

Toronto and Region Conservation Authority

Waterfront Projects & Partnerships

Presented by:

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Government & Community Relations, Toronto & Durham Region

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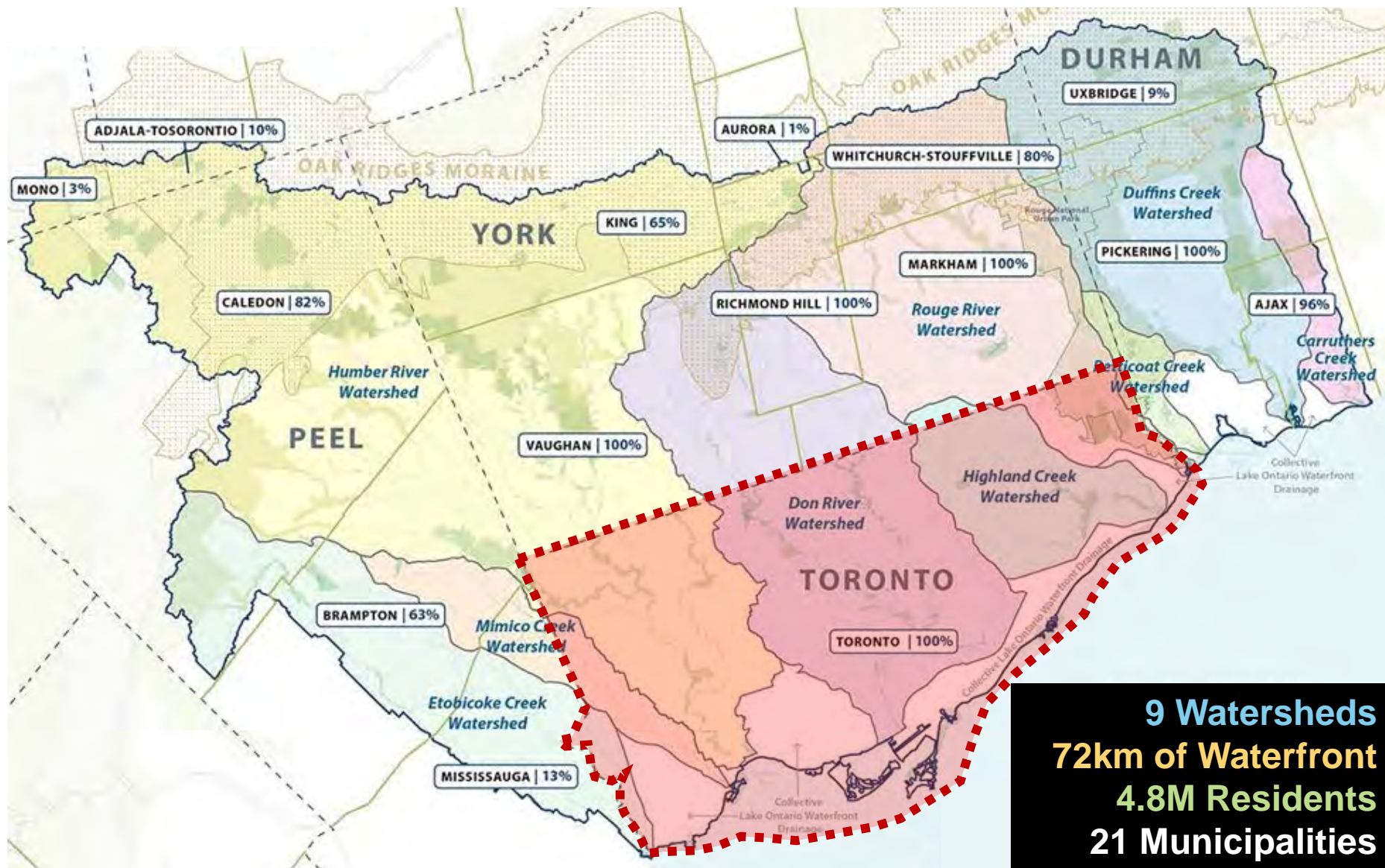
About TRCA

Since 1957, TRCA has been delivering programs and services that enhance the natural environment and protect communities from the impacts of flooding and extreme weather events — Ontario's leading cause of public emergencies.

TRCA uses a data-driven approach to support governments and partners in planning decisions, asset management, infrastructure delivery, and stewardship.



TRCA - Jurisdiction



The Central Waterfront & Wider Waterfront



From Ontario Place to Ashbridges Bay, development is governed by the waterfront revitalization tri-government partnership. TRCA plays an advisory role when input is requested and undertakes work for partners including Waterfront Toronto, Province of Ontario (MECP, MNRF, IO), Federal Government (PT, ECCC and DFO), and the City of Toronto.

TRCA - Role



Shoreline Protection

Mitigate & prevent damage from erosion and flooding



Habitat Restoration

Over 500,000sqm of terrestrial & aquatic habitat restoration implemented



Forecast Distribution

Support municipalities in emergency planning & response



Recreation Opportunities

Collaborate to advance development of public open spaces



Monitoring

30 years of environmental data collection to support planning

Partnerships – Project Types

Delivery of \$77M in infrastructure annually for our partners

Aerial view of a large body of water with a winding shoreline and some land in the foreground.

Flood Protection

: End-to-end delivery of major flood protection land forms

Aerial view of a shoreline with some vegetation and a body of water.

Erosion Control

: Identification and remediation of shoreline and valley land erosion hazards

Aerial view of a green, vegetated area with a body of water in the foreground.

Green Infrastructure

: Design, implementation, and maintenance of natural stormwater controls

Aerial view of a forested area with a path or trail winding through it.

Trails

: Design and development of multi-surface trails

Aerial view of a natural channel or stream flowing through a wooded area.

Natural Channels

: Naturalization of channels to capture, filter, and detain stormwater and improve habitat, water quality, and stormwater runoff issues

Project Planning & Delivery Services

Enabling Works

- *monitoring & permitting*
- *consultation & engagement*
- *assessments & studies*

Project Delivery

- *project management*
- *design & engineering*
- *construction management*
- *restoration*

Unique Team

- *environmentally focused*
- *multi-disciplinary*
- *highly specialized*



Community Relationships

Education

- *In-school programs*
- *Education centres*
- *Adult programs*



Outreach

- *Events*
- *Urban Agriculture*
- *SNAP*



Parks & Lands

- *Conservation parks*
- *Land management*
- *Recreation facilities*

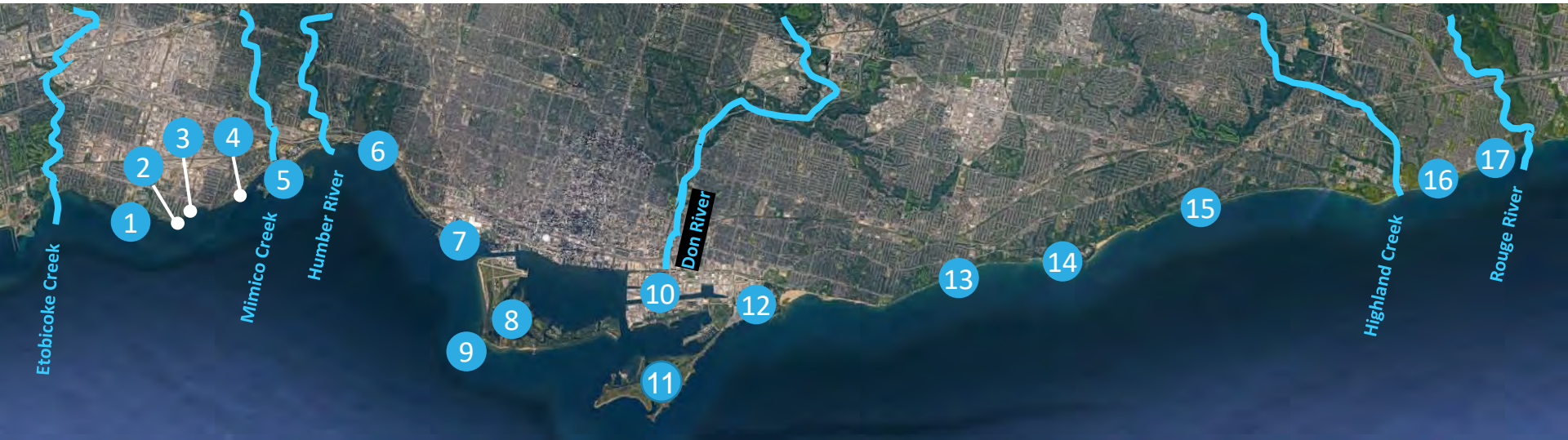


Partnerships & Fee for Service Programs



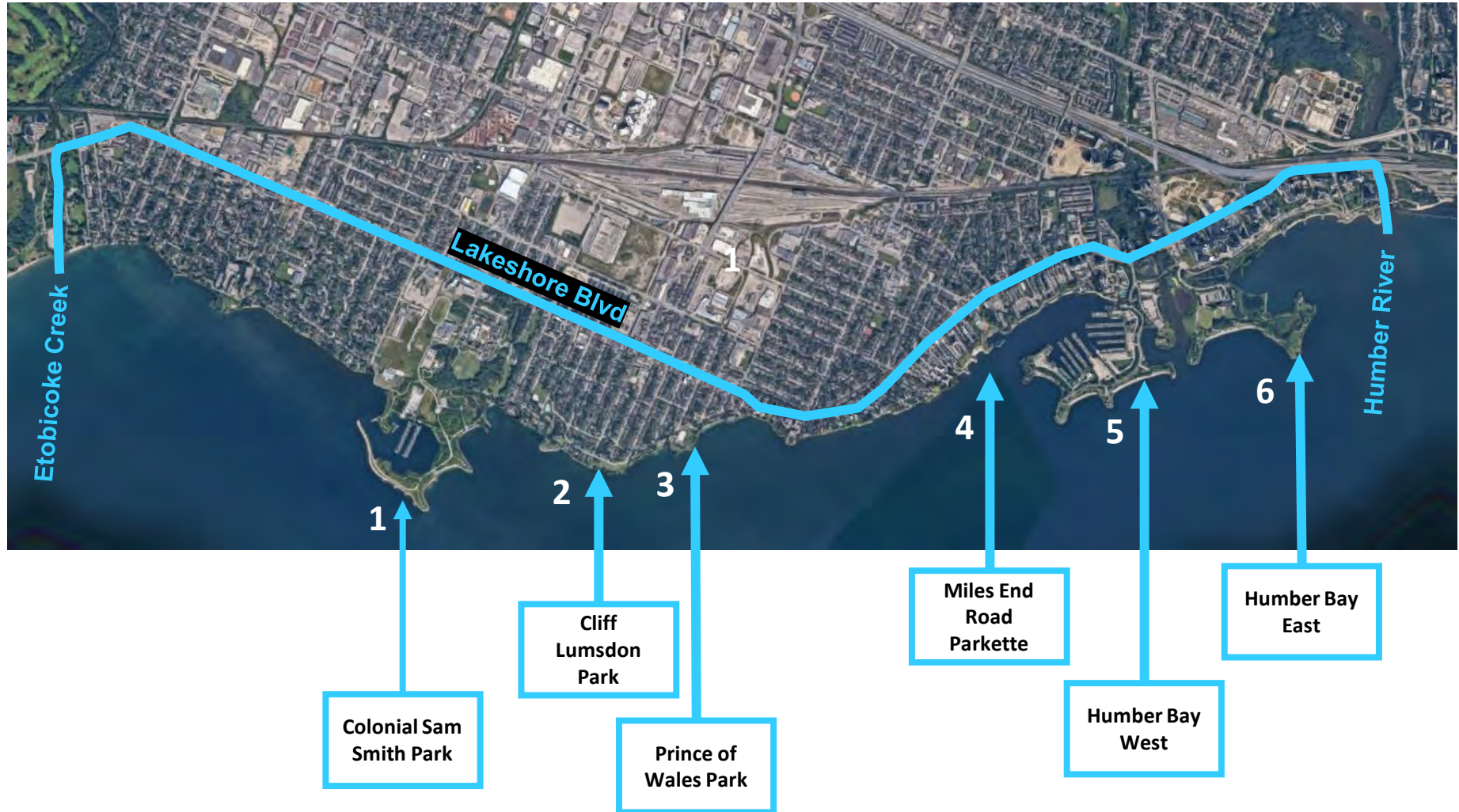
Projects

Waterfront Projects Key Map



- | | | |
|---------------------------------|--------------------------------|--|
| 1 Colonel Sam Smith Park | 7 Ontario Place | 13 Scarborough Bluffs West EA |
| 2 Cliff Lumsdon Park | 8 Toronto Island EA | 14 Bluffers Park |
| 3 Prince of Wales Park | 9 Gibraltar Point | 15 Scarborough Waterfront Project |
| 4 Miles Road End Parkette | 10 Port Lands Flood Protection | 16 Erosion East & West of Highland Creek |
| 5 Humber Bay Park East & West | 11 Tommy Thompson Park | 17 Rouge Beach |
| 6 Western Waterfront Masterplan | 12 Ashbridges Bay Landform | |

Etobicoke Waterfront Key Map



1

Colonel Sam Smith Park Major Maintenance Project

TRCA is performing major maintenance repairs at Colonel Samuel Smith Park to enhance erosion control structures along the shoreline to address hazard concerns.

The Waterfront Team is currently in the planning phase of the project to review baseline information and developed detailed design to repair structures that have been identified as high priority from Erosion Risk Management Program.

- Currently in the design development phase with concept designs developed in Fall 2022
- Phase I – Highest Priority (South) to start late 2023 / early 2024
- Phase II – Lower Priority (East) to Start after Phase 1 (approx. Late 2024 – mid 2025)



2

Cliff Lumsdon Park *Revetment Maintenance Project*

- Existing revetment damaged from erosion
- Detailed design for repair currently underway



3

Prince of Wales Park *Major Maintenance Project*

- TRCA and the City of Toronto are undertaking major maintenance work to existing shoreline erosion control structures at Prince of Wales Park
- Objective is to repair the existing erosion control structures to protect against the hazards of shoreline erosion and reduce the risk to public safety
- Construction has begun and is anticipated to be completed by Fall 2023
- Work will include:
 - Removal of existing shoreline structures
 - Installation of a new armourstone revetment using both new and reusable stone material

November 2022: Site setup complete, reconstruction of the shoreline has commenced (pictured above)

October 2022: TRCA crews mobilized & site setup began (trail closure, perimeter fencing, tree protection zones and erosion and sediment control measures)



3

Prince of Wales Park *Major Maintenance Project*

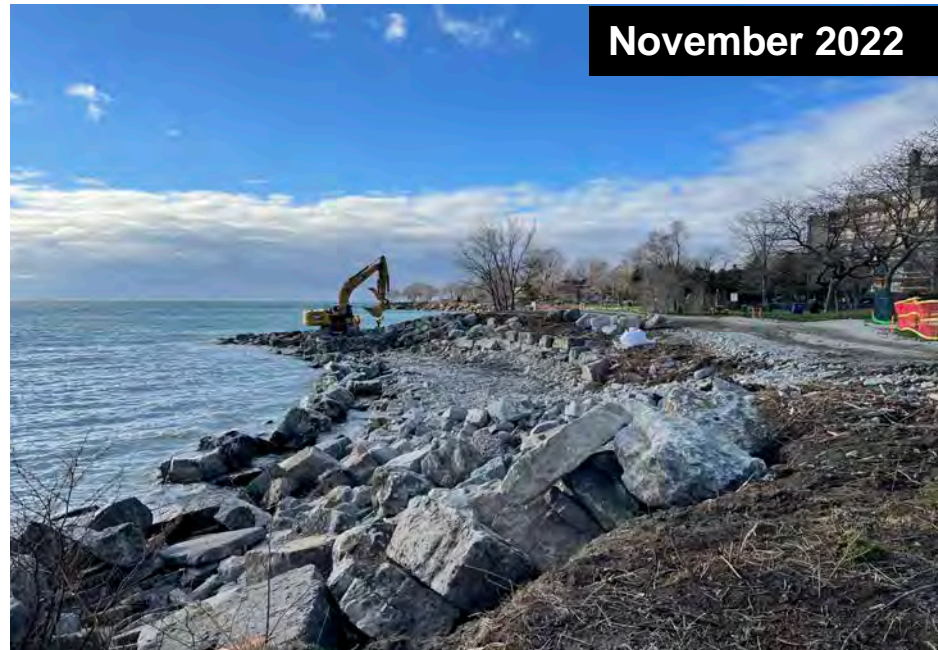
October 2022



Before



November 2022



4

Miles Road End Parkette *Shoreline Erosion Protection Project*

- Project with City of Toronto - Parks Forestry and Recreation
- Long term shoreline protection and informal public access
- Detailed designs complete and permits in process
- Construction targeted for 2023



5

Humber Bay Park East & West Major Maintenance Project

Phase 1 - Eastern Headland

- Completion targeted for Summer 2023

Phase 2 - Western Headland

- Detailed design underway
- Construction start targeted mid-2023
- Park access and coordinated with adjacent Master Plan works being undertaken by the City of Toronto

Phase 3 – Rubble Beach

- Targeted to commence late 2023/early 2024

Humber Bay West

- Background review and conceptual design complete.
- Detailed Design & Permitting in process
- Works tentatively planned to commence in late 2023



6

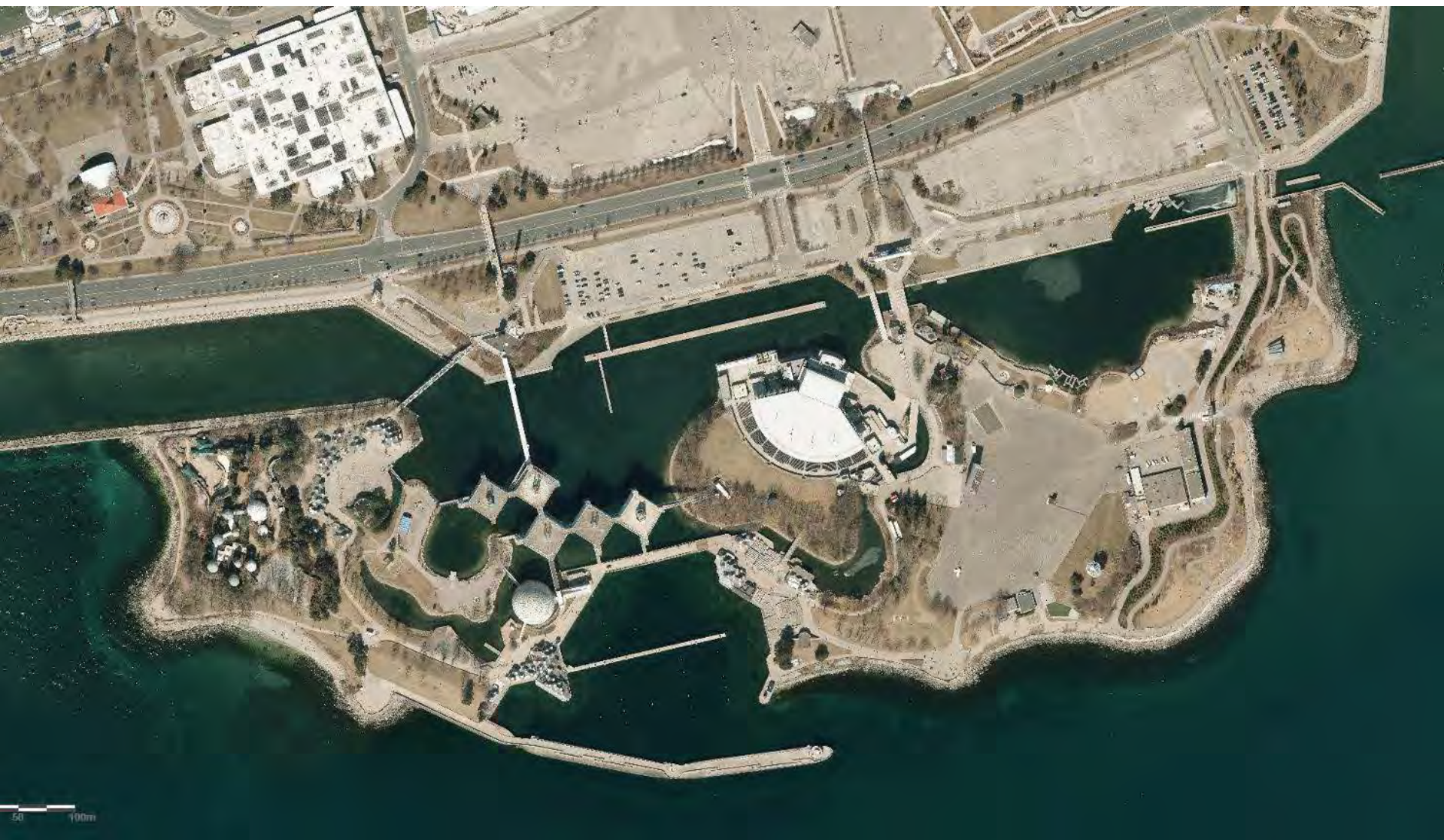
Western Waterfront Masterplan Implementation Update



Central Waterfront Projects Key Map



Ontario Place Existing



7 Ontario Place Redevelopment



Ontario Place Redevelopment EA



This map is an approximate depiction of the land areas and is subject to change.

Image courtesy of Infrastructure Ontario

Toronto Island Flooding 2017 & 2019



Toronto Island Emergency Works 2020



Toronto Island Flood Mitigation Environmental Assessment



Gibraltar Point Erosion Control Project



Gibraltar Point Erosion Control Project

Before



During



During



After



Port Lands Flood Protection Project



WATERFRONToronto

CREATE TO



Toronto and Region
Conservation
Authority

1000 m new river
13 ha new coastal wetland
4 ha terrestrial habitat



Port Lands - Keating Channel Operations

Ports Toronto Dredging Operations



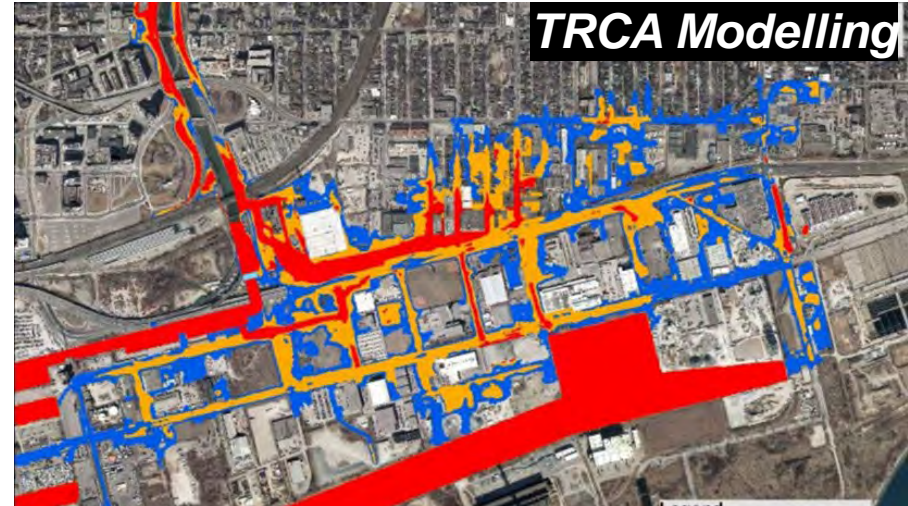
Ports Toronto Debris Collection



TRCA Monitoring



TRCA Modelling



Port Lands - Cherry Street Stormwater & Lake Filling

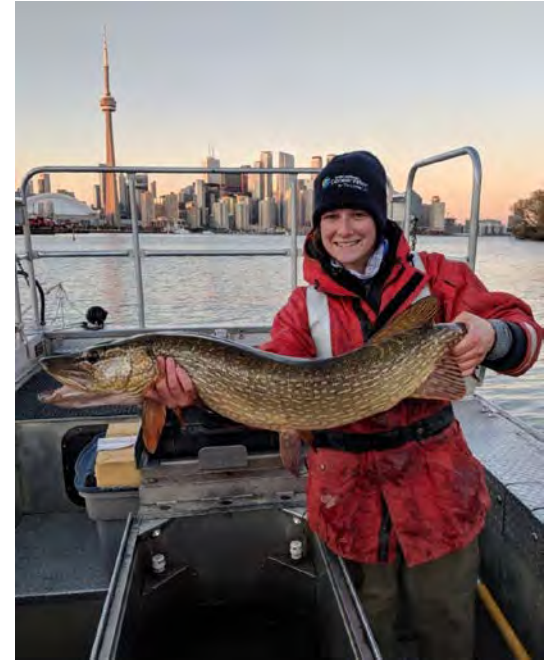


Port Lands - Cherry Street Stormwater & Lake Filling

Before project 94% of fish in Keating Channel 3 species. Now . . .



Toronto Harbour – Fish Populations



Tommy Thompson Park & Leslie Street Spit

2021



Ashbridges Bay
Landform

City of
Toronto

CreateTO

Shipping Channel

Leslie Street Spit
(MNRF - Under Lease
to Ports Toronto)

Tommy
Thompson Park
(TRCA)

Outer
Harbour

Land Component	Size (hectares)	Ownership	Management
Tommy Thompson Park	247	TRCA	TRCA / PFR
Outer Harbour East Headland and Endikement	216	Ministry of Natural Resources and Forestry	PortsToronto
Baselands	37	CreateTO / City	CreateTO / City

Tommy Thompson Park & Leslie Street Spit

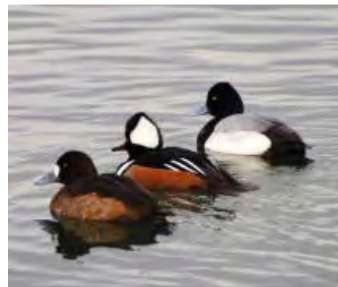
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Tommy Thompson Park & Leslie Street Spit



Cells 1 & 2



Tommy Thompson Park & Leslie Street Spit



2011



2018



2022

Embayment D & Cormorants

1990

6 nests introduced

2018

peak population (14,515 nests)

2022

peak ground nesting (83% of 8,860 total nests)

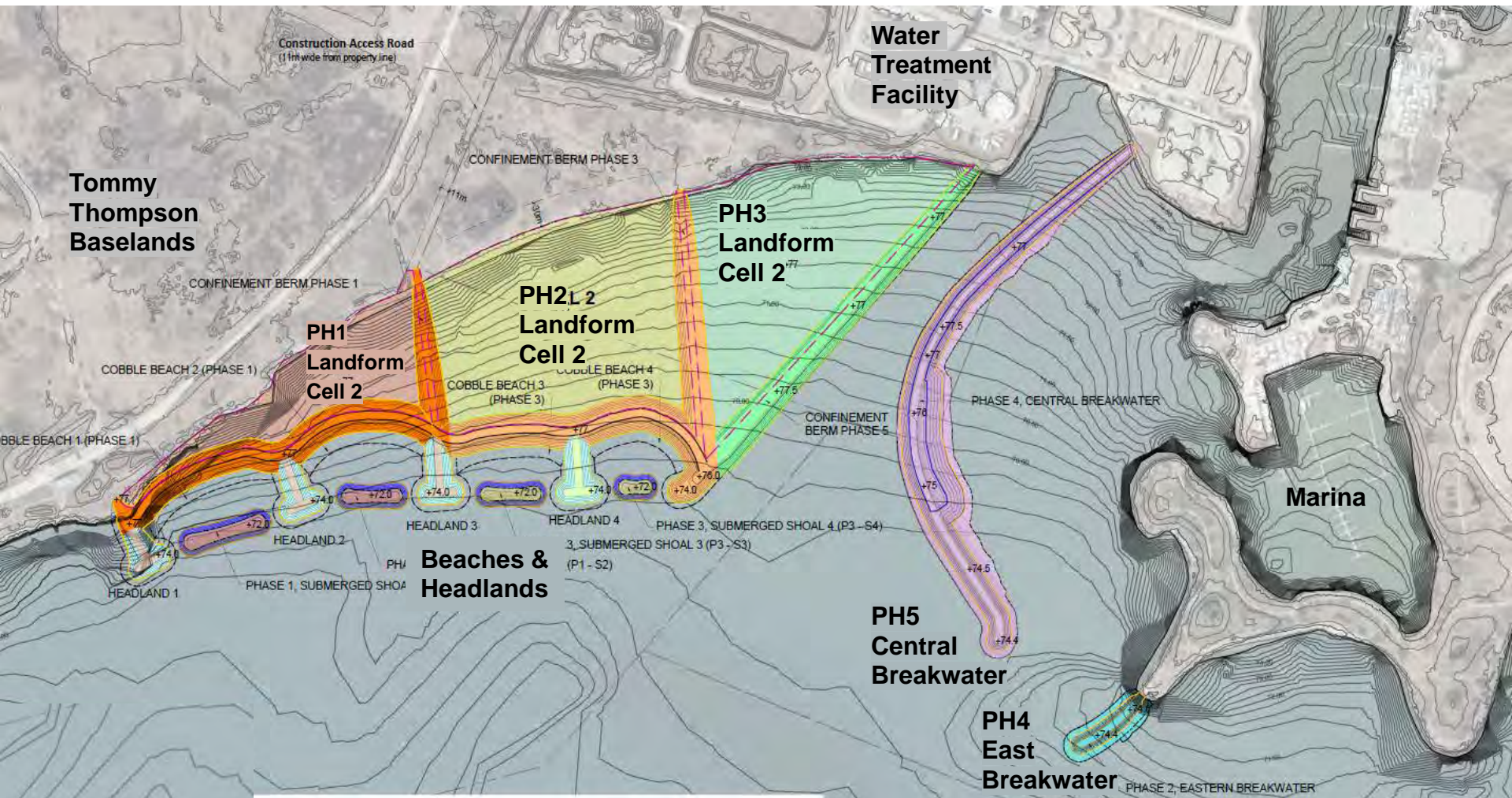


Management of tree nesting cormorants to encourage ground nesting

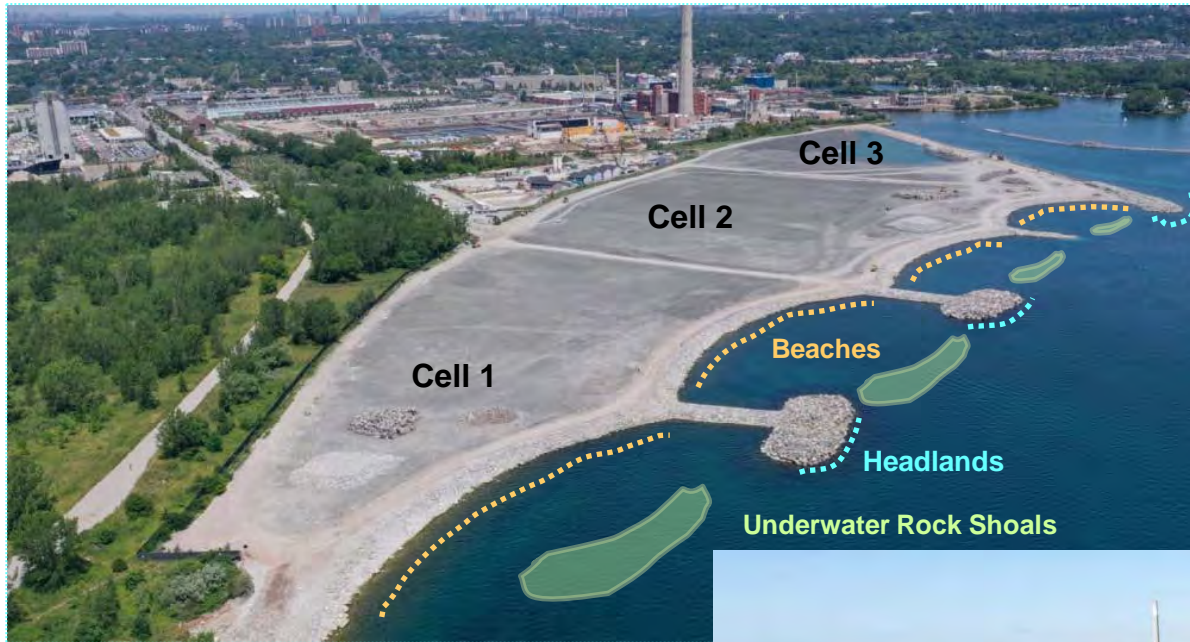
Ashbridges Bay Landform ~ *Construction Progress*



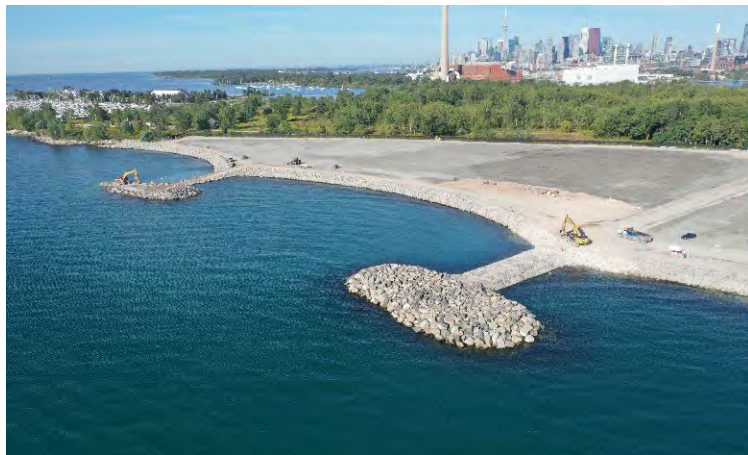
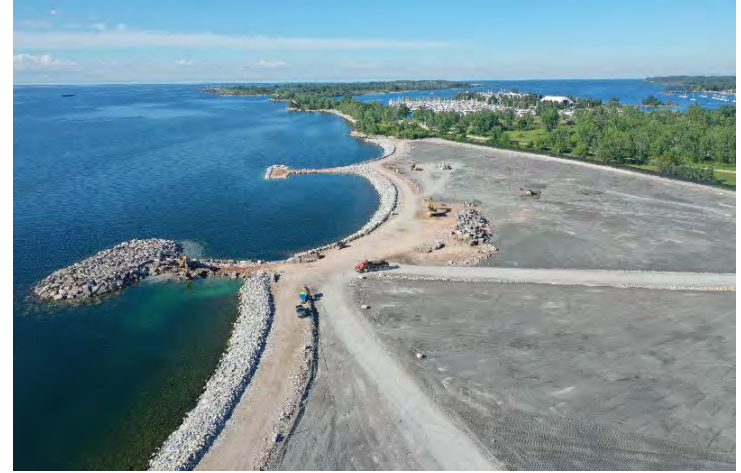
12 Ashbridges Bay Landform ~ *Design & Phasing*



Ashbridges Bay Landform ~ *Construction Progress*



Ashbridges Bay Landform ~ *Construction Progress*



Eastern Waterfront Key Map



13 Scarborough Bluffs West EA

14 Bluffers Park

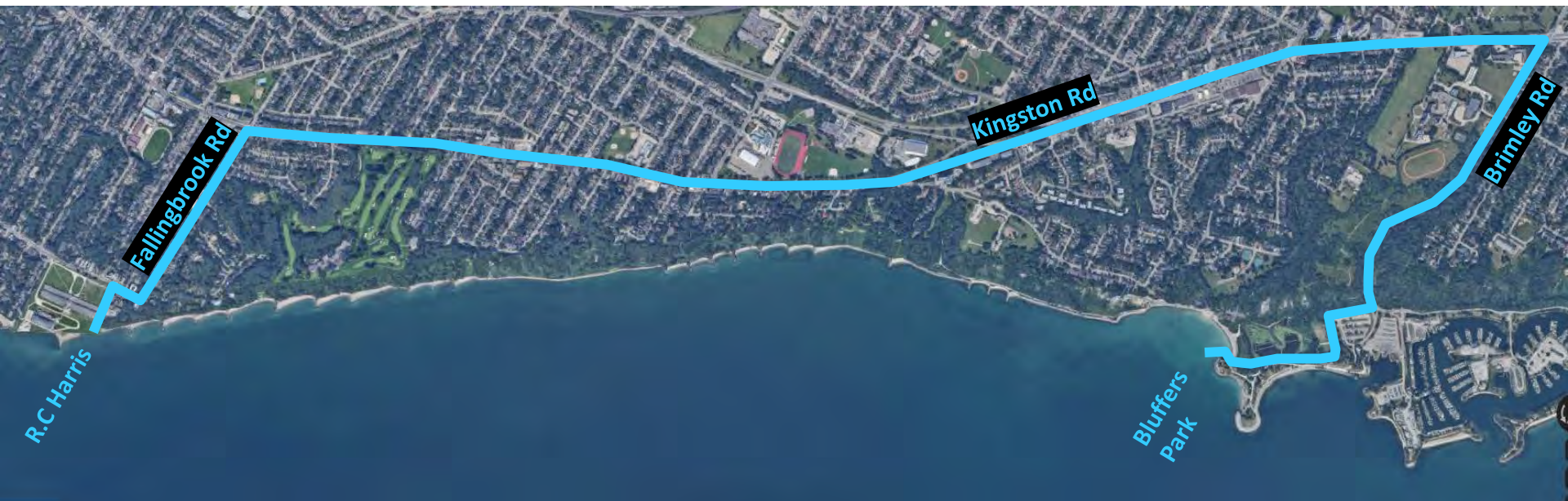
15 Scarborough Waterfront Project

16 Erosion East & West of Highland Creek

17 Rouge Beach

Scarborough Bluffs West

Environmental Assessment



Bluffer's Park

South Headland & Southwest Headland



South Headland

**Southwest
Headland**

Bluffer's Park

South Headland & Beach Maintenance

2017 High Lake Level and 2018 Windstorm Erosion Control Projects

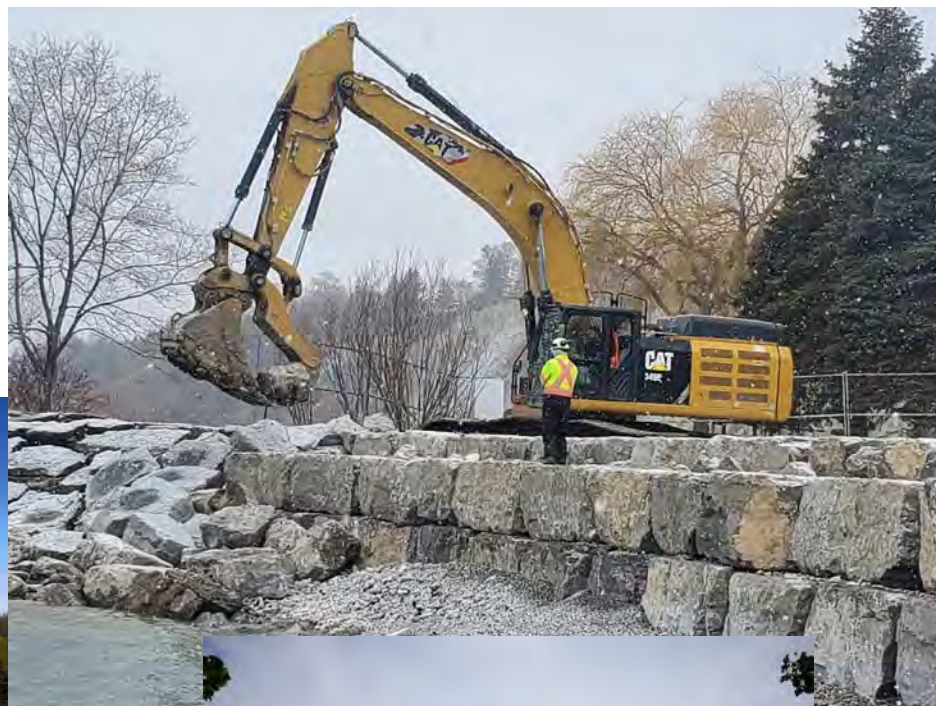


Bluffer's Park

South Headland & Beach Maintenance Project Phase 4

2022 Completed Phase 4 West Beach Works

- 70 metre armourstone wall
- 90 metres of stone revetment / facing



Bluffer's Park

Southwest Headland & Beach Maintenance



Bluffer's Park

Southwest Headland & Beach Maintenance

- **2023 Phase 3 Southwest Headland Works:**
 - TRCA capital project
 - Q4 2022-Q1 2023 - permits and approvals
 - Late Q1 2023 –Q2 2023 construction start
- **Scope:**
 - Rock structure void filling
 - Placement of armour stone
 - Shoal construction to improve beach stability



15 **Scarborough Waterfront Project**
Environmental Assessment



15 Scarborough Waterfront Project

West Segment Shoreline Trail



16 Erosion West of Highland Creek *Shoreline Protection Project*

January 2023:

- Asphalt from damaged trail removed and stockpiled
- Material to raise trail above shoreline on site, installation in progress
- Trees and vegetation in work area removed, tree protection installed around work area



Port Union Beach Curb *(East of Highland Creek)*

Shoreline Protection Project

Completion Date: December 2022

- Constructing an armourstone wall in front of the existing beach curb
- Repairing existing beach curb
- Constructing nearshore reef habitat features (submerged)
- Spot repair damaged parts of Waterfront Trail



Rouge Beach

Environmental Assessment

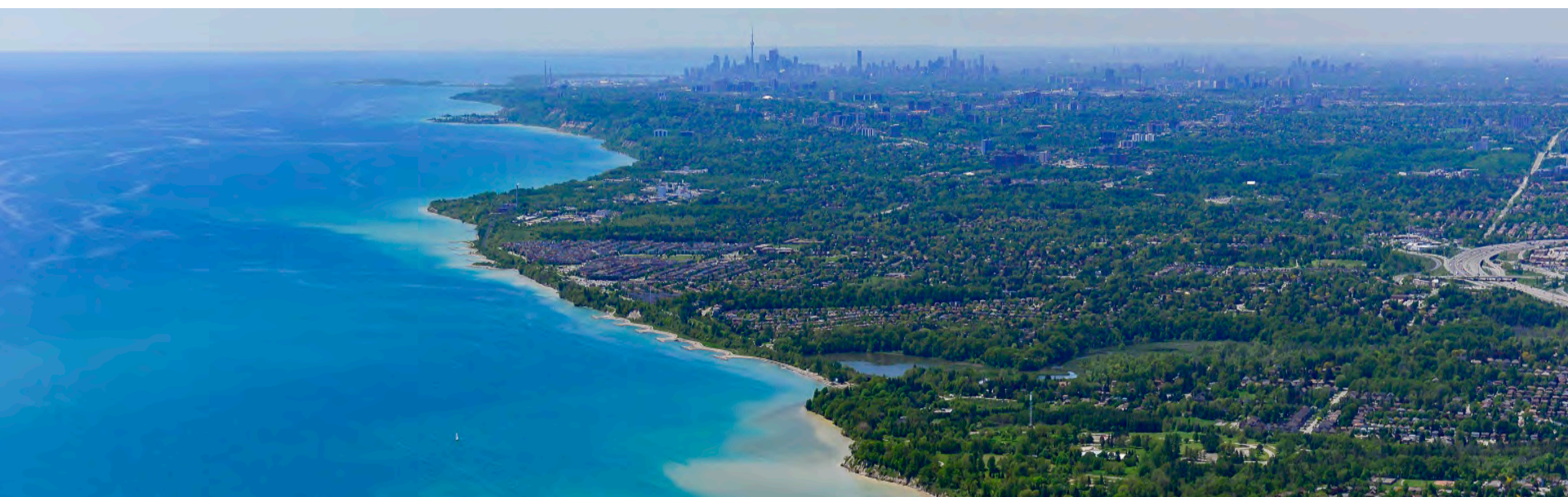
2020 Priority repair of amourestone beach curb to protect waterfront trail.

2023 Scope of Work: Install shoreline protection structures along the west side of Rouge River Mouth and Rouge Beach to protect the Waterfront Trail and beach infrastructure.



TRCA's Continuing Priorities

- Leverage opportunities to create resiliency and public recreation opportunities along the shoreline
- Support our partners with science, data, and expertise to advance sustainable planning decisions
- Facilitate collaboration – InnerHarbour Floatables Strategy being led by TRCA with a working committee from CoT Waste, PF&R, Waterfront Secretariat, PortsToronto and Harbourfront Centre
- Explore & pursue funding opportunities with City and other partners to advance projects



Questions

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