

Backgrounder: Port Lands Flood Protection

The Port Lands: History and Context



Looking southeast from downtown Toronto towards the Port Lands.

The Port Lands, bounded by the Keating Channel/Don River and Lake Shore Boulevard in the north, the Toronto Inner Harbour in the west, Ashbridges Bay in the east and Lake Ontario and Tommy Thompson Park in the south, was created by decades of infilling what was once one of the largest wetlands on Lake Ontario. Beginning in the late 1800s, the area was gradually filled in to make more land available for industry and shipping. As the natural mouth of the Don River was filled in, the Keating Channel was created to provide an outlet for the Don River watershed into Lake Ontario and a means to convey storm water.

Today, the Port Lands area sits within a designated floodplain, which is an area anticipated to experience flooding in the event of a regional storm or the 100-year flood – whichever is greater. Providing flood protection for the Port Lands was identified as a top priority by all three orders of government when they first established Waterfront Toronto in 2001.

In the last decade, governments across the country have had to contend with weather events that are occurring with more frequency and severity. In particular, floods are happening more often in urban areas and the financial risk to governments to pay for the damages is also increasing.

About Port Lands Flood Protection



Area shown in blue is currently at risk of flooding from the Don River during a Regulatory Storm, defined as the greater of 100-year storm or 1954's Hurricane Hazel.

Currently, about 290 hectares (715 acres) of southeastern downtown Toronto, including parts of the Port Lands, South Riverdale, Leslieville, south of Eastern Avenue and the East Harbour development site, are at risk of flooding from the Don River watershed and cannot be revitalized until they are flood protected. Port Lands Flood Protection is a comprehensive solution to flood protection that also addresses the fundamental challenge of transforming the underused and post-industrial Port Lands into a long-term asset that will support Toronto's growth and economic competitiveness.

The project will create a new mouth for the Don River in the middle of the Port Lands between the Ship Channel and the Keating Channel, as well as the foundations of a new urban island neighbourhood called Villiers Island, and more waterfront access for everyone. It will also create new natural habitats and re-establish wetlands in the area, which provide social and environmental benefits and naturally moderate the effects of flooding and erosion. Naturalizing the mouth of the Don River will provide the necessary flood protection and unlock the development potential of this premier waterfront area.

Project Breakdown



Left: An aerial view of the Port Lands before the start of construction. Right: Future vision of the Port Lands once Port Lands Flood Protection is complete. Villiers Island will emerge as a connected and complete community with parks and opens spaces along the Don River, the Keating Channel and Lake Ontario.

The project's separate components can be divided among four broad categories:

Flood Protection

This includes:

- Excavating the river valley and remediating contaminated soil
- Creating the new grading around the river's banks
- Creating the wetlands and Don Greenway
- Structures and features that allow for better conveyance and control of storm waters

Bridges

This includes:

- New Cherry Street North Bridge will replace the existing bridge over the Keating Channel and accommodate the future extension of transit into the Port Lands
- Cherry Street South Bridge will span the new river valley north of the Ship Channel
- Commissioners Street Bridge will span the new river valley west of Don Roadway
- Existing Lake Shore Bridge will be lengthened to accommodate widening of the Don River

Roads and other municipal infrastructure

This includes:

- Stormwater and wastewater systems
- Realigning a section of Cherry Street
- Rebuilding a section of Commissioners Street
- Rebuilding a section of the Don Roadway

Parks

Includes:

- Parks along the new river valley
- Park along the edge of Toronto Harbour
- Pedestrian and bike trails and paths, and waterfront access through new naturalized areas

Find a project breakdown with details about each component at <https://portlandsto.ca/project-map/>

Project Timeline:

The project has been informed by extensive engagement and consultation with the public, government agencies, stakeholders, landowners and developers, and is consistent with the City of Toronto's primary waterfront planning document, the Central Waterfront Secondary Plan. Waterfront Toronto has worked closely with Indigenous communities throughout the process of studies, envisioning the waterfront design and early construction. Waterfront Toronto will continue to engage and consult as the vision for Toronto's waterfront materializes.

In October 2016, Waterfront Toronto completed a Due Diligence Report, which was aimed at providing more information on the project to inform government decision-making on funding. The report provides great certainty on the costs, risks, scheduling and implementation strategy associated with the project. This report is available on the project website: <https://goo.gl/HjWv9>

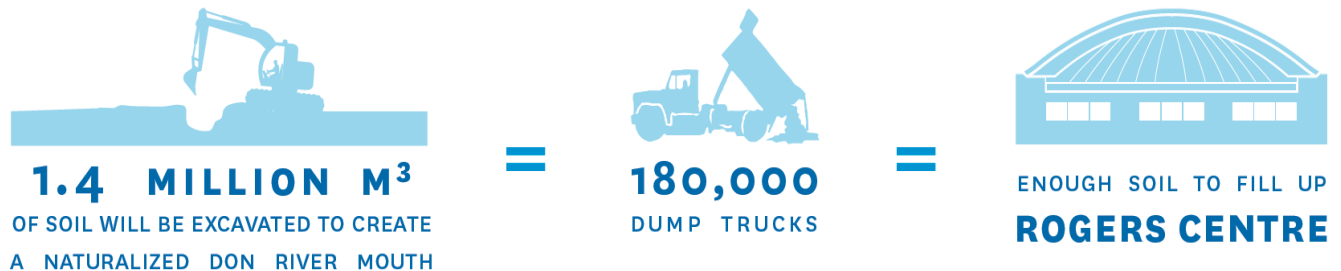
In June 2017, \$1.25 billion in shared funding was announced by the governments of Canada, Ontario and Toronto to deliver the full Port Lands Flood Protection project.

In December 2017, construction began on the Cherry Street Lakefilling project, part of the larger Port Lands Flood Protection project. This early start was thanks to \$65-million in tri-government funding through the Clean Water and Wastewater Fund.

Construction began on the full Port Lands Flood Protection project in July 2018. Work to date includes clearing sites to prepare for excavation of the river valley, preparing an area for the first of two soil treatment facilities and clearing some existing buildings. We will begin digging the river valley this winter. The project is forecasted to be complete by 2024.

Find more details about our construction timeline <https://portlandsto.ca/multimedia/port-lands-flood-protection-construction-schedule/>.

Construction Facts



Port Lands Flood Protection will become one of the most intensive earth moving projects in recent history, requiring the excavation, moving and placement of more than one million cubic metres of soil and fill – enough to fill the Rogers Centre. A large portion of the soil excavated will get remediated (washed/cleaned and reused) and used to raise the grade in most of the project area by an average of two metres. These changes to the area’s topography are part of our design to protect 240 hectares of land from flooding.

195,600 cubic metres of clean fill will form the northwest corner of the future Villiers Island. This material is coming from The Well, a residential construction site in downtown Toronto.

182,711 metric tons of locally sourced aggregates have been brought in by boat and truck to form the new shoreline as part of the Cherry Street Lakefilling project.

More than 1.2 million seeds will be planted to create the lush, varied habitats throughout the new river valley.

Project Funding

Funding breakdown:

	Cherry Street Stormwater and Lakefilling Project	Port Lands Flood Protection Project	Total Funding
Government of Canada	\$ 32.5 million	\$ 384.2 million	\$ 416.6 million
Province of Ontario	\$ 16.25 million	\$ 400.4 million	\$ 416.6 million
City of Toronto	\$ 16.25 million	\$ 400.4 million	\$ 416.6 million
Total	\$ 65.0 million	\$ 1.185 million	\$ 1.25 billion

What does Flood Protection Deliver?

[Live](#)

Unlocking the Port Lands for revitalization will help address the critical need for family and affordable housing as part of a development of new sustainable communities next to Toronto's downtown core that are connected by transit and cycling networks.

- An estimated 18,000 to 25,000 people will live in the Port Lands, after it is fully developed
- 20 per cent of residential units will be affordable rental housing
- An additional five per cent of residential units will be affordable ownership

A new island community – Villiers Island – will emerge as a result of this project. The aim is to establish Villiers Island as an innovative model for a climate positive community and to demonstrate excellence in sustainable community design. Further, flood protection is vital for the development of the East Harbour commercial development site, which offers significant potential as an employment hub.

[Work](#)

- Employment estimates project 25,000 to 30,000 jobs in the revitalized Port Lands
- Projected employment opportunities in the East Harbour development

[Play](#)

The naturalized river will include:

- 30 hectares of naturalized greenspace
- 11 hectares of parkland

[Economic Impact and Jobs](#)

A 2016 update to the study completed by urbanMetrics estimates that the project's construction phase has the potential to deliver wide economic benefits. Spending on design and construction of the project will generate approximately:

- \$1.1 billion in value to the Canadian economy
- 10,829 person years of employment
- \$373 million in tax revenues to all orders of government

Economic benefits related to future development unlocked by the project (not including the impact of the proposed East Harbour development), including approximately:

- \$4 billion in value added to the Canadian economy
- 41,100 person years of employment
- \$1.5 billion in revenues to the three orders of government

This creative approach to flood protection will improve Toronto's resiliency by creating:

- More than 1,000 metres of new river channel
- 14 hectares of new coastal wetland
- Three hectares of terrestrial habitat to strengthen biodiversity and help clean our water