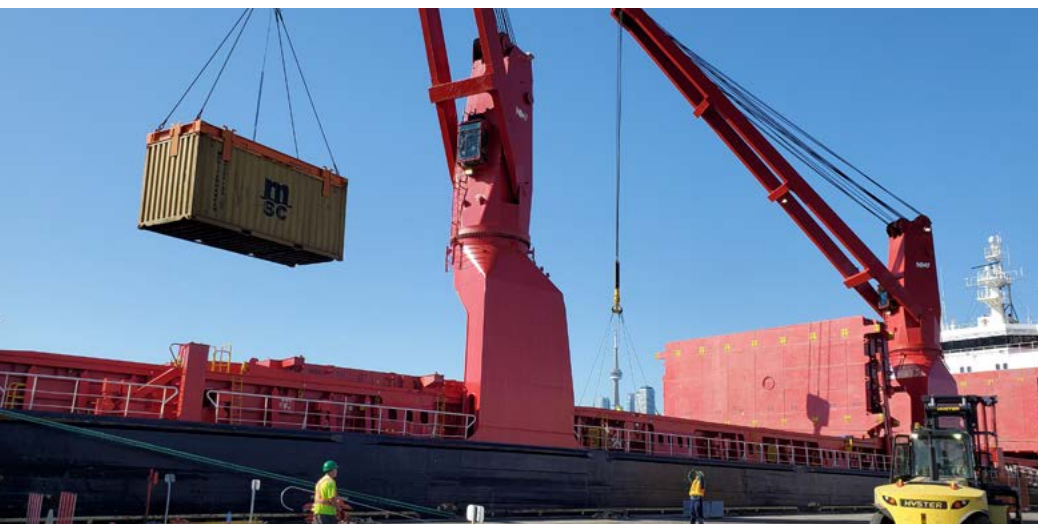
### *MV CLAUDE A. DESGAGNES*

In October 2020, the Port of Toronto was pleased to welcome the *MV Claude A. Desgagnes*. The vessel, which had departed the Port of Montreal earlier in the week, delivered 375 containers carrying much of the food, construction materials and other resources that the Greater Toronto Area needed to keep it moving during challenging times. This important delivery built on the port's many successes in recent years, including a record year in 2019 during which the Port of Toronto saw its highest recorded bulk cargo levels in 15 years, and demonstrated its readiness to receive container shipments in future in order to continue to support our region's supply chain.



DID YOU KNOW?

According to the International Energy Agency, industrial ports and domestic shipping fleets are among the most effective places to achieve economy-wide reductions in greenhouse gas emissions. The shipping industry, ferry operators and port authorities have an important role to play in Canada's plans for a net-zero economy by 2050.<sup>30</sup>



30. Toronto Star: Maritime industry can help us reach net-zero economy by 2050





# Part 7: Going Forward



## I. Next Steps

In this report, we once again put our organization through its paces — highlighting areas where we are succeeding while also reflecting on how we can continue to improve in order to maximize the impact of our sustainability efforts. In 2021 and beyond, PortsToronto will continue to enhance our sustainability strategy and reporting and strive to achieve a rigorous carbon reduction by 2030. Further, in an effort to engage with our government and community stakeholders, we will continue to provide ongoing transparent reporting on our business in the areas of environmental stewardship, community, people, health and wellness and economic performance.

