

2020 Marine Use Strategy

FINAL REPORT - DRAFT

October 2020

Executive Summary

In 2006, Waterfront Toronto commissioned the development of a Marine Use Strategy to ensure that the diverse marine uses and users are accommodated in appropriate locations with adequate facilities in the context of waterfront revitalization. The document, in general, included: a comprehensive inventory of marine users (industrial, commercial and recreational), facilities, programs and events on the waterfront; a range of marine issues affecting the waterfront, identifying members of the waterfront marine community, a market study to assess future demand of marine facilities, a list of required improvements to meet future demands; and an implementation strategy to achieve the improvements.

The 2006 Marine Use Strategy Vision “embraces the community of marine uses and users on the waterfront” and was built around the following five (5) core themes:

- Recognizing and Expanding an Exceptional Resource - Protect and expand the range of facilities and opportunities for marine users;
- Embracing Integrated and Sustainable Planning on the Waterfront - Ensure that a diverse range of marine uses as well as marine compatibility, safety and environment are considered in waterfront planning processes;
- Promoting an Active, Diverse and Accessible Waterfront - Plan and support an animated waterfront for all, on land and in the water;
- Planning Marine Districts through Revitalization - Identify specific opportunities to take advantage of marine use opportunities as planning for districts progresses;
- Implementing the Strategy through Steady Investment - Monitor marine uses and supporting facilities and infrastructure and cooperate with stakeholders to facilitate consistent and accountable investment;

Despite changes that have taken place over the past 14 years in regard to marine uses on the waterfront, the overall Vision as well as the five themes surrounding this Vision are considered still relevant today. This update of the 2006 strategy therefore focuses on defining next steps, action plans and recommendations to start implementing the strategy, while also addressing some new development such as the flood protection work on the mouth of the Don River.

2020 MARINE USE STRATEGY & IMPLEMENTATION PLAN

In June 2019, Waterfront Toronto (WT) in partnership with PortsToronto (PT), Toronto and Region Conservation Authority (TRCA) and the City of Toronto (City) retained WSP Canada to update the 2006 Marine Use Strategy with an emphasis on implementation of priorities for the Inner Harbour. The Marine Use Strategy is one component of a much broader waterfront revitalization initiative and covers an area with a long history of planning and marine use.

As with any good strategy, a revisit allows for benchmarking of earlier ideas and facilitates an update to accommodate recent developments. Updating the 2006 Marine Use Strategy will allow for aligning with new planning initiatives, on-going and planned development projects, infrastructure investments and habitat restoration projects. It will also address the growing and expanding user base and interest in water-related recreation and transportation.

The study area encompasses two parts, the ‘Primary Focus Area’ and the ‘Larger Study Area’, as also illustrated in the figure below:

STUDY AREA

Primary Focus Area: This area will undergo the most significant change over the next 5-10 years and henceforth requires priority focus to integrate groundside design and programming decisions with Marine Use Strategy actions.

Larger Study Area: This area includes the remainder of the Inner Harbour, the Toronto Islands, Ontario Place, Port Lands, the Outer Harbour and Leslie Spit. This area was delineated to encompass any likely expansion of water-based transportation activity and to consider potential alternative mooring locations for those that may be impacted by revitalization activity in the Primary Focus Area.

The main objectives in updating the 2006 Marine Use Strategy are defined as follows:

- Ensuring that marine uses and users are accommodated in appropriate locations with adequate facilities in the context of Waterfront Revitalization;
- Maintaining a proper balance of marine uses as waterfront revitalization progresses (including commercial shipping, tour boats, recreational boating and water-based transportation);

- Prioritization of implementation strategies by order of urgency;
- Identification of implementation responsibilities;
- Ensuring that the updated strategy will be used by all parties (WT, City, PT, TRCA) to:
 - Guide conceptual and detailed design of public and private investment in shoreline improvements;
 - Identify partnerships that will support successful implementation of key actions;
 - Provide a resource for inter-related planning processes within the study area, and;
 - Inform long-term capital funding requests.

STAKEHOLDER ENGAGEMENT

Throughout the development of the Marine Use Strategy, several touch-points, feedback and information sessions were held with the following stakeholders and partners:

Stakeholder Advisory Committee (SAC): The SAC is a forum for key waterfront stakeholders representing diverse interests (i.e. user groups, resident associations,

waterfront businesses) that acted as a sounding board for the project team through the development of ideas and recommendations; provided guidance, critique and suggestions arising through the study process; and assisted to identify potential stakeholder issues or concerns and how these might be addressed.

Technical Advisory Committee (TAC): The TAC is a representation of City departments and agencies with expertise in marine operations and programming within the study area (i.e. City of Toronto Fire, Police, EMS, Waterfront Parks, City Planning, Harbourfront Centre, etc.). This group provided advice and knowledge on the technical feasibility, validity, regulatory processes and likely success of ideas and solutions brought forward through each phase of the study process. The TAC was also requested to review draft technical background reports and analyses.

Public Information Sessions (PIC): Two Public Information Sessions were held during which the project team informed the public about the purpose of the study. During the first PIC, meaningful conversations were had, and feedback was solicited from the participants, which was fed back into the report. The second PIC will be used to inform the public about the final outcome of the study: the Summary of Recommendations and Considerations.



Indigenous Engagement: Engagement with Indigenous Communities was led by WT under guidance of Indigenous Affairs Office at The City of Toronto. The project team presented to the Aboriginal Affairs Advisory Committee and consulted with the Toronto Inuit Association, the Toronto York Region Métis Council, Mississaugas of the Credit First Nation, Urban Indigenous groups through Toronto Aboriginal Support Services Council and waterfront Indigenous residents.

Harbourfront Centre: The project team engaged Harborfront Centre through the SAC and TAC. Harbourfront Centre is a leading international centre for contemporary arts, culture and ideas, and a registered, charitable not-for-profit cultural organization operating a 10-acre campus on the central waterfront. Harbourfront Centre offers an array of water-based recreational activities for individuals of all abilities - including tour and charter boat operations, pleasure craft in marinas, recreational sailing, powerboating (Harbourfront Centre Sailing & Powerboating), canoeing, and kayaking, as well as hotel type accommodation aboard a boat. Harbourfront Centre also acts as a base or access point for a myriad of activities on the Toronto Islands with water taxis and marina and yacht tenders. Harbourfront Centre is also the owner and operator of two prime marinas on the central waterfront – Marina 4 and Marina Quay West - hosting many year-round boaters. In addition, Harbourfront Centre services and maintains over 32,000 square feet of boardwalks and dock walls. Harbourfront Centre maintains this infrastructure to accommodate more than 42 commercial vessels operated by 23 companies and various activities, including the piers, docks, fendering, utilities, the adjacent boardwalks and dock walls on York and John Quays, and additional properties managed as far west as Dan Leckie Way.

MOVEMENT, MOORING & MANAGEMENT

The Marine Use Strategy is a multi-faceted document. It is meant to be aspirational – to provide a roadmap to creating a more animated and accessible waterfront city - but also practical and remind us of the need to maintain what we have today. And whether dealing with our past, present, or future, the Marine Use Strategy is meant to improve the ways in which we make decisions - big and small - that shape and improve our relationship to Lake Ontario, and to include diverse and representative stakeholder voices in that decision-making process.

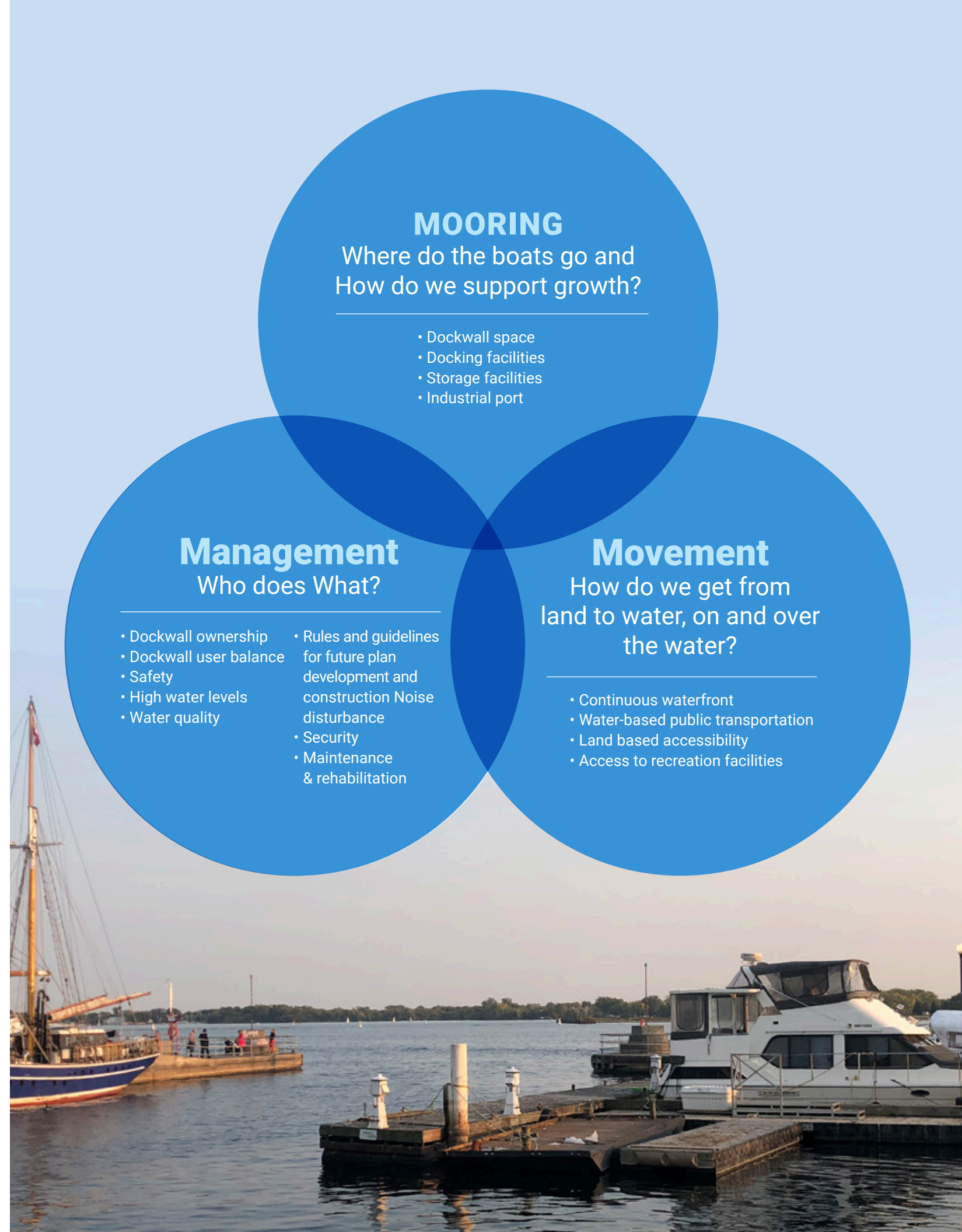
To ensure adequate representation for each of these overarching goals, the Marine Use Strategy’s recommendations are divided into three key streams: Movement, Mooring and Management.

The **Movement** chapter is rooted in a principle of creating “more connections to more destinations”. This means not only making it easier to get people to the water’s edge, but also on, in and over the water. In this chapter you will find ideas and recommendations related to:

- the creation of continuous waterfront connections;
- ideas for the expansion of water-based public transportation; and
- recommendations for improving ‘landside’ planning, development and public space decisions, to provide more support for active marine uses.

The **Mooring** chapter is quite simply about boats. Where should boats of different sizes, needs and functions be located on our waterfront? Are certain mooring locations better suited to certain types of boats? And how do we support a growing interest in using all types of watercraft – from stand-up paddle boards, to kayaks and sailboats and cruise ships – as a means to enjoy all our waterfront has to offer. In the Mooring chapter you will find ideas and recommendations related to dockwall space; docking facilities; storage facilities; and the industrial port.

Finally, the **Management** chapter explores the question: “who does what?”. Toronto’s changing waterfront contains a number of moving parts, each managed by different partners. Numerous – and sometimes overlapping - jurisdictions, ownerships and legacy agreements, can often create confusion and delay, even for seemingly simple maintenance decisions. The Management chapter is therefore a ‘call to action’. It is an acknowledgement that improvements and greater clarity are needed with respect to the decision-making process for uses and activities in the water and along our shoreline; that these decisions ought to be made in a more consistent and transparent fashion; and that better co-ordination is needed when it comes to the state-of-good-repair investment in the infrastructure and assets that enable the public’s use and safe enjoyment of the water.



MOORING
Where do the boats go and How do we support growth?

- Dockwall space
- Docking facilities
- Storage facilities
- Industrial port

Management
Who does What?

- Dockwall ownership
- Dockwall user balance
- Safety
- High water levels
- Water quality
- Rules and guidelines for future plan development and construction Noise disturbance
- Security
- Maintenance & rehabilitation

Movement
How do we get from land to water, on and over the water?

- Continuous waterfront
- Water-based public transportation
- Land based accessibility
- Access to recreation facilities

Table of Contents

1	INTRODUCTION	10	4	MOORING	60
1.1	Waterfront Toronto	12	4.1	Current Mooring on the Waterfront	62
1.2	2006 Marine Use Strategy	12	4.2	Near Term Mooring Needs & Options	62
1.3	Marine Use Strategy Update	16	4.2.1	Parliament Street Slip	62
1.3.1	Study Objectives	16	4.2.2	Winter Lay-Up	66
1.3.2	Study Deliverables	16	4.2.3	Temporary Mooring	66
1.3.3	Study Area	16	4.3	Long Term Mooring Needs	67
1.3.4	Process and Timeline	17	4.3.1	Tour / Charter Boats	67
2	THE TORONTO WATERFRONT TODAY	20	4.3.2	Marina Slips	68
2.1	Changes on the Waterfront	22	4.3.3	Canoe / Kayak	69
2.2	Trends in Marine Uses	26	4.3.4	Cruise	69
2.3	Dockwall Inventory	32	4.3.5	Water Taxis	70
2.4	Stakeholder Consultation	33	4.3.6	Event Mooring	70
2.4.1	What We Heard: Issues Raised	34	4.3.7	Industry	71
2.5	Indigenous Engagement	38	4.3.8	Floating Structures and Art on the water	72
2.5.1	Brief Historical Context	38	4.4	Long-Term Mooring Options	74
2.5.2	Today's Condition	38	4.4.1	Western Channel to Peter Street Slip	74
2.5.3	Engagement	37	4.4.2	Central Waterfront and York Street Slip	76
2.5.4	Urban Indigenous Groups	39	4.4.3	Yonge Street Slip	78
2.5.5	StewardShip and Continuous Engagement	40	4.4.4	Redpath & Jarvis Street Slip	80
2.6	Movement, Mooring & Management	41	4.4.5	East Bayfront & Parliament Street Slip	81
3	MOVEMENT	42	4.4.6	Keating Channel & Villiers Island	82
3.1	Movement: from Land to Water	45	4.4.7	Ship Channel	83
3.1.1	Waterfront Transit	45	4.5	Mooring: Considerations	84
3.1.2	Waterfront Trails and Promenades	46	4.5.1	Additional Finger Piers	84
3.2	Movement: Onto the Water	58	4.5.2	Common User Dock	84
3.3	Movement: Over the Water	49	4.5.3	Facilities for Marine Users	84
3.3.1	Existing Public Marine Transportation	49	4.5.4	Multi-user Pier	84
3.3.2	Future Public Marine Transportation	49	4.5.5	Creating an Active Waterfront	84
3.3.3	Types of Public Marine Transportation	54	4.5.6	Cultural Destinations on the Waterfront	86
3.3.4	Future Marine Nodes	54			
3.4	Movement: Considerations	59			
3.4.1	Navigation Conditions	59			
3.4.2	Connectivity to Onshore Transit	59			
3.4.3	Ice Breaking in the Inner Harbour	59			
3.4.4	Industrial Shipping	59			

Table of Contents

5	MANAGEMENT	88
5.1	Introduction	91
5.2	Ownership & Maintenance	91
5.2.1	Water's Edge Ownership Map	91
5.2.2	Maintenance	94
5.3	Mooring Leasing Approvals	95
5.4	Dockwall Coordination	95
5.5	Safety	96
5.5.1	Standards, Wayfinding, Safety Stations	96
5.6	Stewardship and Leadership	96
5.6.1	Lake Level Management	96
5.6.2	Engage First Nations as Stewards	96
5.7	Marine Coordination Committee	97
6	SUMMARY & NEXT STEPS	98
6.1	Implementation Roadmap	100
6.1.1	Summary of Recommendations	100
6.1.2	Implementation Phases	
6.2	Recommendations	102
6.3	Considerations	106
	MAPS	
	Map 1 - Marine Use Inventory Map	
	Map 2 - Water's Edge Ownership Map	
	Map 3 - Existing Public Marine Transportation	
	Map 4 - Future Potential Public Marine Transportation	





1

Introduction

1.1 / THE PROJECT TEAM

Waterfront Toronto: Waterfront Toronto is the public advocate and steward of waterfront revitalization. Created by the Governments of Canada and Ontario and the City of Toronto, Waterfront Toronto is mandated to deliver a revitalized waterfront. Formally created in 2001, Waterfront Toronto has a 25-year mandate to transform 800 hectares (2,000 acres) of brownfield lands on the waterfront into beautiful, sustainable mixed-use communities and dynamic public spaces.

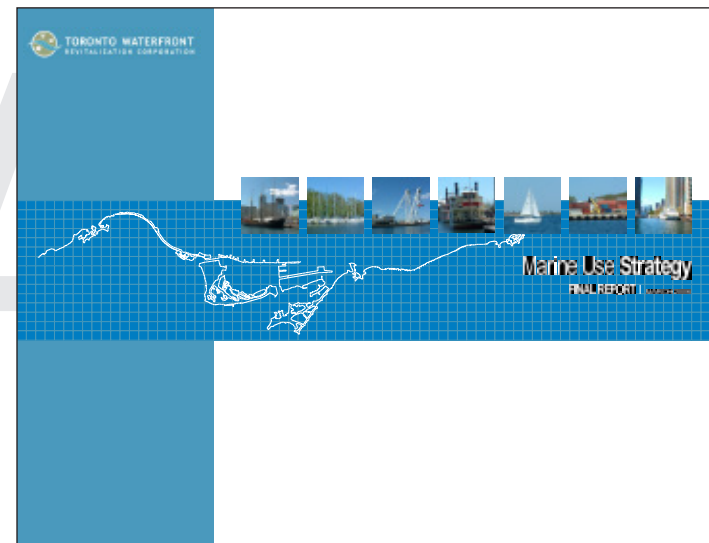
City of Toronto: The City of Toronto is one of the most livable cities in the world, and offers a high quality of life for 2.9 million residents who choose to live and work here. Toronto is a waterfront city, and Waterfront renewal is an important initiative in the City. The City's Waterfront Secretariat leads the Toronto Waterfront Revitalization Initiative on behalf of the City of Toronto. Secretariat staff work with federal and provincial partners and Waterfront Toronto to ensure the right structures, agreements, and supports are in place to advance revitalization in the Designated Waterfront Area (DWA).

PortsToronto: PortsToronto owns and operates Billy Bishop Airport, the Port of Toronto, the Outer Harbour Marina and other real estate properties on a self-sustaining basis, allowing for the reinvestment of funds into transportation infrastructure, marine safety, environmental protection and community programming. As a steward of Toronto's waterfront resources, PortsToronto works closely with the broader community and partner organizations to protect and clean the harbour and ensure our assets provide opportunity and enjoyment for future generations. Through its efforts, PortsToronto plays an important city-building role in the economic growth and sustainable future of Toronto.

The Toronto Region and Conservation Authority (TRCA): TRCA is one of the 36 conservation authorities in Ontario and its area of jurisdiction includes 3467 square kilometers; 2,506 on land and 961 water-based in Lake Ontario. Founded in 1957, TRCA was created to safeguard and enhance the health and well-being of watershed communities through the protection and restoration of the natural environment and the ecological services the environment provides. The lands TRCA administers are used for flood control, recreation, education and watershed preservation activities, including drinking water source protection. TRCA was involved as part of the project team in the initial phase of the study and was involved as part of the Technical Advisory Committee (TAC) during the later phases.

1.2 / 2006 MARINE USE STRATEGY

In 2006, Waterfront Toronto commissioned the development of a Marine Use Strategy to ensure that the diverse marine uses and users are accommodated in appropriate locations with adequate facilities in the context of waterfront revitalization. The document, in general, includes: a comprehensive inventory of marine users (industrial, commercial and recreational), facilities, programs and events on the waterfront; a range of marine issues affecting the waterfront, identifying members of the waterfront marine community, a market study to assess future demand of marine facilities, a list of required improvements to meet future demands; and an implementation strategy to achieve the improvements.



The 2006 Marine Use Strategy Vision “embraces the community of marine uses and users on the waterfront” and was built around the following five (5) core themes:

- Recognizing and Expanding an Exceptional Resource - Protect and expand the range of facilities and opportunities for marine users;
- Embracing Integrated and Sustainable Planning on the Waterfront - Ensure that a diverse range of marine uses as well as marine compatibility, safety and environment are considered in waterfront planning processes;
- Promoting an Active, Diverse and Accessible Waterfront - Plan and support an animated waterfront for all, on land and in the water;

- Planning Marine Districts through Revitalization - Identify specific opportunities to take advantage of marine use opportunities as planning for districts progresses;
- Implementing the Strategy through Steady Investment - Monitor marine uses and supporting facilities and infrastructure and cooperate with stakeholders to facilitate consistent and accountable investment;

Despite changes that have taken place over the past 14 years in regard to marine uses on the waterfront, the overall Vision as well as the five themes surrounding this Vision are considered still relevant today. The update of the 2006 Marine Use Strategy therefore focuses on defining next steps, action plans and recommendations to start implementing the strategy, while also addressing some new development such as the flood protection work on the mouth of the Don River.

For each of the five core themes, the 2006 Marine Use Strategy defined a total of 55 wide-ranging ‘Implementation Ideas’. Some of these ideas were generic and some very specific. Since 2006, the waterfront has undergone significant development, leading us to analyze these implementation ideas in a new context. The following conclusions can be drawn: (refer to the **Resource Guide Section A** for a full overview of the status of all Implementation Ideas):

- 10 of the implementation ideas have been fully implemented and 30 of them have been implemented through various ongoing projects, but are still relevant today and a significant number of these ideas were again put forward during stakeholder consultation (refer also to examples below);
- 15 of the implementation ideas have not yet been implemented (for different reasons), but are still relevant today and a significant number of these ideas were again put forward during stakeholder consultation;
- For the Inner Harbour Area (considered the key focus area for the Marine Use Strategy), the following implementation ideas (although partly implemented already) are still relevant:
 - Incorporate marine uses that complement, activate and mutually reinforce the landside uses of the East Bayfront Precinct Plan;

- Maintain city-side facilities for the marine users located on Toronto Island;
- Foster the creation of a network of water taxi stops connecting destinations around the Inner Harbour;
- Use the existing dockwall as efficiently as possible for the mooring of tour/charter boats and upgrade the facilities to service these vessels when making investments in dockwall repairs;
- Support the retention of existing marine users and activities around the waterfront.



A few examples of implementation ideas are illustrated below (refer to the Resource Guide Section A for a full review).



Spadina WaveDeck

2006 Implementation Idea: Foster innovative design solutions for water's edge treatments that acknowledge different shoreline conditions, a range of marine uses, and that convey the unique sense of place that comes from being at the water's edge **Still Relevant.**

Prime examples of implementation are the Simcoe and Spadina WaveDecks (built in 2008 and 2009). Not only have these innovative structures enhanced the uniqueness of the waterfront, they also facilitated the creation of aquatic habitats underneath **Status: Ongoing.**



Port Lands Flood Protection Plan

2006 Implementation Idea: Promote a range of water's edge conditions that maximize public access and promote habitat creation without precluding marine uses. **Still Relevant**

The Port Lands area (Villiers Island Precinct Plan) includes the naturalization of the mouth of the Don River. This development will create natural habitat and allow for increased public access to the water. **Status Ongoing**



Wetlands in Tommy Thompson Park

2006 Implementation Idea: Explore opportunities for recreational fishing, including potential locations for the provision of facilities such as fishing piers. **Still Relevant.**

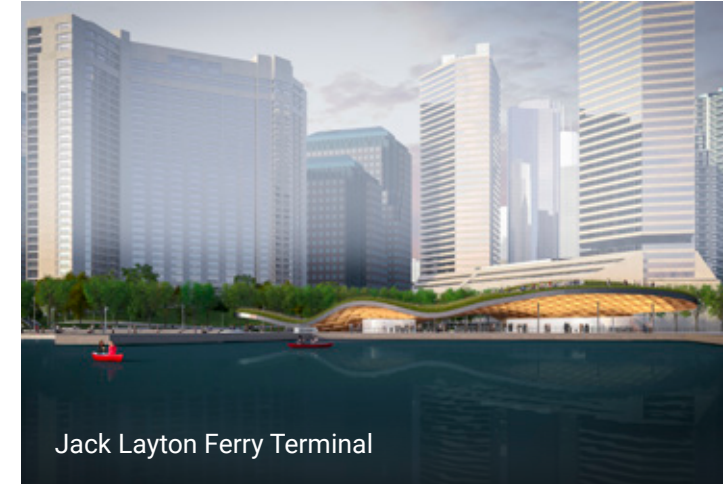
In 2015, the Toronto and Region Conservation Authority built recreation nodes on Unwin Avenue at the Outer Harbour Marina. These nodes have become popular fishing spots. **Status: Complete**



Canada's Sugar Beach

2006 Implementation Idea: Anticipate ongoing industrial shipping to Redpath's facilities at the foot of Jarvis Street. **Still Relevant.**

To ensure the sugar refinery can coexist with its neighboring residents, public parks and commercial office buildings were developed around Redpath and act as a buffer zone. The construction of the public park, Canada's Sugar Beach, further allows for a combination of 'urban beach life' with a view of more traditional port activities such as cargo being offloaded from a nearby vessel. **Status: Complete.**



Jack Layton Ferry Terminal

2006 Implementation Idea: Include a plan for marine uses and facilities when the Yonge Street Precinct Plan is prepared, with integrated planning of both sides of the slip, acknowledging the existing use of the dockwall by charter boats and the Toronto Island Ferry Terminal. The plan should consider redevelopment of the ferry terminal, which will also allow consideration of increased ferry service and service to new locations.

The Lower Yonge Precinct Plan has been prepared with all of the above in mind. In addition, a new master plan for the Jack Layton Ferry Terminal was developed, which integrates the ferry terminal and Harbour Square Park into the continuous network of renewed public space around the site flowing from York Slip to Yonge Slip. The master plan ensures improved ferry terminal operations and includes the creation of new aquatic habitat. **Status: Ongoing**



Jack Layton Ferry Terminal

1.3 MARINE USE STRATEGY UPDATE

In June 2019, Waterfront Toronto (WT) in partnership with PortsToronto (PT), Toronto and Region Conservation Authority (TRCA) and the City of Toronto (City) retained WSP Canada to update the 2006 Marine Use Strategy with an emphasis on implementation of priorities for the Inner Harbour. The Marine Use Strategy is one component of a much broader waterfront revitalization initiative and covers an area with a long history of planning and marine use.

As with any good strategy, a revisit allows for benchmarking of earlier ideas and facilitates an update to accommodate recent developments. Updating the 2006 Marine Use Strategy will allow for aligning with new planning initiatives, on-going and planned development projects, infrastructure investments and habitat restoration projects. It will also address the growing and expanding user base and interest in water-related and transportation.

1.3.1 / STUDY OBJECTIVES

The main objectives in updating the 2006 Marine Use Strategy are defined as follows:

- Ensuring that marine uses and users are accommodated in appropriate locations with adequate facilities in the context of Waterfront Revitalization;
- Maintaining a proper balance of marine uses as waterfront revitalization progresses (including commercial shipping, tour boats, recreational boating and water-based transportation);
- Prioritization of implementation strategies by order of urgency;
- Identification of implementation responsibilities;
- Ensuring that the updated strategy will be used by all parties (WT, City, PT, TRCA) to:
 - Guide conceptual and detailed design of public and private investment in shoreline improvements;
 - Identify partnerships that will support successful implementation of key actions;
- Provide a resource for inter-related planning processes within the study area, and;
- Inform long-term capital funding requests.

1.3.2 / STUDY DELIVERABLES

The key deliverables from this study, of which this final report provides the necessary background and lead up, are:

- An Implementation Roadmap with Recommendations, listing the idea, suggesting responsible parties that should be involved, indicating the urgency of implementing and suggesting whether the idea should either be documented as some form of potential policy change or process improvement, is an actionable item (through e.g. a pilot or a feasibility study) or should be subject to continued consultation.
- A Roadmap with Considerations, which are valuable ideas and insights that could not be addressed in light of this strategy update but are worth capturing and provide potential follow up. Here again, the Considerations include listing the idea, suggesting responsible parties that should be involved, indicating the urgency of implementing and suggesting whether the idea should either be documented as some form of potential policy change, process improvement, is an actionable item (through e.g. a pilot or a feasibility study) or should be subject to continued consultation.
- Waterfront Ownership Map. This is a live document that includes valuable information with regards to ownership of water lots, dockwall structures and adjacent land plots.
- Marine Use Inventory Map. This map provides a full overview of all marine uses on the Toronto Waterfront that were identified at the time of writing this final report.

1.3.3 / STUDY AREA

The study area encompasses two parts, the 'Primary Focus Area' and the 'Larger Study Area', as also illustrated in **Figure 1.1**.

Primary Focus Area: This area will undergo the most significant change over the next 5-10 years and requires priority focus to integrate design and programming decisions with Marine Use Strategy actions.

Larger Study Area: This area includes the remainder of the inner harbour, the Toronto Islands, Ontario Place, Port Lands, the outer harbour and Leslie Spit. This area was delineated to encompass any likely expansion of water-based transportation activity and to consider potential alternative mooring locations for the existing mooring locations that may be impacted by revitalization activity in the Primary Focus Area.

Waterfront areas in Etobicoke and Scarborough are outside the focus and larger study areas. These areas are subject to other studies, such as the Scarborough Waterfront Project, which is a joint project taking place between the City of Toronto and the TRCA.

1.3.4 / PROCESS AND TIMELINE

Throughout the development of the Marine Use Strategy, several touch-points, feedback and information sessions were held with the following stakeholders and partners:

Stakeholder Advisory Committee (SAC); The SAC is a forum for key waterfront stakeholders representing diverse interests (i.e. user groups, resident associations, waterfront businesses) that acted as a sounding board for the project team through the development of ideas and recommendations; provided guidance, critique and suggestions arising through the study process; and assisted to identify potential stakeholder issues or concerns and how these might be addressed.

Technical Advisory Committee (TAC); The TAC is a representation of City departments and agencies with expertise in marine operations and programming within the study area (i.e. City of Toronto Fire, Police, EMS, Waterfront Parks, City Planning, Harbourfront Centre, etc.). This group

provided advice and knowledge on the technical feasibility, validity, regulatory processes and likely success of ideas and solutions brought forward through each phase of the study process. The TAC was also requested to review draft technical background reports and analyses.

Public Information Centres (PIC); Two Public Information Centres were held during which the project team informed the public about the purpose of the study. During the first PIC, meaningful conversations were had, and feedback was solicited from the participants, which was fed back into the report. The second PIC will be used to inform the public about the final outcome of the study and focussed on the Recommendations and Considerations.

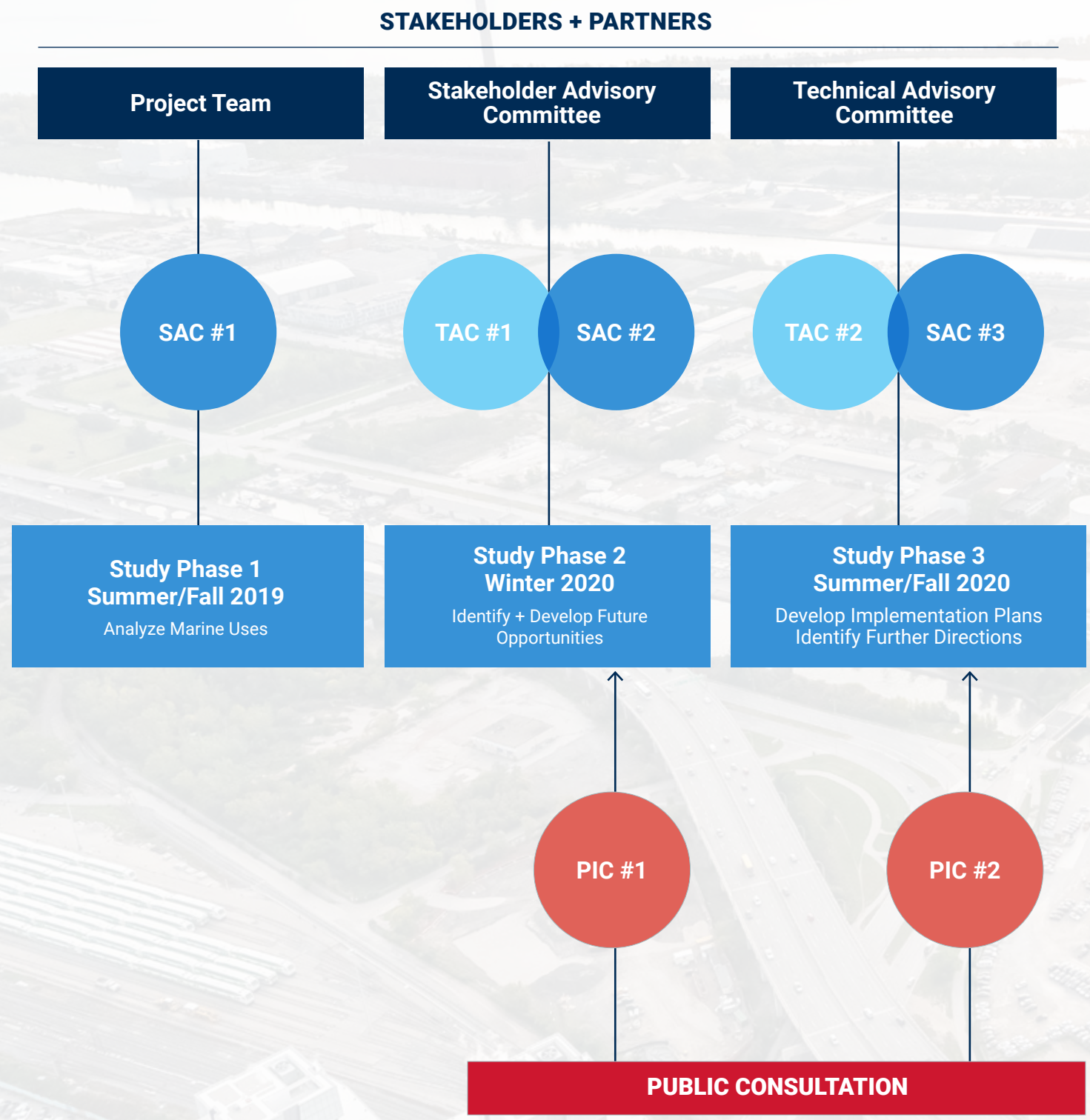
Indigenous Engagement: Engagement with Indigenous Communities was led by WT under guidance of Indigenous Affairs Office at The City of Toronto. The project team presented to the Aboriginal Affairs Advisory Committee and consulted with the Toronto Inuit Association, the Toronto York Region Métis Council, Mississaugas of the Credit First Nation, Urban Indigenous groups through Toronto Aboriginal Support Services Council and Waterfront Indigenous residents.

FIGURE 1.1 – STUDY AREA



The overall timeline of the study and these various touchpoints is illustrated in **Figure 1.2**

FIGURE 1.2 – PROJECT TIMELINE





2

The Toronto
Waterfront Today

Revitalization of Toronto's waterfront is guided by the City of Toronto's Official Plan and the Central Waterfront Secondary Plan. It implements a vision for the waterfront that is mixed-use, connects to surrounding communities, is transit supportive, dynamic, environmentally sustainable, resilient, and has ample opportunity for recreational activities.

The revitalization creates destinations, improved connectivity and accessibility of the water edge and shorelines and adds to demand for, and interest in, water uses for all - residents, workers and visitors. Over time, Toronto's waterfront has seen the following changes that impact the marine uses in this area:

- **New and improved connections to the water's edge: expanded transportation networks and transit;**
- **New waterfront mixed-use neighbourhoods that include; housing, offices, community facilities and institutions;**
- **New urban public spaces, parks and natural areas;**

- **Environmental improvements: shoreline habitat projects and improved water quality; fishing opportunities;**
- **Focus on adaptation to climate change and resilience through flood protection works.**

2.1 / CHANGES ON THE WATERFRONT

Since 2006, Toronto's waterfront has seen a number of changes that have, and in the future will, impact the marine uses in this area and will result in a growing demand and interest in access to the water, water recreation and transportation. These changes present both opportunities as well as challenges for marine uses and are best illustrated as follows:

CHANGES	1 NEW AND EMERGING COMMUNITIES	2 NEW PUBLIC SPACES AND FACILITIES	3 ENVIRONMENT AND RESILIENCE	4 MOBILITY
CHALLENGES	A growing population and growing demand for and interest in marine uses	A need for parks, attractions and new public facilities and institutions along the water's edge	A need for habitat and water quality improvements	A need for public transit and transportation infrastructure improvements (including air quality, and pedestrian and cycling networks)
OPPORTUNITIES	Creation of mixed-use waterfront communities	New parks along the waterfront will provide new opportunities for growth in water recreation	Port Lands Flood Protection will create new shoreline conditions with more opportunities for water-related marine uses along the water's edge	Create improved accessibility to the waterfront for residents, visitors, businesses and support growth

Within the overall waterfront revitalization initiative, there are a number of plans and projects that are being planned or already being implemented by WT, City and TRCA to guide the redevelopment of the waterfront. The implementation of these plans may have impacts on the current and future use of the waterfront for the marine activities identified in this study.

A detailed review of these plans and initiatives was therefore undertaken as part of the Marine Use Strategy, and can be found in the Resource Guide Section B. Some background of these plans and initiatives in light of the four main changes (communities, public spaces, flood protection and mobility) is provided below.

NEW AND EMERGING COMMUNITIES

New and emerging communities include East Bayfront, West Don Lands, Villiers Island as well as new developments within the Keating and Yonge Precincts and Bathurst Quay neighborhood. These communities will see a broad range of new residents living in Toronto's waterfront who will want to engage in water related activities.

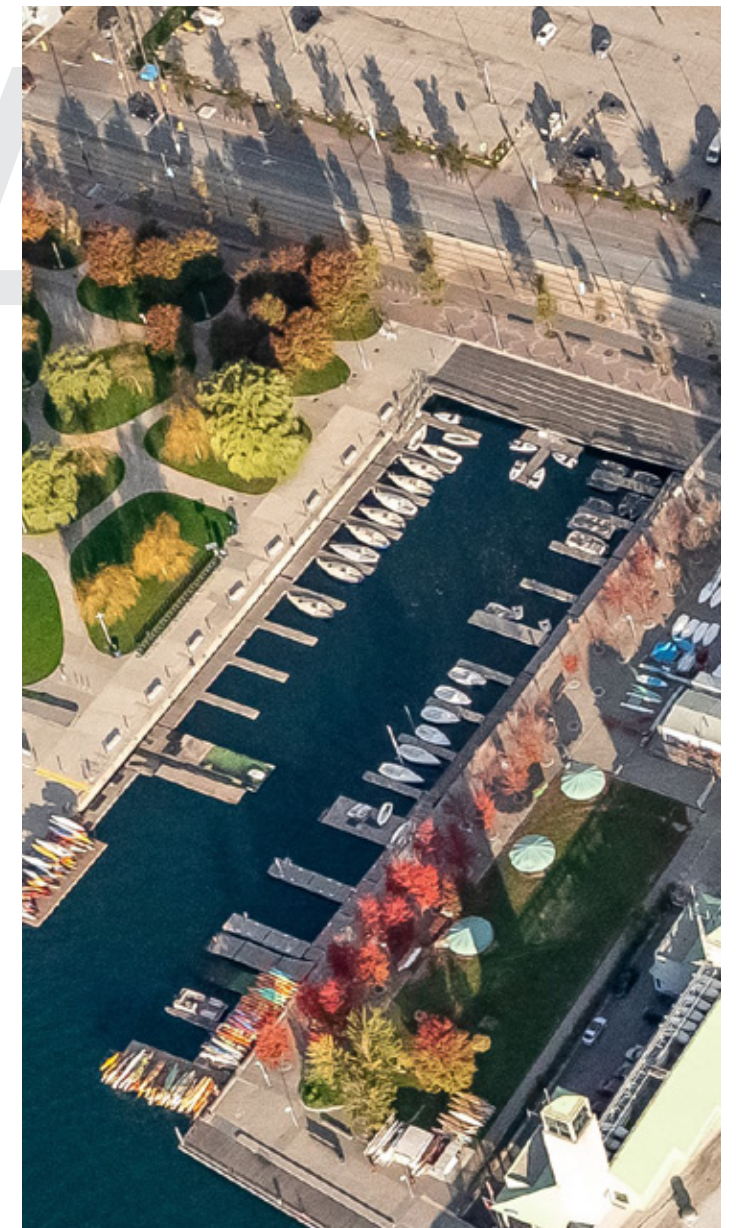
Waterfront Toronto is planning and partnering to ensure that new neighbourhoods along the waterfront are liveable places and enhance the city.



NEW PUBLIC REALM AND PUBLIC FACILITIES

An improved public realm is a catalyst for development and is central to waterfront revitalization. New parks, an extended waterfront promenade, streetscape improvement and public art improve linkages to and connectivity along the water's edge and to the downtown core. These improvements create destinations and more opportunity for public events. In addition to this, community facilities create opportunities for water use programming in addition to supply amenity spaces.

Waterfront Toronto has helped create more than 43 acres of new parks and public spaces that increased public access to the lake. Over the next five years, there will be even more great places for the public to gather.



SUSTAINABILITY AND RESILIENCE

Toronto has a record of innovation when it comes to new neighbourhoods along the lake. A decade ago, Waterfront Toronto introduced Minimum Green Building Requirements to ensure that new developments on the waterfront would lead the way in sustainable design; these standards have since won international awards and been recognized as a landmark in Toronto's evolution toward a greener built environment. In 2005, Waterfront Toronto created Toronto's first independent Design Review Panel, gathering leading experts and city-builders to ensure that waterfront revitalization projects would work together to create beautiful, visually coherent neighbourhoods along the lake. Today, at Villiers Island, a new Port Lands district is currently in its planning stages; Toronto is striving to create one of the world's first climate-positive neighbourhoods

CLIMATE CHANGE

Climate change and extreme weather events have increasingly become an issue on Toronto's waterfront and impact marine uses. The City of Toronto is working with the TRCA to ensure flood mitigation measures are in place to protect the waterfront and there is a team in the Office of Emergency Management to co-ordinate the City's response.

PORT LANDS FLOOD PROTECTION AND ENABLING INFRASTRUCTURE

The rerouting and re-naturalization of the mouth of the Don River will address the risk of flooding for over 290 hectares of land in the Port Lands and to the East of the Don River. It will also unlock the redevelopment potential within the Port Lands and the South of Eastern Employment Area. It will improve natural habitat and create new recreational opportunities for residents, office workers and visitors. New trails, roads and bridges will improve accessibility to the shoreline, and the removal and rehabilitation of marine structures will allow for shoreline naturalization, new mooring and new facilities for marine uses (such as boat launches).

The Port Lands is an area as big as downtown that presents the opportunity for innovative, sustainable development. Waterfront Toronto is making it usable by undertaking large-scale flood protection work and soil remediation.



Port Lands Flood Protection Plan

WATER QUALITY

Approximately 25% of the City is still serviced by a combined sewer system. In a combined sewer system, both sanitary sewage and stormwater runoff enter into the same pipe. These CSOs directly outfall into the harbour during large storm events. Major projects are underway by the City that, when in place, will intercept both CSO outfalls in new tunnels & shafts and transport to a treatment facility at Ashbridges Bay. The Inner Harbour West tunnel is scheduled to be constructed starting in 2027.



MOBILITY

Waterfront neighbourhoods are being transformed with new and improved transportation networks which prioritize walkability and cycling, as well as the existing and planned access to local and regional transit infrastructure. In addition to transportation infrastructure works along the waterfront, the north-south connections to the downtown core are also being improved.

Within the waterfront area there are multiple transportation infrastructure and public transit projects at various planning stages.



OPPORTUNITIES & CONSTRAINTS

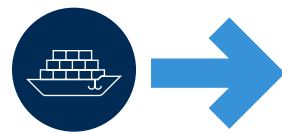
Reviewing the various development plans, studies and infrastructure initiatives against the opportunities they may provide and the impact they may have on the marine use of the waterfront, indicates the following:

- **Public Realm** Most plans have a large focus on the public realm aspects of the waterfront, aiming to provide community amenities and attract visitors to the water, mostly for a non-active marine use experience (enjoy retail, walk alongside the water's edge, visit festivals / cultural events). Ideas put forward to accomplish this range from boardwalks and pedestrian bridges over the slips to better connect different stretches on the waterfront, a 'destination' pier people can visit, accommodation of retail at the water's edge and the need for year-round programming on the waterfront.
- **Dock Space and Access to the Water.** Some plans highlight the need for sufficient dock space for a variety of marine users (recreational, tour / charter, cruise and water taxis). Ideas put forward to accomplish this range from the creation of finger piers to accommodate larger tour/charter boats and even small cruise vessels, small boat mooring facilities in Parliament Street Slip and locations where people can access the water with kayaks and canoes.
- From a public realm perspective, it is understandable to safeguard 'free and undisturbed' views of the harbour from the land. This is however in direct conflict with the need for additional mooring space on the waterfront.
- **Industry.** Some plans identify the need to let existing port industries co-exist with urban development.
- The Turning Basin in the Ship Channel is a crucial part of the working port, which although not occupied full-time, needs to be available to the shipping industry on a continuous basis. Suggestions to use the basin for recreational uses (i.e. over-water-programming) would create potential conflicts with this.
- Most of the cargo vessels serving Redpath will berth inside Jarvis Street Slip. However, at times, large laker vessels will moor across the slip (i.e. in front of the Redpath facility as well as Canada's Sugar Beach). This type of mooring requires the vessels to approach the waterfront in a more parallel way, requiring an unobstructed approach towards their final mooring destination. In planning the Jarvis Slip Special Use site, and any finger piers and public artwork extending perpendicular into the water at East Bayfront, this type of mooring will need to be taken into consideration.
- **Increase in Waterborne Transportation.** Various plans highlight the need for an increase in waterborne transportation, including new ferry terminal and water taxi stations in the Port Lands area. For Billy Bishop Airport, there is also a need for increased and potentially different vehicle transport to the island.

2.2 TRENDS IN MARINE USES

Within the study area, the following six groups of active marine users have been identified: (a) Industrial, (b) Cruise, (c) Recreational Boating, (d) Tour & Charter Boats, (e) Water Taxis and (f) Ferries. As part of the Marine Use Strategy study, main trends of these various user groups have been identified and the results have been used to update the strategy. A more detailed description of these analyses can be found in Section C of the Resource Guide.

INDUSTRIAL SHIPPING



Tonnage of industrial shipping has varied between 1.5 to 2.2 million metric tonnes over the last decade (refer **Figure 2.1**), but has been constant over the last 2-3 years (2.2 million), and is expected to be maintained in the years to come (continuation of construction boom). Commodities that have seen growth over the past 5 years are the import of road salt and cement and aggregates.

Industrial (commercial) shipping will remain in the Toronto Harbour and should be accommodated within the framework of the overall developments on the waterfront.

FIGURE 2.1 – CARGO HANDLING IN THE PORT OF TORONTO

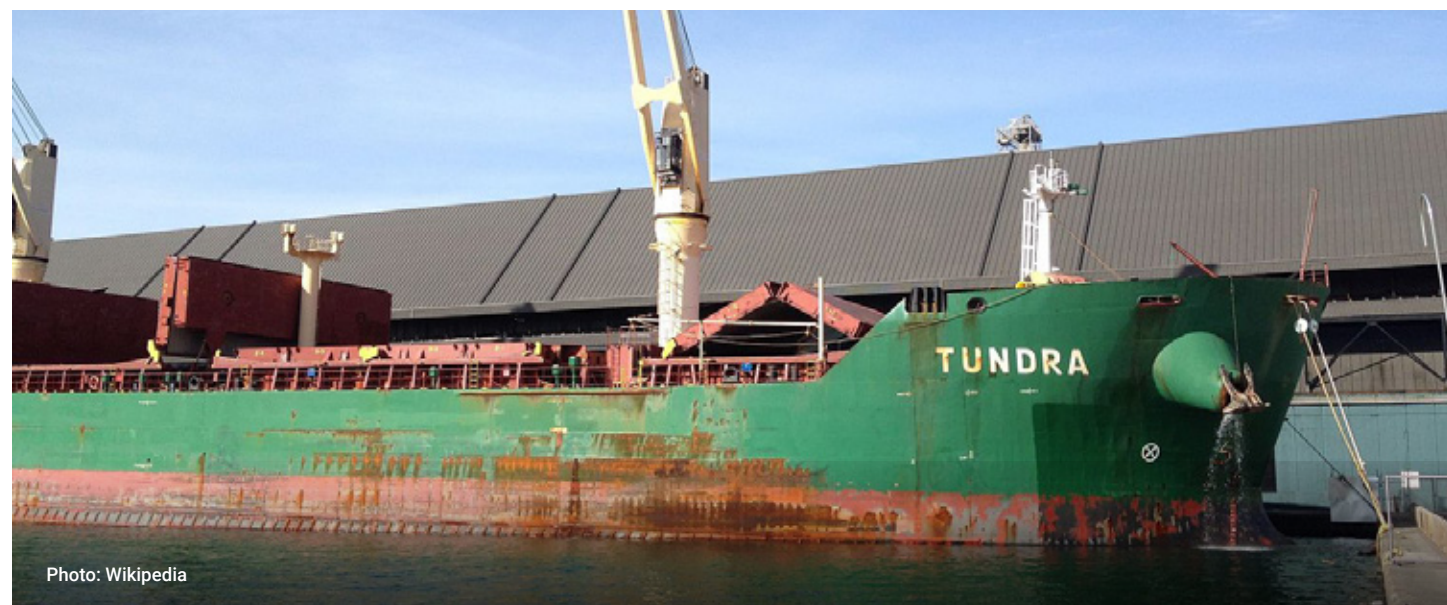
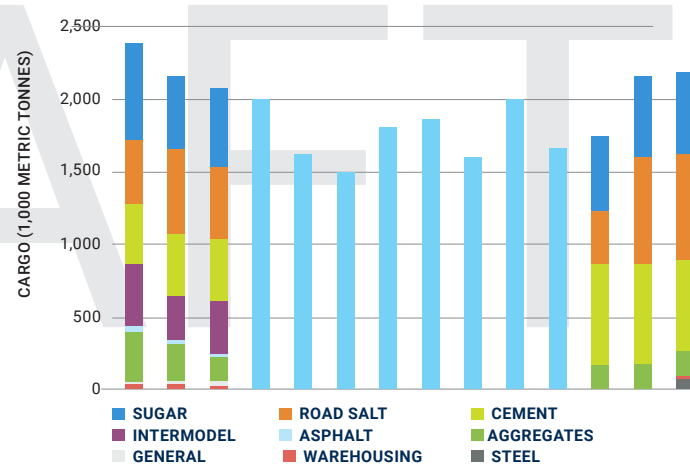


Photo: Wikipedia

Sources: 2005-2007: Ontario Marine Transportation Study, Phase 1 Final Report, Industry Profile and Economic Impact (MariNova Consulting Ltd., Research and Traffic Group, Gardner Pinfold & CPCS Transcom, April 2009) | 2008-2017: Ports Toronto Annual Reports | 2018: <https://www.insidelogistics.ca/cargo-handling/port-toronto-posts-record-2018-154555/>

CRUISE



Cruise traffic grew from 10 to 17 vessels in the period 2000-2018 and saw a doubling of that (34 vessels) in 2019. At the start of 2020, this number was expected to further increase to around 40 vessels (2028), mainly due to small luxury and exploration cruises (Great Lakes and some coastal, refer also **Figure 2.2**). In addition to vessel numbers, the actual size of cruise vessels is also expected to increase (max to approx. 220m).

In the current cruise environment, Toronto serves both as a home port (i.e. a port where passengers arrive and depart at the beginning or end of their cruise) as well as port of call. It has good infrastructure in place to support the industry, in its current form as well with anticipated growth.

FIGURE 2.2 – PROJECTION OF CRUISE VESSELS CALLING UPON TORONTO

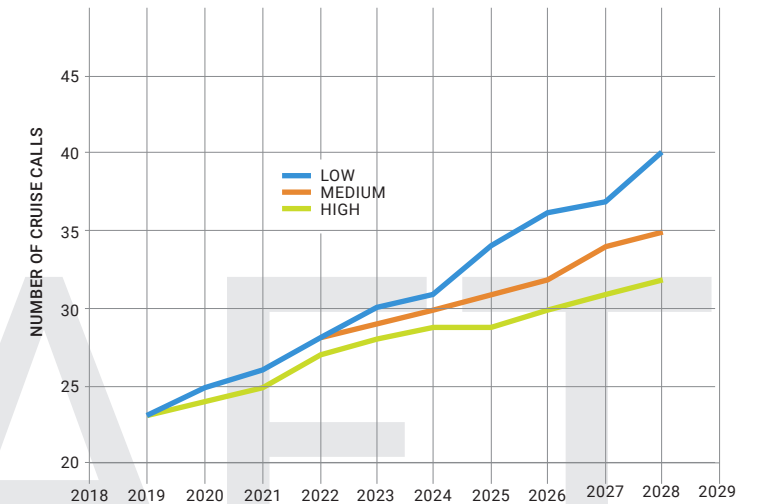


Photo: eturbonews

Source: Great Lakes Cruise Strategy for Ontario's Ports, Task 2: Business Case and Cruise Industry Strategic Action Plan (Bermello Ajamill & Partners, August 2018)

RECREATIONAL BOATING



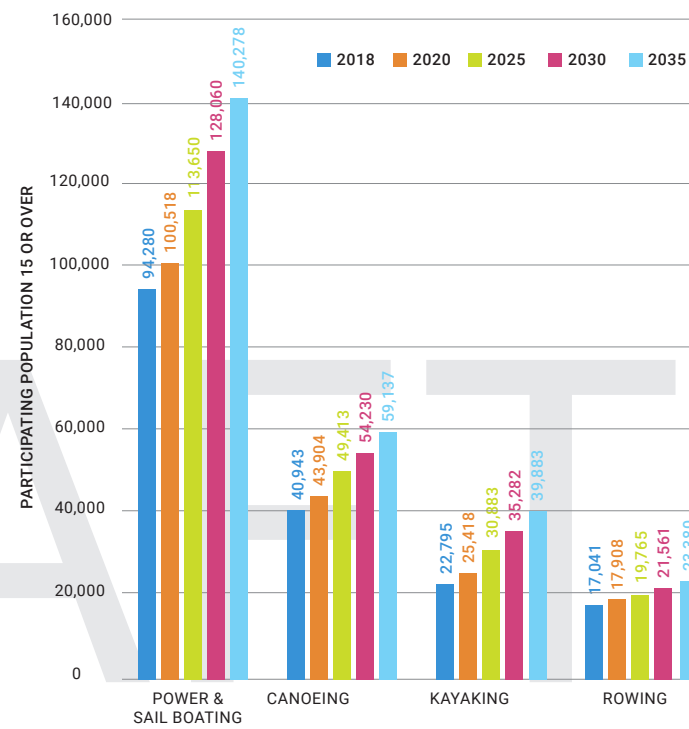
Recreational boating will continue to increase (power & sail boating, canoeing & kayaking, rowing). **Figure 2.3** provides some further detail on the growth projections in this regard.

A recent survey amongst several marinas, yacht and sailing clubs on the Toronto Waterfront indicated that:

- Almost all of them had been operating at 100% capacity for the past few years and had a 1-2 year waiting list for new members;
- Most offered slips are for boats between 25 and 40 feet long, which in part explains the current shortage for slips for small (< 25ft) and very large boats (>45ft);
- Only a very small percentage (approximately 5%) of the available slips was for transient mooring, the majority of this (60%) being provided by the Outer Harbour Marina;

There appears to be a shortage of marina slips on the central waterfront and Toronto Islands, both from a number as well as slip size perspective. When increasing capacity, areas West (e.g. Ontario Place) and East (Outer Harbour) should not be ignored.

FIGURE 2.1 – CARGO HANDLING IN THE PORT OF TORONTO



TOUR / CHARTER BOATS



A projected population growth in the GTA of 12% in 2025 and 29% in 2035, combined with a growth of 13% in tourism in the GTA since 2013, suggests the tour / charter boat industry is expected to grow.

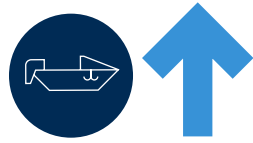
In this respect it is worth noting that the relative stability in the number of tour / charter boats over the past 15 years has not matched the significant growth in tourism in Toronto and that, over time, there has been an increase in the number of requests the City has received from potential tour / charter boat operators.

With Parliament Street Slip no longer available for tour / charter boats in the near future, alternative mooring options need to be provided for some of the existing vessels. To accommodate long-term growth of this industry (if this is considered desirable) significant additional mooring space will need to be created on the waterfront. Additional regulation of this industry may be warranted in concert with growth.



Photo: Toronto Harbour Tours

WATER TAXIS



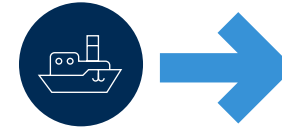
Similar as for the tour / charter boats, a projected population growth in the GTA of 12% in 2025 and 29% in 2035, combined with a growth of 13% in tourism in the GTA since 2013, suggests the water taxi industry is expected to grow.

To accommodate growth in the water taxi industry, additional pick-up / drop-off points may be desirable, as well as a more common user approach in rendering these type of taxi services.



Photo: Toronto Harbour Tours

FERRIES



Since the mid-seventies, ferry passenger numbers (to and from the Toronto Islands) have varied between 1.1 and 1.5 million per year (with few exceptions) and this number is expected to remain constant. If a commuter ferry service alongside the waterfront is introduced, ferry traffic is expected to increase.

Current ferry operations run successfully, however continued passenger growth is putting additional strains on infrastructure, which is to be addressed following the upgrade of the entire Jack Layton Ferry Terminal.



Photo: Centre Island

2.3 / DOCKWALL INVENTORY

Ownership

As part of the Marine Use Strategy, a water's edge ownership map was produced, consolidates ownership status for all water lot, dockwall, waterfront promenade, and adjacent waterfront properties, onto a single, composite map (refer also to Map 2 appended to this report). This composite map will be a 'living' resource and new information will continuously be shared by members of the project team in order to keep this map updated and accurate. This new information tool will also be provided to public and business interests in order to provide an accurate documentation of ownership interests throughout the waterfront

One of the key elements of the water's edge ownership map are the dockwalls on the Toronto waterfront. These dockwalls, which within the study area comprise approximately 24km, are owned by six different organizations. The majority of the dockwall space (43%) is owned by the Toronto Ports Lands Company (TLPC, now CreateTO), followed by the City (31%) and PortsToronto (20%) (refer also Table 2.1 and the Water's Edge Ownership Map).

TPLC owns the vast majority of dockwall space in the Port Lands area (including the Keating Channel), with the exception of the quay walls in the Eastern Gap and berths 512 and 513, which are located on the South-West side of the Ship Channel (refer also **Figure 2.2**).

The City owns the dockwall space on East Bayfront, Central Harbourfront (with the exception of the strip between Jarvis Street Slip and Yonge Street Slip) and Bathurst Quay (i.e. the Northern stretch of the Western Channel).

PortsToronto owns all the dockwall space surrounding Billy Bishop Airport, which is mainly the Southern stretch of the Western Channel, as well as the quay walls in the Eastern Gap and berths 512 and 513 and the dockwall space in the Outer Harbour Marina.

TABLE 2.1 – DOCKWALL OWNERSHIP

OWNERSHIP	LENGTH OF DOCKWALL [M]	PERCENTAGE OF TOTAL [%]
TPLC	10,311	42.8%
City of Toronto	7,525	31.2%
PortsToronto (PT)	4,898	20.3%
Waterfront Toronto (WT)	413	1.7%
Provincial	61	0.3%
Private	322	1.3%
Unknown	573	2.4%
Total	24,103	100%

Physical Condition

Most of the dockwalls in the study area were constructed in the previous century between 1910 and 1940. Some of the structures have seen some form of rehabilitation over the years, but a large number has far exceeded their theoretical life span.

Broadly speaking, there are three different types of structures that make up the 24km of quay wall length, which include timber cribs, timber sheet piling and steel sheet piling. The timber and steel sheet pile walls are secured with tie rods to an anchorage component set inland from the face of the dockwall. Some of the timber and steel sheet pile structures have concrete relieve platforms supported on timber piles immediately inland of the dockwall.

Going from West to East, and based on feedback as received from stakeholders, information available in the public domain or data made available through WT, the physical state of the dockwalls is broadly described in the Resource Guide Section D1.

2.4 / STAKEHOLDER CONSULTATION

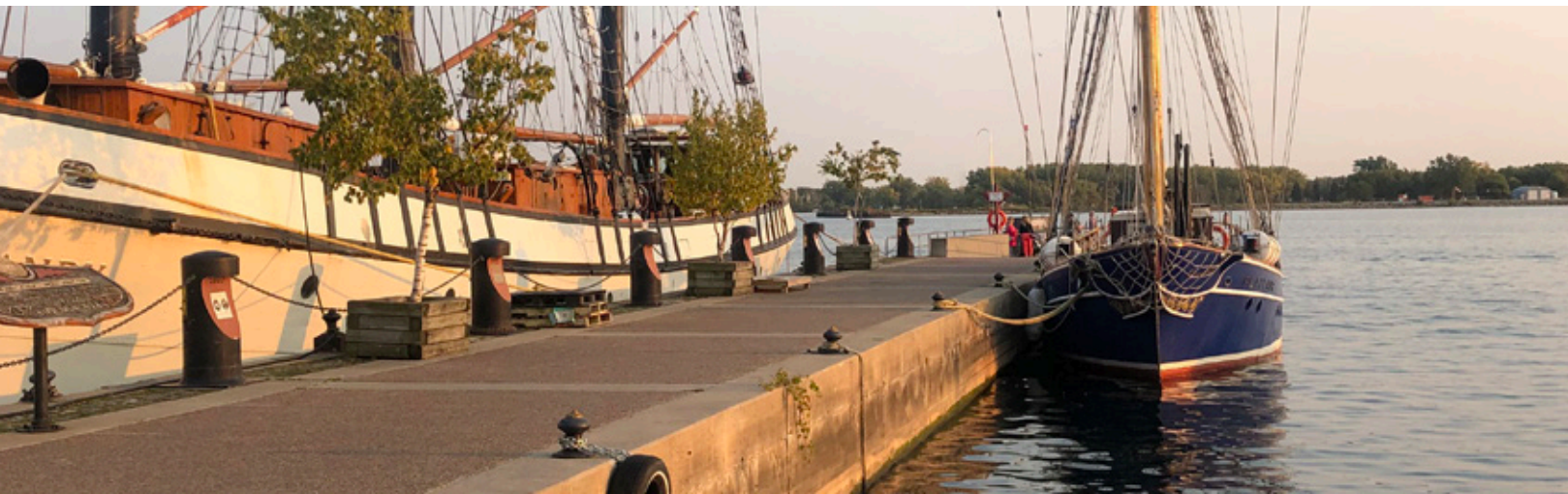
Engaging with marine stakeholders and waterfront users is a crucial part of the Marine Use Strategy, as it provides first hand views and experiences of what does and what does not work on the waterfront at present, what the concerns are in the marine community, now and going forward and what opportunities there may be to improve the marine use in the study area.

Our approach towards the stakeholder consultation process was to ensure that we consulted with different user groups in the marine community. Together, there are in total 11 different user groups (referred to as 'stakeholder category / group' in the below table) which represent as many as 200 different, individual stakeholders. Representatives of each of these user groups (often umbrella organizations)

were invited for interviews. In addition to the stakeholder interviews, WT and the City interviewed the public on two different days. Interviewees included local residents, daytime visitors and tourists making use of the waterfront. These interviews took place near the Ashbridges boat launch as well as Queens Quay. The results of these interviews (labelled under the 'public intercept' stakeholder category) have been included in the overall analysis described in the remainder of this section.

TABLE 2.2 – STAKEHOLDER CATEGORIES / GROUP

#	STAKEHOLDER CATEGORY / GROUP	
1	Business	<ul style="list-style-type: none"> • The Waterfront Business Improvement Association (umbrella) • Canadian Council for Aboriginal Business
2	Cruise Line	<ul style="list-style-type: none"> • Great Lakes Cruising Coalition (umbrella)
3	Industry	<ul style="list-style-type: none"> • K+S Windsor Salt • Lafarge Canada • Redpath Sugar
4	Residents	<ul style="list-style-type: none"> • Bathurst Quay Neighbourhood Association • York Quay Neighbourhood Association • Toronto Island Community Association • Waterfront for All
5	Sailing / Paddling / Rowing Club	<ul style="list-style-type: none"> • Outer Harbour Sailing Federation (umbrella) • Harbourfront Canoe and Kayak Centre • Paddle Canada
6	Tour Boat Operator	<ul style="list-style-type: none"> • Empress Canada • Toronto Passenger Vessels
7	Yacht Club / Marina	<ul style="list-style-type: none"> • Ontario Sailing
8	Private Marine Passenger Transport	<ul style="list-style-type: none"> • Water Taxi Association • The Otter Guy
9	Conservation/Preservation	<ul style="list-style-type: none"> • Swim Drink Fish
10	Not for Profit / Social Enterprise	<ul style="list-style-type: none"> • Disabled Sailing Association of Ontario • Pirate Life
11	Institution	<ul style="list-style-type: none"> • Harbourfront Centre



2.4.1 / WHAT WE HEARD: ISSUES RAISED

Following analysis of the feedback as received from the stakeholders, the following common themes were identified:

Management of Quay Walls and Slips

Clear and Consolidated Approach

All stakeholder groups (categories) that lease dockwall space to berth their vessels, indicated that there is an (urgent) need for a clearer and consolidated management of the existing quay walls and slips. Most comments related to the current poor condition of many of the dockwalls and the lack of clarity as to who's responsible for needed repairs. This situation is not helped by the fact that it is often not clear to many of the stakeholders who the actual owner of the quay walls and slips is. As such, above referred management should focus on the following aspects:

- Ownership and leasing;
- Maintenance and repair;
- Receipt and review of 3rd party proposals;
- Balancing of uses;

Room for Non-Profit / Social Enterprises

Several stakeholders indicated that they support non-profit organizations with their activities on the water, either by hosting some of their events, providing specialist equipment such as lifts for people with disabilities or lending out dock space. It is felt that the City should play a larger role in this and ideally come up with a centralized approach how best to accommodate these groups, including ideas around (partially) subsidized accommodation.

Safety

Wayfinding

At present, there is no system in place that facilitates marine users to simply identify their location when on the water (particularly in the Inner Harbor). Many of the stakeholder groups, from active marine users to concerned residents have indicated that a lack of a wayfinding system hampers emergency response when someone has accidentally entered the water. Introducing such a system will undoubtedly contribute to a safe marine environment.

Ladders and Lifebuoys

Several stakeholders indicated the poor state of some of the safety ladders alongside the dockwalls. Some of them pointed out that during low water levels, one of the ladder types does not extend fully into the water, making it very hard for someone to actually climb out. A uniform approach (design guidelines) on how the application of this type of safety equipment (distance between ladders, type of ladders, number of buoys etc.) will further increase the safety along the waterfront.



Photo: Wikipedia/Portlands

Dockside Facilities

Transient Docking Facilities / Public Berthing Space

Various stakeholder groups, and in particular island residents, indicated that there is hardly any space where it is allowed to temporarily berth your own private vessel alongside the waterfront, despite large stretches of quay wall seemingly being available for this. This makes it difficult for boats from outside the harbor to stop and visit the waterfront or to pick-up/drop-off supplies, groceries, passengers, etc.

Universal Dock / Ramp

The tour and charter boat operators voiced their concern over the fact that at present there is no universal dock / ramp available that can be used in case of emergency response.



Photo: Albinger

Storage Space on the Waterfront

Stakeholders from the paddling and rowing category, as well as a number of residents, indicated that there is very limited storage space available to store a canoe or kayak. Unlike a paddle board, which people can easily transport, storing a canoe or kayak near the waterfront is necessary in order to use it frequently. The Hanlan Boat Club in the Outer Harbour recently completed the construction of their new boat house, and the success of this storage facility confirms this concern.

Boat Maintenance Facility

Boat owners (from people with private yachts to tour and charter boat operators) indicated that there are very few options to maintain your vessel in the vicinity of the Toronto Waterfront area. Most operators will therefore use facilities in London or Hamilton, for example.

Public Launches and Marina Space

Conversations with some of the larger yacht clubs indicated an increasing demand in docking facilities for privately owned boats (motorized as well as sailing vessels). This increased demand implies that more people want to be out on the water, which in turn explains the need for more public launches, which transpired from talking to various residents.

Access

Access to the Waterfront

Almost all of the stakeholder groups expressed their concern about the, sometimes poor, access to the waterfront. The exact nature of their accessibility concerns vary from insufficient public parking and limited transit options (daytime visitors, waterfront businesses that depend on 'tourism'), to delivery trucks (tour/ charter boat operators), traffic corridors (marine users in the Port Lands area), road/ bridge maintenance (recreational marine users) and at times personal safety (in more remote areas of the waterfront).

High Water Levels

This topic was raised as a concern by all stakeholder groups. It is clear that a majority of stakeholders were impacted in 2017 and more recently during the spring of 2019, as operations were hampered in a variety of ways (from flooded piers, terminals, buildings to electrical substations). While all stakeholders appreciated that these high-water levels are 'nobody's fault' and will be experienced more often going forward, it was the unpreparedness by the authorities to deal with the consequences that concerned them. It is therefore clear that any infrastructure assets built on or near the waterfront should take into account the effects of climate change and incorporate this in their designs.

Water Quality

Water Quality

Several stakeholder groups (which included conservation/preservation professionals, tour and charter boat operators and residents) emphasized the poor water quality in the Inner Harbour at times, especially following a major storm event. They also indicated that despite a number of good initiatives from the City to deal with sewage water treatment, there are still nine (9) sewage water outfalls in the project area that discharge into Lake Ontario. Monitoring data is available on how the water quality varies throughout the year. One of the stakeholders made it clear that to attract more people to the waterfront and to increase active use, which is one of the overarching objectives, good water quality is vital (to drink, swim and fish);

Creating an Attractive Waterfront

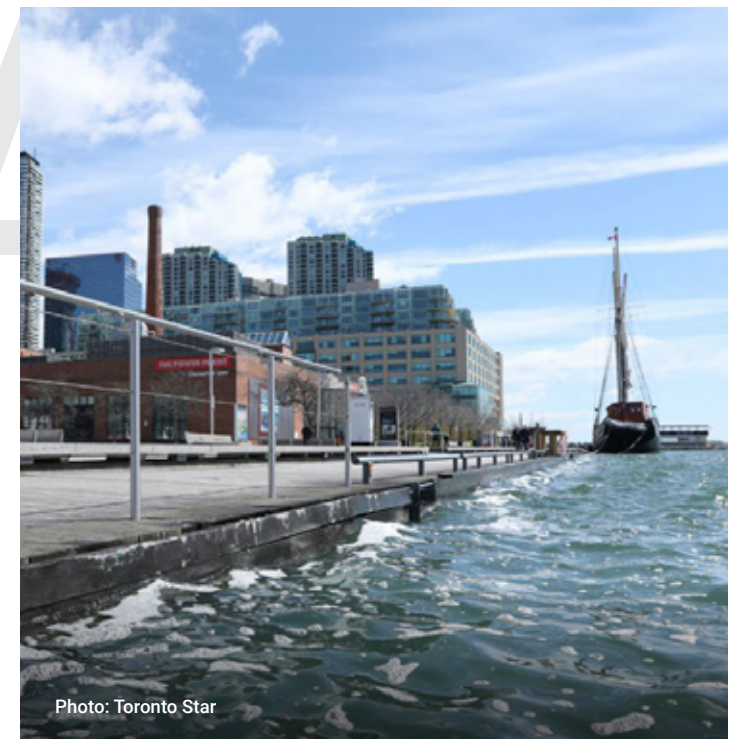


Photo: Toronto Star

Continuous Waterfront

Several stakeholder groups complimented WT on what has been achieved in terms of waterfront development over the past 10 to 15 years. At the same time, they indicated that while East Bayfront and the eastern waterfront precincts are still being developed, the various marine districts still remain disconnected, and that a more connected waterfront would benefit all users. This need for connectivity should evidently be taken into consideration going forward.

Open Year-Round

The majority of the stakeholder conversations focused on the 7-9 months per year that the Waterfront is actively used (April – November). Several stakeholder groups mentioned that to make the waterfront more attractive, it should be ‘open’ year-round. Apart from some form of winter programming, other ideas such as ice-skating rinks etc. should be investigated in more detail.

Market a True Waterfront Destination

Several stakeholder groups feel that the City of Toronto could do more to promote itself as a true waterfront destination. It is felt that all ingredients for this are available, such as waterfront promenades, a beautiful skyline, a natural park (the spit), islands and lagoons (as sailing destinations) as well as the nearby presence of an industrial port. These are great ‘selling points’ to attract visitors, active marine users and marine use related industry (tour/charter boats, cruise vessels), which can be further capitalized on. One of the stakeholders even introduced a potential tagline, with Toronto potentially being the ‘Fresh Water Capital of the World’.

Stakeholders also suggested that emphasizing the city’s maritime heritage could help in marketing Toronto as a true waterfront destination. Introducing Toronto’s maritime history could help educate people regarding the history of the city as well as increase their appreciation of the waterfront.

Balancing Industrial Uses

The waterfront area still houses, and will continue to house, a number of industrial users. These users at times feel under-valued, as the general public tends to view them as environmentally unfriendly, and causing problems with noise, smell and dust (depending on the type of industry). It is however important for the City and its residents to recognize the importance of these industries and to understand their value add. They create jobs, provide necessary materials for the construction industry as well as salt to counter wintery conditions, all delivered on the City’s doorstep. This all takes place through marine transportation, which is one of the most environmentally friendly modes of transportation. Letting a traditional port co-exist with nearby residents is however not unique and many other port cities such as Amsterdam, Valencia, Barcelona and Marseille have successfully managed this.



Photo: Newswire

2.5 / INDIGENOUS ENGAGEMENT

2.5.1 / BRIEF HISTORICAL CONTEXT

The physical conditions on the eastern and central portion of Toronto’s waterfront in the Inner and Outer Harbour have experienced 200 years of change. Much of the shorelines and former natural features consist of modern fill that was dredged, dumped and shaped since the early 1900s, with:

- A) most sections of the former Ashbridges Bay wetland area being infilled to form the Port Lands by the late 1960s, with new areas completed as recently as 2019
- B) new valleys being actively “carved” out of the fill areas of the Port Lands to form a new naturalized river mouth for the Don River
- C) continuing dredge disposal in Cell 3 at Tommy Thompson Park, and ongoing habitat creation works elsewhere in the Park; and
- D) ongoing modifications proposed for along the Central Waterfront between Parliament and Yonge Street.

The pre- and post-fill history of the area represents a succession of pre-contact Indigenous use followed by military occupation, town planning, and the extensive expansion of transportation networks, subsequent industrialization and later revitalization efforts led by Waterfront Toronto. Over time, the consequent changes to the landscape have been dramatic, including not only the southerly extension of waterfront lands, but also modifications to the flow of the Don River, burial and channelization of its tributaries, and alterations to other preexisting natural features such as sand spits, marshes and the peninsula that led to the present day Toronto Islands. (reference from: ASI Stage 1 Archaeological Report for the DMNP EA).

Between the fifteenth and seventeenth centuries, the Huron-Wendat Nation moved away from the shores of Lake Ontario to settle in the Georgian Bay area. By the mid seventeenth century, the Huron-Wendat were decimated by warfare with the Haudenosaunee, or the Iroquois League from south of the lake. In 1649, they were dispersed and scattered throughout Quebec, Kansas and New York. By 1650 the lands along the north shore of Lake Ontario were largely uninhabited and small groups of Seneca subsequently moved into the area ca.1660.

Anishinabek, who traditionally lived further north on the Canadian Shield, remained largely nomadic well into the Contact Period. This included the Mississauga people

who began moving south. Following an aggressive military campaign, the Mississauga drove the remaining Haudenosaunee south and established villages along the north shore of the lake in the Kawartha lakes region.

A smaller contingent of Mississauga moved west to form a large settlement at the mouth of the Credit River in the modern-day city of Mississauga where a French trading post was eventually established.

It was with these people that the British Crown sought to secure lands for British Loyalists. In 1787, The Toronto Purchase resulted in the surrender of Mississauga lands and included the Town of York (future City of Toronto) which was established in 1793. In 1805, the Purchase was revised to clarify the area of land included in the agreement and has been a source of dispute for over 200 years, until the Toronto Purchase Land Claim was resolved in 2010.

2.5.2 / TODAY’S CONDITION

Mississaugas of the Credit First Nation

Today, the Mississaugas of the Credit First Nation (MCFN) are recognized an Indigenous community within the meaning of the United Declaration on the Rights of Indigenous Peoples, and an Aboriginal people within the meaning of section 35 of the Constitution Act, 1982. As the Treaty holders in the region, which includes this study area, MCFN has been engaged as part of this study. We acknowledge MCFN’s responsibility to act as stewards of these lands, waters and resources. Indigenous Peoples hold a unique legal and constitutional position in Canada. The City has affirmed this unique position in its vision statement on Access, Equity and Diversity: “The City recognizes the unique status and cultural diversity of the Aboriginal communities and their right to self-determination.”

First Nations with Traditional Ties to the Toronto Waterfront

As indicated above, the Toronto waterfront has a complicated history of occupation and conquest by many Indigenous communities over the last 500+ years. As such, projects that propose modifications the physical structure of soils located below the current fill layers covering most of the Toronto waterfront need to be aware of the potential for heritage artifacts originating from these various Indigenous communities over the centuries, though most archaeologists consider that the likelihood of intact artefacts remaining in the area low, given the great level of disturbance over the last 200+ years.

Urban Indigenous Peoples in Toronto

Currently, it is also estimated that at least 70,000 Indigenous people from all across Canada, including Metis and Inuit, currently reside in the City of Toronto. Given the general importance of access to clean water, resources and water-based transportation shared by many Indigenous peoples, this study sought to receive input from the local Indigenous populations as well to inform the 2020 Marine Use Strategy.

Indigenous Heritage Observed in the Study Area

Overall, evidence of large-scale permanent communities has not been found on the downtown Central Waterfront, likely due to past lake-filling and city-building activities. However, evidence of some occupation has been noted (TRCA archaeology, May 15, 2020). Key locations were identified as follows:

- Ashbridges site – near the waterfront west of the Don River. Evidence of some occupation over a range of periods were observed (Archaic (8,000-800BC), Post-Contact (1620AD and onwards), Woodland (900BC-1550 AD)).
- Fort York – military site depicted evidence of Indigenous occupation pre- and post-contact periods.
- Remaining sites were likely seasonal camp sites or were indistinctive of use.

2.5.3 / ENGAGEMENT

Presentation to the Aboriginal Affairs Council (AAC), City of Toronto

Under the guidance of the Indigenous Affairs Office at City of Toronto, the project team also presented to the Aboriginal Affairs Advisory Committee on November 22, 2019. The presentation provided an overview of the Marine Use Strategy as an update to the existing 2006 study. Preliminary data on what was heard from stakeholders were presented, including an inventory of existing marine uses in Lake Ontario's Inner Harbour and next steps for the study, including further engagement with First Nations communities. Feedback from the committee included:

- Expand engagement to include Indigenous communities including urban groups and waterfront residents;
- Address the gap in engagement for waterfront projects; and
- Develop a strong strategy for the engagement, consider specific projects and employment opportunities for Indigenous communities on the waterfront.

MCFN Engagement

The project team met with the MCFN representative, Fawn Sault, Consultation Manager, Department of Consultation and Accommodation, and Hilary Harrison on February 13, 2020. Comments included the following:

- MCFN emphasized that before Waterfront Toronto or the City provide information on the area's history, that they are consulted. As Anishinaabe, the land in discussion is their treaty territory and they want to ensure that Waterfront Toronto and the City have the proper history.
- MCFN asked that when economic development opportunities evolve as a part of this plan, that we connect with MCFN and get in touch with their Sustainable Economic Development colleague.
- Regarding marine inventory and ownership, MCFN were curious if there are any laws or regulations in place that force people to maintain the areas (including dockwalls etc.) that they own. The project team explained that there are regulations, but in terms of dockwall ownership and maintenance, process and maintenance agreements are somewhat fragmented and being undertaken in a piecemeal fashion today. Some agreements in specific areas are clearer on who maintains a dockwall, while older agreements aren't as clear as they are grandfathered into new ownership and this causes issues with maintenance responsibilities. The strategy will address this management issues by suggesting a coordinated strategy and decision making on management of maintenance and repairs (refer also to Chapter 5 'Management' of this report).

2.5.4 / URBAN INDIGENOUS GROUPS

Under the guidance of Indigenous Affairs Office at City of Toronto, the project team also reached out to urban Indigenous groups in Toronto. Thus far, the project team has been able to meet with:

- Toronto Inuit Association - met with Sarabeth Holden, President on January 9, 2019.
- Toronto York Region Métis Council – met with Shirley Debassige, President, Gabrielle and Maryanne Bloor on January 27, 2019. This organization is also an associate member of the Toronto Aboriginal Support Services Council.

The project team presented an overview of the project, summary of key findings on the current inventory, and subsequently received feedback on challenges, opportunities, and aspirations regarding the project. From a marine use perspective, connection to land and water, and incorporating Indigenous traditions and activities as well as a place to gather (and celebrate) was important. Access to water, especially the shoreline where canoes can be launched onto the water was also key.

The project team also heard that there is a growing number of Indigenous groups moving to Toronto's downtown, but the majority of these groups may not be aware of some of the waterfront amenities that are available in the downtown area. The importance of education to help reduce barriers was discussed, as well engaging newcomers (to Toronto's downtown) on ongoing initiatives. In addition to this, providing educational opportunities on how to use kayaks and other non-motorized boats in the inner harbor was encouraged. Other feedback included:

- Placemaking: opportunities to highlight history, culture, stewardship (as related to shoreline and water);
- Opportunities for learning: skills and traditions in boating, fishing, shoreline medicinal planting;
- Employment and funding opportunities in water-related businesses on the waterfront;
- Access to open space and on-land facilities (e.g. gathering space for events and ceremonies, boat launches/ on-land storage);
- Representation or involvement in future studies, programs, working groups, committees, etc.;
- Indigenous businesses: canoe rental (access to seasonal on-land storage, canoe launch);
- Ice fishing business;
- Kayak/canoe share programs;
- Safety on water classes;
- Paddle boarding classes;
- "Circle of respect" – gathering spaces, fire pits;
- Partnership with Indigenous youth groups;
- Interpretative landscapes to reflect the history/heritage, allow for traditional gatherings and celebrations (usable public spaces for ceremonies and community events, native planting, and food/medicinal gardens, etc.) to integrate with design of public spaces and parks;
- Community events, festivals and celebrations on the waterfront.

2.5.5 / STEWARDSHIP AND CONTINUOUS ENGAGEMENT

The project team also met with Jennifer Franks, Lead, Indigenous Placemaking at the Indigenous Affairs Office at the City of Toronto on September 8, 2020. While Jennifer was pleased to see the engagement with Indigenous communities thus far, she encouraged greater engagement with other urban Indigenous groups including youth groups and other Indigenous groups who hold rights to this territory in addition to the MCFN. The project team will continue to consult with the MCFN and engage other interested First Nations with traditional ties to the area. In addition, the project team will reach out to other urban Indigenous groups within the City with an interest in marine use and navigation in the Toronto Inner Harbour throughout implementation of the recommendations.

2.6 / MOVEMENT, MOORING & MANAGEMENT

The Marine Use Strategy is a multi-faceted document. It is meant to be aspirational – to provide a roadmap to creating a more animated and accessible waterfront city - but also practical and remind us of the need to maintain what we have today. Whether dealing with our past, present, or future, the Marine Use Strategy is meant to improve the ways in which we make decisions - big and small - that shape and improve our relationship to Lake Ontario. Including diverse and representative stakeholder voices is an important element in the decision-making process for this report.

To ensure adequate representation for each of these overarching goals, the Marine Use Strategy's recommendations are divided into three key streams: Movement, Mooring and Management.

The **Movement** chapter is rooted in a principle of creating “more connections to more destinations”. This means not only making it easier to get people to the water's edge, but also on, in and over the water. In this chapter you will find ideas and recommendations related to:

- the creation of continuous waterfront connections;
- ideas for the expansion of water-based public transportation; and
- recommendations for improving ‘landside’ planning, development and public space decisions to provide more support for active marine uses.

The **Mooring** chapter is quite simply about boats. Where should boats of different sizes, needs and functions be located on our waterfront? Are certain mooring locations better suited to certain types of boats? And how do we support a growing interest in using all types of watercraft – from stand-up paddle boards, to kayaks and sailboats and cruise ships – as a means to enjoy all our waterfront has to offer. In the Mooring chapter you will find ideas and recommendations related to dockwall space; docking facilities; storage facilities; and the industrial port.

Finally, the **Management** chapter explores the question “who does what?”. Toronto's changing waterfront contains a number of moving parts, each managed by different partners. Numerous – and sometimes overlapping - jurisdictions, ownerships and legacy agreements, can often create confusion and delay even for seemingly simple maintenance decisions. The Management chapter is therefore a ‘call to action’. It is an acknowledgement that improvements and greater clarity are needed with respect to the decision-making process for uses and activities in the

water and along our shoreline; that these decisions ought to be made in a more consistent and transparent fashion; and that better co-ordination is needed when it comes to the state-of-good-repair investment in the infrastructure and assets that enable the public's use and safe enjoyment of the water.

RECOMMENDATION: FUTURE ENGAGEMENT WITH INDIGENOUS COMMUNITIES

Future engagement with Indigenous communities (throughout implementation phases) could take place through:

- MCFN and other First Nations groups to engage with Sustainable Economic Development Office for the actions where business opportunities could be identified;
- Other urban Indigenous groups through Toronto Aboriginal Support Services Council; and
- Indigenous residents on the waterfront (e.g. Indigenous Hub in the West Don Lands community).

The following three streams of work can be further refined through the implementation phases:

- Economic development: employment and support for Indigenous businesses (City of Toronto: Indigenous Affairs Office, Economic Development & Culture, Office of Partnerships; WT, Waterfront BIA and waterfront institutions and non-profit organizations such as Harbourfront Centre,, Artscape, George Brown College)
- Place making and programmable spaces, dedicated facilities (City of Toronto: Planning, Urban Design, Parks Forestry & Recreation; WT and other partners)
- Learning & education, youth programs (COT: PF&R, HFC and non-profits and institutions)





3

Movement

As mentioned earlier, this Movement chapter is rooted in a principle of creating “more connections to more destinations”. This means not only making it easier to get people to the water’s edge, but also on, in and over the water. In this chapter you will find ideas and recommendations related to:

- The creation of continuous waterfront connections;
- Ideas for the expansion of water-based public transportation; and
- Recommendations for improving ‘landside’ planning, development and public space decisions to provide more support for active marine uses.

3.1 / MOVEMENT: FROM LAND TO WATER

3.1.1 / WATERFRONT TRANSIT

Toronto’s waterfront is currently undergoing a significant transformation, with rapid growth in many precincts along the water’s edge including Mimico, Humber Bay Shores, Liberty Village, Fort York, King/Spadina, City Place, and South Core. Growth in several more precincts along the eastern waterfront is either underway or planned, including Lower Yonge, Keating, Port Lands, South of Eastern, East Bayfront, Quayside, and West Don Lands neighbourhoods. With this growth, a number of key recreational and cultural destinations have emerged along the waterfront.

WT is working with partners to make sustainable transportation choices easier and more convenient for

moving along and getting to the water’s edge. WT is currently collaborating with the City and the TTC to ensure that they coordinate local transit plans for the eastern waterfront with emerging transit plans for the wider region.

WT’s current focus is on planning the infrastructure needed to enable rapid transit service eastward along Queens Quay from Union Station. This work is part of a long-term plan to link the Queens Quay service to the streetcar route that currently serves Cherry Street in the West Don Lands and the future streetcar service into the Port Lands. WT will continue collaborating with partners to ensure that transit throughout the waterfront revitalization area is well aligned with the wider network of transit routes and the multi-modal transportation network.

The City of Toronto, in partnership with the Toronto Transit Commission and Waterfront Toronto, completed the Waterfront Transit “Reset” study, including a comprehensive assessment of needs and options for transit improvements for the waterfront area. The study defined the primary east-west waterfront transit corridor as a component of a connected transit and multi-modal system that supports significant growth areas, the greatest concentration of cultural, recreational and special events in the City, and also provides flexibility and network resilience.

This study resulted in the Waterfront Transit Network Plan, which was endorsed in early 2018 by City Council. The recommended direction for transit infrastructure improvements that form part of the Waterfront Transit Network Plan is summarized schematically in Figure 3.1.

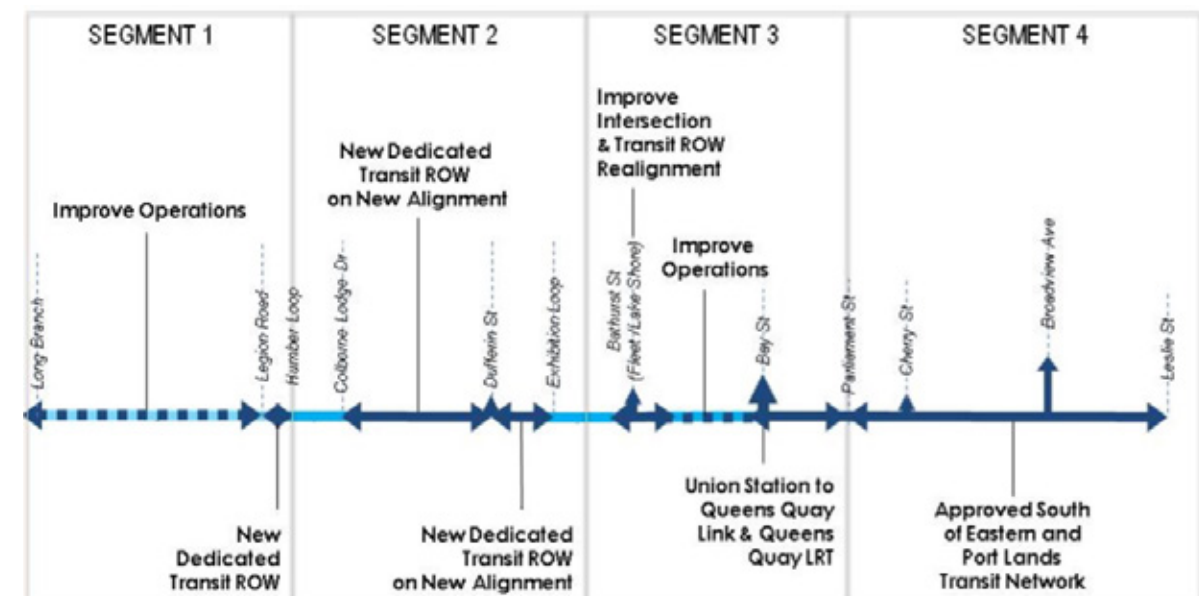




FIGURE 3.1 – WATERFRONT TRANSIT NETWORK PLAN

In 2020/2021 WT plans to complete preliminary design and engineering for surface works on Queens Quay East between Bay Street and Parliament Street. “Surface Works” include the streets, bike paths, sidewalks, landscaping and all other aspects of the public realm. In addition to these “Surface Works”, 2020/2021 will furthermore see activities such as updating street and landscape designs, establishing the infrastructure design requirements for transit, and assessing costs and implementation issues with the delivery of various design choices and construction approaches.

3.1.2 / WATERFRONT TRAILS AND PROMENADES

As described in Waterfront Toronto’s Rolling 5-year Strategic Plan (2019/20 – 2023/24), providing safe and easy access to the shores of Lake Ontario is a key part of developing the waterfront. To date, over 13 kilometres of trails and promenades in key areas of the waterfront have been created. In addition, a range of parks and public spaces that facilitate active transportation and make it more fun for people to move through the city toward the water, have either already been realized or do form part of larger development plans.

Every public space that is being created or redeveloped is accessible according to the Access for Ontarians with Disabilities Act (AODA). This includes recreational trails and beach access routes, outdoor eating areas, outdoor play spaces, parking areas, service counters and other amenities.

In addition to making the water’s edge more accessible to everyone, there is a strong focus to ensure that new waterfront neighbourhoods are connected to the fabric of the city—with roads, transit service and active transportation routes. These links support the success of local businesses, make the waterfront a better place to live and help realize the vision of one connected waterfront that belongs to everyone.



The following are some prime examples of WT’s efforts to provide safe and easy access to the shores of Lake Ontario (refer also Figure 3.2):

- WT partnered with the City of Toronto to deliver The Bentway. In addition to providing new recreational space under the Gardiner Expressway, this linear park makes it easier and more pleasant to get to and from the lake on foot or by bike.
- The Queens Quay streetcar line is a key transit link to and across the waterfront. WT partnered actively with the City of Toronto, the TTC, and others to plan for intensified transit connectivity along the Lake. Some new routes are already active, and bigger changes, like the East Harbour Transit Hub, are coming.

- The Outer Harbour Recreational Node, created in 2015, is a thoughtfully constructed outcropping that offers an accessible space for fishing, birdwatching and simply enjoying nature.
- This Recreational Node was connected to the Martin Goodman Trail, and shoreline improvements were made to offer better habitat for fish, amphibians and native plants. The Martin Goodman Trail, which runs parallel to this stretch of Queens Quay, is a favourite route for cyclists and joggers. Waterfront Toronto has added more than 5,800 linear metres to the trail (refer Figure 3.3).



FIGURE 3.2 – ACCESS TO THE WATERFRONT



FIGURE 3.3 – MARTIN GOODMAN TRAIL

3.2 / MOVEMENT: ONTO THE WATER

To connect waterfront residents and visitors with Lake Ontario, a large number of initiatives has been implemented and planned for development. These initiatives range from organizing events, developing parks to construction of infrastructure assets, and focus on how to get people onto the water.

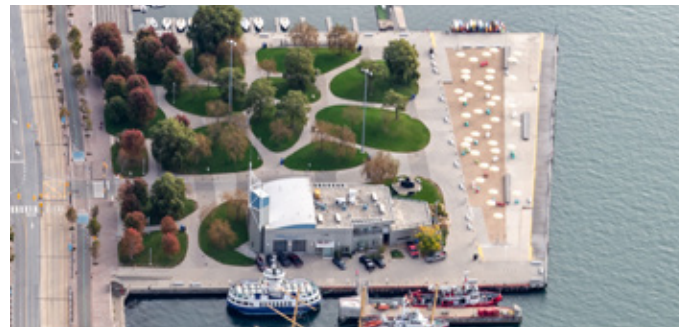
Waterfront Parks: A total of 43ha of new parks and public spaces has been realized by WT on the waterfront. The creation of for example Sugar Beach and HTO Park has allowed for people to enjoy the water's edge of Lake Ontario in a passive manner.

Waterfront Walk: WT has added 26km of walkable routes by the Lake. The popular Simcoe (and Spadina) WaveDecks enhance the streetscape and, underwater, they also provide carefully designed fish habitat, which has increased the number of fish and range of species in the area, with at least one endangered species been spotted in the harbour.

Waterfront View Corridors: The Downtown Plan is a 25-year vision that sets the direction for the city centre as the cultural, civic, retail and economic heart of Toronto and as a great place to live. A series of goals – grouped around the themes of complete communities, connectivity, prosperity, resiliency and responsibility – establish outcomes the Downtown Plan intends to achieve as growth continues. Several of the policy directions formulated in the Downtown Plan contribute to maintaining view corridors towards the waterfront.

Waterfront Events: Throughout the summer months, a variety of festivals are organized on the waterfront, of which the annual Tall Ship Festival has a unique maritime character that attracts boat lovers from across the continent. Crucial in being able to organize this festival is the waterfront's capability to host a large variety of different tall ships. This implies the need for sufficient and suitable dockwall space, equipped with necessary mooring equipment such as bollards and at times fenders.

Waterfront Recreation: The waterfront welcomes a large number of visitors than want to be active on the water through activities such as yachting, sailing, canoeing / kayaking and paddle boarding. At present, the waterfront only offers a limited amount of 'launch facilities' in this regard. Following the development of Villiers Island and the Mouth of the Don River, this need will be better addressed.



3.3 / MOVEMENT: OVER THE WATER

This section provides an overview of the movements over the water in the project area. It discusses the existing and possible types of public marine transportation, as well as the existing and potential origin and destination points (i.e. the Marine Nodes) associated with this type of transportation.

At various places in the text, Recommendations are formulated that can be taken forward as actionable items. Each of the recommendations has a clear objective, a described action and a listing of the various parties (i.e. working group members) that should be involved.

An overview of all the Recommendations made in light of this study has been included in the summary in **Section 6**.

3.3.1 / EXISTING PUBLIC MARINE TRANSPORTATION

Today, three types of public marine transportation exist on the Toronto Waterfront:

- The island ferries, operated by the City and used by tourists and island residents. These ferries depart from the Jack Layton Ferry terminal and sail to three different destinations on the Toronto Islands;
- The airport ferry, operated by Ports Toronto and used by travelers and airport staff. This ferry departs from the foot of Bathurst Street and sails straight across the Western Channel;
- The water taxis, operated by 7 different companies and used by tourist and island residents. These water taxis depart from 4 different locations on the Waterfront and sail to 6 different locations on the Toronto Islands. Each water taxi company has its own base location on the waterfront and is not allowed to dock at any of the other locations.

Waterfront Toronto however is currently running a 3-year pilot to operate a more centralized and 'multi-user' location for water taxis in Yonge Street Slip. The pilot has been underway for two years and a variety of data is being collected to measure the success of the pilot upon completion.

In addition to transporting people, both the City as well as PortsToronto provide ferry services for vehicles. The city 'vehicular' ferry (the 'Ongiara') departs from the Jack Layton Ferry Terminal and sails to Hanlan's Point. PortsToronto uses the airport ferry described above to transfer both people and vehicles.

Figure 3.4 indicates the existing origin and destination points (Marine Nodes) of both the ferry services as well as the water taxis. From this map it is clear that existing traffic is mainly North-South from the Jack Layton Ferry Terminal to the Toronto Islands. For ease of reference, we have numbered these Marine Nodes as follows:

FERRIES
F1 = Jack Layton Ferry Terminal
F2 = Hanlan's Point Ferry Dock
F3 = Centre Island Ferry Dock
F4 = Ward's Island Ferry Dock
F5 = Bathurst Street
F6 = Billy Bishop

WATER TAXIS
W1 = Spadina Street Slip
W2 = Peter Street Slip
W3 = York Street Slip
W4 = Yonge Street Slip
W5 = Hanlan's Point
W6 = Centre Island Regatta Grand Stand
W7 = Toronto Island Marina
W8 = St. Andrew's by the Lake Church
W9 = Algonquin Island
W10 = Ward's Island

3.3.2 / FUTURE PUBLIC MARINE TRANSPORTATION

When looking at the future of potential public marine transportation on the Toronto waterfront, the following can be considered:

- Water taxis: The use of water taxis has seen a modest increase over time, a trend which is expected to continue in the foreseeable future, especially if additional stops (Marine Nodes) can be added to their current routes.
- Toronto island ferries; The Toronto island ferries have been in operation for over a century, and while the passenger numbers have fluctuated since the mid 1990's, recent years show an increase. The ferries mainly serve Torontonians, island residents and tourists and passenger numbers are expected to increase in the foreseeable future.
- Commuter ferries: Commuter ferry services in other waterfront cities typically consist of either one of three models;



FIGURE 3.4 – EXISTING WATER-BASED TRANSPORTATION

- Traditional ferry service, consisting of shorter routes with two or three stops either in a simple river crossing or triangular three-point stop configuration, often developed in absence of a land-based transport connection (e.g. Copenhagen, Denmark).
- Linear ferry services, where vessels traverse along a river or a body of water stopping at multiple destinations connecting points of interest along a waterfront (e.g. Gothenburg, Sweden);
- Ferry services that connect suburbs with the inner-city area (e.g. Stockholm, Sweden);

For Toronto, one could consider the latter type of services for commuters coming in from e.g. Humber Bay and travelling downtown. It is however questionable whether such service would be economically viable, as alternative modes of public transport (following the same route) already exist on land, such as VIA Rail and GoTrain.

- Airport ferry. This ferry runs every 15 minutes and transports travellers to and from Billy Bishop Airport. In addition to passengers, this ferry also transports vehicles. Travellers can also make use of the tunnel under the Western Channel to get to the airport. Passenger numbers for this service are not expected to increase.

- Permitted vehicle ferry. This idea originates from successful barge ferry operations for the Billy Bishop airfield reconstruction program in 2016 and 2017. At the time, a temporary dock was constructed at the airport as well as at 8 Unwin Avenue (current cruise terminal) and construction material and equipment were ferried across to the island.

A similar type of operation, focused on ferrying (permitted) vehicles to and from the Toronto Islands would replace the existing services from Jack Layton Ferry Terminal (in full) and from Bathurst Quay (in part). As a result, it would eliminate a lot of traffic near the existing ferry terminal and divert some (but not all) traffic on Eireann Quay. To further facilitate this, a new permanent dock/cut-in slip inside the Ship Channel would be preferred. At Hanlan's Point, the existing dock will need some modifications to receive this type of vehicular ferry.

The City and PortsToronto have discussed this idea in the past, and as part of the City's Ferry Fleet Replacement initiative, had some preliminary study work done into the practical and financial feasibility of implementing a 'permitted vehicle ferry', the high-level outcome of which is summarized below.



PORTSTORONTO FERRIES

- At present, PT ferries the following number of vehicles from Eireann Quay to Billy Bishop Island:

VEHICLE TYPE	2016	2017	2018	2019	2020 (JAN_FEB)*
Large (>9m)	1,074	571	869	648	53
Medium (5.5-9m)					52
Small (<5.5m)					4

* Since December 2019, Stolport took over the ferry operations

- A rationalized vehicle ferry services could potentially divert certain airport vehicular traffic from Eireann Quay, thereby reducing local congestion. Traffic that can be diverted this way would be vehicles typically needing access to the Southern limit of the airport, which would include airport fuel deliveries and City vehicles that, due to their size, are currently not able to use the Ongiara;
- The successful barge ferry operation model could potentially be used to transition airport vehicular traffic to Cherry Street, where a new permanent dock (cut-in slip) inside the Ship Channel (close to the RCYC tender) would be required;
- Destination point for the vehicular ferry would be Hanlan Point, where the current dock will need some modifications to receive this type of vessel;
- If PT were to assume responsibility for vehicles, it would remove the operational risk that the unavailability of the Ongiara would impact runway operations;
- PT recommends a new purpose-built ferry, possibly with ice-breaking capabilities, for this operation;

CITY FERRIES

- At present, the City ferries the following number of vehicles from Jack Layton Ferry Terminal to Hanlan's Point:

VEHICLE TYPE	PROJECT VEHICLES ANNUALLY (2020)	PROJECTED VEHICLES ANNUALLY (2032)
Tow / trailer	672	830

RECOMMENDATION: PERMITTED VEHICLE FERRY

Working Group Members: City, PortsToronto, WT

Action: Both the City as well as PortsToronto recognized the value in introducing a consolidated and dedicated vehicular ferry service. Financial considerations have halted earlier conversations between parties, however it is recommended that communication on this topic re-commences.

Objective: Re-evaluate the practical and financial feasibility of this concept, review financing options and develop an implementation timeline

3.3.3 / TYPES OF PUBLIC MARINE TRANSPORTATION

In developing a more elaborate public marine transportation network, the following different modes of operation can be considered:

- Expanding the city ferry routes. This would imply adding additional destination points for the ferries currently leaving from the Jack Layton Ferry Terminal. It is however questionable whether the new destination points would have a similar passenger demand as the Toronto Islands and as such whether these ferries would not be too large. In addition, the investment required to construct a receiving facility (ferry dock) sufficiently sheltered and with a navigable approach for the existing ferries may prove economically not feasible.
- Expanding the water taxi drop-off / pick-up locations. This would require investment in suitable mooring facilities for the water taxis, but certainly for the near term could prove a viable option. What would be lacking though is a coordinated and scheduled service to have people move over the water in the waterfront area.
- Develop a system of sea buses, which would essentially be small passenger vessels sailing a fixed route on scheduled times (similar to a 'normal' bus service). Where possible,

connectivity with onshore transit needs to be created to realize an integrated public transportation system from land onto the water and vice versa. These sea buses can be developed using the latest green technologies (electric, solar powered, hydrogen fuelled), to reduce their carbon footprint as much as possible. This type of (environmentally friendly) public marine transport has been successfully implemented in Stockholm and Sweden, through their Green City Ferry system.

3.3.4 / FUTURE MARINE NODES

Marine Use Strategy identifies upcoming locations along the waterfront which could be connected to a broader (public) marine transportation network. These locations are called 'Marine Nodes', indicated in **Figure 3.5** and the rationale behind each of them is described hereunder.

These locations are contemplated as potential nodes, and exact locations will have to be further reviewed with regards to onshore access, space allocation, navigational issues, safety etc. In addition to the already existing Marine Nodes, that indicate the mainly north-south movements on the water, these additional nodes will facilitate travelling in an east-west direction.

MARINE NODE – DEFINITION

Existing and upcoming locations along the waterfront which can either be developed as a 'stand-alone' destination and/or could be connected to a broader, yet to be developed, (public) marine transportation network.

Developing Marine Nodes located in (future) urban areas should consider close proximity of existing or future planned onshore transit.

Developing Marine Nodes located outside the Inner Harbour should consider the type of vessel capable of safely sailing to these locations

RECOMMENDATION: COMMON WATER TAXI DOCK SYSTEM

Working Group Members: WT, PortsToronto, City, Police Marine Unit

Action: Carry out an intermediate review of the ongoing WT pilot for a common user dock for water taxis across the waterfront and start drafting the outlines of a water taxi strategy study, that can be launched in full upon completion of the pilot in one-year time.

- Objective:** objectives of this study would be:
- Evaluate the success of the pilot and define the viability of common user docks across the waterfront rather than a fixed base for the use of water taxis;
 - Evaluate the proposed marine nodes as potential water taxi stop (passenger demand, infrastructure requirements);
 - Evaluate the appetite amongst operators for more tabled (scheduled) sailing.

RECOMMENDATION: SEA BUS SYSTEM

Working Group Members: WT, PortsToronto, City

Action: Launch a feasibility study for the introduction of a sea bus system on the waterfront.

- Objective:** objectives of this study would be to:
- Project passenger numbers for each of the proposed marine nodes;
 - Research vessel types, with emphasis on 'green' technology;
 - Research operating models;
 - Develop high level business case into viability (capex and opex versus potential revenue).





FIGURE 3.5 – FUTURE POTENTIAL WATER-BASED TRANSPORTATION

PERMITTED VEHICLE FERRY	RATIONALE
V1 – Option1 = Ship Channel Berth 511	<ul style="list-style-type: none"> • Diverting traffic away from busy downtown streets such as Queens Quay and Eireann Quay • Location inside Ship Channel is well protected against incoming waves (as opposed to e.g. Berth 521) • Location inside Ship Channel west of Cherry Street bridge, to prevent bridge opening / closing
V1 – Option 2 = Eastern Gap Berth 521	<ul style="list-style-type: none"> • Location in Eastern Gap is former Rochester Ferry Berth
V2 = Hanlan’s Point Ferry Dock	<ul style="list-style-type: none"> • Berthing infrastructure already present (although modifications will be required) • Close to airport, preventing vehicular traffic over the Toronto Islands

PASSENGERS	RATIONALE
M1 = Ontario Place	<ul style="list-style-type: none"> • Transit to Ontario Place Marina • Potential tourist destination • Potential commuter transit
M2 = Portland Street Slip	<ul style="list-style-type: none"> • Transit to Billy Bishop Airport
M3 = Corner Parliament Street Slip / Keating Channel	<ul style="list-style-type: none"> • New upcoming neighborhood and tourist destination on the Toronto waterfront • Access to Promontory Park (via new walkway bridge over Keating Channel) • If not inside Parliament Street Slip, the mooring location will be exposed and present berthing challenges
M4 = Keating Channel East	<ul style="list-style-type: none"> • New upcoming neighborhood and tourist destination on the Toronto waterfront • Will present restrictions due to air draft limitations of new Cherry Street bridge
M5 = Canoe Cove	<ul style="list-style-type: none"> • Recreation destination • Access to Promontory Park
M6 = Cherry Beach (recreation)	<ul style="list-style-type: none"> • Recreation destination • May present safety challenge due to presence of swimmers
M7 = Outer Harbour Sail & Rowing Clubs	<ul style="list-style-type: none"> • Transit for club members
M8 = Outer Harbour Marina	<ul style="list-style-type: none"> • Transit for club members
M9 = The Spit	<ul style="list-style-type: none"> • Recreation destination
M10 = Ward’s Island Beach	<ul style="list-style-type: none"> • Tourist and recreation destination • Will present navigable challenges as this is an exposed location, which will require significant infrastructure investment to make it a ‘receiving facility’
M11 = Manitou Beach	<ul style="list-style-type: none"> • Tourist and recreation destination • Will present navigable challenges as this is an exposed location, which will require significant infrastructure investment to make it a ‘receiving facility’

RECOMMENDATION – MARINE NODES

Based on outcome of studies into Common Water Taxi Dock System and Sea Bus System, start developing Marine Nodes (infrastructure requirements for landing system), rather than identify dedicated new routes

Potential modes of operations to / from these Marine Nodes

- Expanding the city ferry routes;
- Expanding the water taxi drop-off / pick-up locations;
- Develop a system of sea buses;
- Introduce vehicular ferry / permitted vehicle ferry.

3.4 / MOVEMENT: CONSIDERATIONS

In addition to the above described Recommendations, the study uncovered a large number of valuable ideas and insights that could not be addressed as part of the recommendations, but are worth capturing and potentially following up on in the future during the implementation phases. These items have been categorized into Considerations.

This section briefly summarizes the Movement Considerations, which have also been included in the Considerations Summary in Chapter 6.

3.4.1 / NAVIGATION CONDITIONS

Just over half of the proposed Marine Nodes for marine public (passenger) transportation (M1, M6-M11) are located outside the Inner Harbour. In this regard, it is important to emphasize that navigation conditions South of the Eastern Gap as well as West of the Western Channel can be challenging. Both these areas are exposed to incoming waves (often reflected off, and as such amplified, due to the presence of vertical wall structures), tend to be choppy and can be difficult for smaller vessels such as the water taxis.

Developing these new Marine Nodes should therefore be considered in conjunction with the type of vessel capable of safely sailing to these locations.

3.4.2 / CONNECTIVITY TO ONSHORE TRANSIT

For Marine Nodes M1-M5 it is important that they are in close proximity of existing or future planned onshore transit. If this onshore transit is not available (on a regular basis) within walking distance, passengers coming off the water are likely to take some form of private transport (taxi, uber) to leave the waterfront. This can lead to further congestion of the already busy downtown area.

3.4.3 / ICE BREAKING IN THE INNER HARBOUR

At present, three different organizations are responsible for ice breaking within the Inner Harbour: PortsToronto, the City of Toronto, and the Marine Police Unit. Each organization looks after a different area within the inner and outer harbour and as such, serves different needs. In reviewing future potential water-based transportation and Marine Nodes which will facilitate different types of public marine transportation, the feasibility of year-round operations should be investigated.

3.4.4 / INDUSTRIAL SHIPPING

As part of the waterfront revitalization, it is important to recognize the importance of industrial shipping in the Port by:

- Considering the growing demand for (lake) shipping (low carbon transportation).;
- Coordinating vessel movements to avoid conflict and minimize operational interruptions; and



4

Mooring



This Mooring chapter is quite simply about boats: Where should boats of different sizes, needs and functions be located on our waterfront? Are certain mooring locations better suited to certain types of boats? And how do we support a growing interest in using all types of watercraft – from stand-up paddle boards, to kayaks and sailboats and cruise ships – as a means to enjoy all our waterfront has to offer?

In this chapter you will find ideas and recommendations related to dockwall space; docking facilities; storage facilities; and the industrial port.

4.1 / CURRENT MOORING ON THE WATERFRONT

Figure 4.1 below provides an overview of the current mooring arrangements on the Toronto waterfront within the key focus area. As can be seen from this figure, most locations present a mix of tour / charter boats, water taxis and the ferry, with two areas being distinctly different and industrial focused (i.e. Jarvis Street Slip and the Ship Channel).

A further distinction is made between vessels that are permanently moored on the waterfront, such as the tour / charter boats, water taxis and ferries and vessels that are visiting with varying, but increasing, frequencies, such as industrial and cruise vessels, tall ships and navy vessels.

Overall, the current arrangement presents a rather ‘full’ waterfront from an available berth perspective. However, with a projected increase of all marine uses (apart from industrial, which is expected to remain constant) there is an apparent shortage of dockwall length, marina slips and waterfront access for recreational uses going forward.

In addition, some of these growing marine uses, in combination with changing land use and development patterns, may require existing users to be relocated, such as in Parliament Street Slip and on Villiers Island.

Sections 4.2 - 4.4 provide more detail on each of the waterfront stretches within the focus area, further highlighting current marine use as well as the potential they offer for future uses.

4.2 / NEAR TERM MOORING NEEDS & OPTIONS

4.2.1 / PARLIAMENT STREET SLIP

Parliament Street Slip and the neighbouring areas will undergo a complete transformation over the next 3-5 years. A variety of plans are being developed for the future marine use of Parliament Street Slip, all of which would require (at least temporary) relocation of its current users, i.e. 5 tour / charter boats, which are owned and operated by three different companies.

The current waterfront configuration only offers a limited amount of options in this regard and it is strongly recommended that City, PortsToronto and Waterfront Toronto work together with the three owners / operators to facilitate these relocations.

RECOMMENDATION: COORDINATING MOORING ON THE WATERFRONT

Task Force Members: WT, PortsToronto, City, CreateTO, HFC and other potential agencies on the waterfront

Action: Take leadership in facilitation and coordination of mooring issues across the waterfront, of which the Parliament Street Slip is one (immediate) case

Objective: Engage with the owners/operators and to:

- Help coordinate mooring issues across the waterfront, of which the Parliament Street Slip is one (immediate) case;
- Understand their business model and actual needs (requirement to be on the waterfront or not);
- Discuss potential short-term options for relocation (e.g. Berths 367 and 368 in the Ship Channel)
- Look at a full list of assets, identify requirements for ships and identify spaces and opportunities across the waterfront



LEGEND

Vessel Type	Length	Status	Mooring Zone
Ferry	± 40m	Permanent	Ferry Terminal
Tour / Charter Boat	± 30m	Permanent	Finger Pier / Slip
Water Taxi's	± 10m	Permanent	Slip
Industrial Vessel	± 25 - 175m	Permanent	Dockwall
Private Vessel	± 10 - 30m	Permanent	Dockwall / Finger Pier / Slip
Tall Ship Tour / Charter	± 50m	Permanent	Dockwall / Finger Pier / Slip
Red Path Vessel	± 180 - 235m	Visiting	Dockwall / Slip
Navy Vessel	± 165m	Visiting	Dockwall / Slip

- 1 Central Waterfront**
 Obsession II (Tour)
 Challenge (Tallship Tour)
 Serendipity Princess (Tour)
 Ste. Marie (Tour)
 Kajama (Tallship)
 Oriole (Tour)
 Showboat Royal Grace (Tour)
 Northern Spirit I (Tour)
 Perfect Alibi (Private)

- 5 Jarvis Street Slip**
 Redpath Lakers (Industry)
 Redpath Self Uploading Vessels (Industry)
 Frigate (Navy Vessel)

- 2 York Street Slip**
 Toronto Harbour Water Taxi
 Aqua Bus Water Taxi
 Captain Matthew Flanders (Tour)
 Rosemary (Tour)
 New Beginnings (Tour)
 Shipsands (Tour)
 Empress of Canada (Tour)

- 6 Parliament Street Slip**
 Pioneer Queen (Tour)
 Pioneer Princess (Tour)
 Stella Borealis (Tour)
 River Gambler (Tour)
 Aurora Borealis (Tour)

- 3 Ferry Terminal**
 Trillium (Ferry)
 Thomas Rennie (Ferry)
 William Inglis (Ferry)
 Ongiara (Freight/VehicleFerry)
 Ned Hanlon II (Industry)

- 7 South Slip**
 Enterprise 2000 (Tour)
 Toronto Drydock - Mooring (Industry)

- 4 Yonge Street Slip**
 Otter Guy Water Taxi
 Infinity Water Taxi
 New Water Taxi

- 8 Ship Channel**
 Toronto Drydock - Mooring (Industry)
 Rideau Bulk Salt Lakes (Industry)
 Toronto Brigantine - Winter Berthing (Tour)
 Hurricane Canvas (Industry)
 RCYC Land & City Station (Private)
 Galcon Marine Barges & Tugs (Industry)
 (Break) Bulk Carriers - Winter Berthing (Industry)
 Redpath Vessels - Winter Storage (Industry)

FIGURE 4.1 – EXISTING MOORING ARRANGEMENTS WITHIN THE PRIMARY FOCUS AREA

4.2.2 / WINTER LAY-UP

Part of the Ports revenue is generated by industrial vessels tying up for the winter, the so-called winter lay-up on the berths in the Port Lands area. Income is generated for both PortsToronto (who own the water lots) as well as CreateTO (who own the dockwalls).

CreateTO (previously TPLC) maintains a list of all available dockwall space within the Port Lands area and based on the requests for winter lay-up as received by PT, dockwall space is allocated on a priority basis.

Due to the development of Villiers Island, dockwall space for commercial vessels (that need adequate electrical power) has reduced over time and will continue to diminish over time.

4.2.3 / TEMPORARY MOORING

Feedback received during stakeholder interviews as well as during public intercepts indicated that there is a strong desire amongst the boating community to have a temporary/short-term mooring facility (kiss 'n ride) in the Inner Harbour. This facility would allow private boat operators to pick-up / drop-off passengers at a dedicated slip, something which is at present not permitted.

To avoid abuse and to successfully implement this concept, it is felt that a temporary mooring facility needs to be 'tested' through a pilot project, to understand operations and management-related opportunities and challenges.

RECOMMENDATION: TRANSIENT MOORING FACILITY (KISS & SAIL)

Working Group Members: WT, PortsToronto, City, CreateTO

Action: Launch a pilot project to test a temporary mooring facility.

Objective: This pilot will aim to define:

- Location parameters for permanent implementation;
- Mooring window, flexible or fixed (e.g. minimum of 10 minutes, maximum 20, or fixed 15 minutes);
- Need for pre-booking;
- A tariff structure with increased rates for over-staying (penalty system);
- Options for payment;
- Minimum staffing requirements to manage the facility;
- Ownership of operation and management structure.

4.3 / LONG TERM MOORING NEEDS

4.3.1 / TOUR / CHARTER BOATS

As also mentioned in Section 2.2, the tour and charter boat industry have a potential to grow. This potential is based on Greater Toronto Area (GTA) population and tourism growth, and it is felt that the relative stability in the number of tour / charter boats over the past 15 years has not matched the significant growth in tourism in Toronto. In addition, over time, there has been an increase in the number of requests the City has received from potential tour / charter boat operators, many of which have had to delay expansion plans due to the lack of available mooring space on the waterfront.

However, rather than to simply plan additional berth space in the Inner Harbour to accommodate a potential growth in the tour/charter boat industry, two more fundamental questions need to be considered:

- Should the city maintain a maximum of the amount of tour / charter boats they allow to operate on the waterfront? This maximum number can be driven by (a) safety considerations, i.e. - the Inner Harbour is already very crowded, how many more (relatively large) vessels can it accommodate, and (b) safeguarding a balanced use of the waterfront, i.e. - will an unlimited amount of tour / charter boats negatively impact other marine uses on the waterfront; and
- Do all the tour / charter boats need to be located right downtown or are some of them better off located out of the downtown area? For Toronto, a distinction can be made between (a) tour / charter boats that combine 'daily passenger pick-up' and charters booked in advance and (b) tour / charter boats that solely do charters



Photo: Toronto Harbour Tours

(booked in advance). The infrastructure requirements for each of these groups (and hence the location) seem distinctly different;

- The first group requires to be 'downtown, on the waterfront' where a lot of daily visitors may decide to take a short cruise;
- The second group requires to have sufficient parking space and access to public transport, not necessarily 'downtown'.

Other waterfront cities around the globe often maintain a system where the tour / charter boats receive services and berth overnight in areas away from the downtown city center, with dedicated and/or common users berths they can use during the day to pick up and drop off passengers.

RECOMMENDATION: TOUR / CHARTER BOATS

Working Group Members: WT, PortsToronto, City

Action: Determine how to deal with the tour / charter boat industry on the Toronto waterfront.

Objective: objectives of this working group would be to:

- Decide if a maximum number of operating licenses for tour / charter boats needs to be introduced on the waterfront, and if so, what this maximum number is;
- Define uniform minimum requirements for tour / charter boats operating on the waterfront;
- Draft a process around the licensing system that identifies (a) lease agreements, (b) regulations around suppliers, (c) regulations around operating hours, (d) regulations around environmental issues (including noise);
- Investigate what percentage of existing and potential future tour / charter boat operators would prefer a mooring location remote from the downtown waterfront area.



4.3.2 / MARINA SLIPS

From Ontario Place to the Outer Harbour, the Toronto waterfront is home to 14 marinas and yacht clubs as well as 7 smaller sailing and rowing clubs. A survey amongst these organizations done in June of 2020, learned that:

- Almost all of them maintain a waiting list for wet berths (marina slip), which was typically between 1-2 years;
- Only the Outer Harbour Marina still has space available, with occupancy rates of 85-90%. This corresponds with some 60-90 slips being available;
- Most of the existing slips measure between 25-40ft;
- The highest demand for slips is for boats smaller than 25ft and larger than 45ft;
- Out of the available slips, only 5% is reserved for transient docking;

With the above in mind, it is clear there is a shortage of marina slips directly on the downtown waterfront. However, whether that shortage is best addressed by creating additional slips directly on the waterfront (e.g. in Parliament Street Slip) or through absorbing existing (and potentially expand) capacity elsewhere should be subject to further study.

RECOMMENDATION: MARINA SLIPS

Working Group Members: WT, PortsToronto, City

Action: Launch a feasibility study to advise on the best option to increase marina slip capacity on the waterfront by identifying and comparing the following expansion options: (a) Parliament Street Slip, (b) Outer Harbour Marina, (c) Other marinas & yacht clubs on the waterfront, (d) Other.

Objective: This study should focus on both the short term (immediate) needs as well as long term projections for marina slip requirements.

Evaluation aspects would include (but not be limited to):

- Capital and operational costs;
- Connectivity (land and marine based transit options / requirements);
- Potential for receiving large vessels;
- Accessibility (parking);
- Potential for winter storage;
- Potential for vessel maintenance;
- Potential to facilitate disabled sailing and other community involvement.

4.3.3 / CANOE / KAYAK

Similar as for sailing, with an increase of waterfront revitalization, participation rate and population growth, the amount of small boat recreational users (i.e. people canoeing and kayaking) is expected to increase over time.

Accommodating this growth directly on the waterfront is only possible to a certain extent, however with the development of the nearby Villiers Island, ample opportunities are already being created to meet this demand.

Apart from creating actual access to the waterfront for this type of recreational use, the following should be accounted for during the planning of these facilities:

- The access points should be located near to a road as to provide vehicular access (either private or public);
- The access points should be located near to public transport (for marine users that store their canoe or kayak near the waterfront);
- The access points should provide ample parking space for cars and trailers (for marine users that bring their canoe or kayak);
- The access points should provide onshore storage areas for canoes / kayaks;
- Similar to bike sharing facilities that are currently available on the Toronto waterfront, there may be an opportunity to introduce kayak or canoe sharing at various places alongside the water. This would prevent people having to bring their own equipment and allow for some form of 'island hopping'.

4.3.4 / CRUISE

Cruise traffic in Toronto grew from 10 to 17 vessels in the period 2000-2018 and saw a record doubling of that (34 vessels) in 2019. For the next decade, this number is expected to further increase to around 40 vessels (2028), mainly due to small luxury and exploration cruises (Great Lakes and some coastal). The actual size of cruise vessels is also expected to increase (max to approx. 220m).

Toronto currently serves as a home port as well as port of call for the cruise industry, with good infrastructure already in place, including the existing cruise ship terminal at 8 Unwin Avenue. It is understood that the projected growth in cruise traffic can be accommodated at this existing facility and that cruise line operators are satisfied with the service they receive when visiting Toronto.

The one desire that was expressed by the cruise liners was to have a terminal at a more centralized (downtown) location. Developing this, through the construction of a multi-user pier, would introduce a boost to the local economy, especially along the waterfront, as cruise passengers would be able to walk around the Harbourfront and visit local business.

The concept and initial feasibility of a multi-user pier on the Toronto waterfront is described in more detail in Section 4.4.



Photo: Albinger



Photo: Hornblower

4.3.5 / WATER TAXIS

As also mentioned in Section 2.2, the use of water taxis on the Toronto waterfront has seen a modest increase over time, a trend which is expected to continue in the foreseeable future, especially if additional stops (Marine Nodes) can be added to their current routes.

- To make the new Marine Nodes suitable for receiving water taxis, the following should be considered:
- Allow for easy access and prevent the use of ‘ladders’, as water taxis tend to have low freeboards. With water levels fluctuating significantly throughout the season, a floating dock (moving up and down with the water level) should be considered for mooring;
- The dock design and passenger access point to the water taxis should allow access for people with disabilities (wheelchair access etc.);
- The mooring location and passenger access point to the water taxis should be protected against incoming waves and currents (i.e. non-exposed).

Further reference is made to Section 3.3.2, where the potential future of marine public transport on the Toronto waterfront is described.



Photo: Harbourfront Center

4.3.6 / EVENT MOORING

Tall Ships

Throughout the months of April to October, the Toronto waterfront welcomes a variety of vessels that visit Toronto for marine events, such as the Tall Ships Festival. Safeguarding adequate mooring space for these vessels is crucial to the success of these events and hence ample temporary mooring space should be available to accommodate this.



Photo: <https://www.poandpo.com/places-to-go/get-ready-for-excitement-at-redpath-waterfront-festival-2162019857/>

These vessels currently moor on the dockwall that stretches between Peter Street Slip and Parliament Street Slip. This is allowed since these vessels are only visiting and hence not permanent and tend to have an overall slender structure that does not completely block views from the waterfront.

If needed, these vessels can also moor on any of the two finger piers or in one of the slips.

Navy Vessels

From time to time, Ports Toronto receives a request to allocate berthing space for a navy vessel on the Toronto waterfront. These vessels typically measure some 140m in length, with a draft of approximately 5m. At present, there is only one location where such vessel can be moored, which is on the westernmost part of East Bayfront, adjacent to Canada’s Sugar Beach (refer the dark blue vessel in **Figure 4.1**).

Any future use of this 200m long stretch of quay wall should take due consideration of the berthing capacity this provides, and unless an alternative mooring option for a navy vessel becomes available on the waterfront (e.g. through a new-built multi-user pier), this berthing capacity should be safeguarded.

4.3.7 / INDUSTRY

The four main commodities handled in the port are sugar, aggregates, road salt and cement, of which the last 2 have seen growth during the past 5 years. Over the last three years, tonnage has been constant (around 2.2 Million) and due to the continuation of the construction boom in downtown Toronto, this is expected to remain in the years to come.

With products such as cement, construction material and road salt actually needed in large (bulk) quantities in the downtown Toronto area, shipping these goods in, as opposed to trucking, provides an environmentally friendly transportation option.

Industrial uses in the Toronto Port therefore play an important role, now and into the future. Future planning activities, especially in the Port Lands area should allow for this particular marine use to be able to continue.

In this regard, clustering of industrial activities around the Ship Channel seems a logical way forward.



Photo: Toronto Star

4.3.8 / FLOATING STRUCTURES AND ART ON THE WATER

Floating structures (e.g. floating restaurants) and art on the water, whether they are publicly accessible or not, require a process that considers approvals from all relevant authorities, safety management (onshore as well as in the water), navigational aspects and potential environmental impacts.

Floating Structures

Floating structures allow for an expanded experience of the waterfront while also creating a new type of public space for the city. The floating elements can dramatically expand the water's edge condition creating new public realm that is flexible and able to accommodate diverse activities, ecologies and special events that allow for activation throughout the changing seasons. Cities such as Copenhagen have integrated floating elements along their harbour such as floating habitats, restaurants, harbour baths and multi-user piers as a successful strategy for regenerating public life along the waterfront while accommodating shipping.

Public Art (publicly and non-publicly accessible structures)

Public art is an integral part of creating a dynamic waterfront. It activates public spaces, invites interaction, and fosters healthy public dialogue on important social and cultural issues. It also has the potential to bring the public to the shoreline time and again, to enjoy the attractions from vantage points on land and water. As we build neighborhoods, Waterfront Toronto is increasingly including water-based locations for public art. The East Bayfront Public Art Plan situates the precinct's

Destination Artwork site on Sherbourne Water's Edge, a location that starts on land and extends into Toronto harbour. Temporary art has been successfully installed at Harbour Square Park Basin, engaging residents and visitors alike. The demand for temporary and ephemeral art on the

water will only increase as artists and arts organizations see Lake Ontario and other Toronto waterways as compelling sites to tell stories.

Permits

Implementation of floating structures and art projects on the water will require close cooperation with PortsToronto, CreateTO, and the Toronto and Region Conservation Authority (TRCA). Permanent and temporary projects on the water require Harbour Master Authorization; applications are reviewed by the Toronto Port Authority (also known as PortsToronto). Landside and dockwall owners may require a permit from the City of Toronto's Parks, Forestry and Recreation Division. Depending on the size, scope, and impacts of the near or in-water work, Fisheries and Oceans Canada (DFO) approvals may be required.

Considerations

Public art on the water must consider variable weather conditions— currents, waves, ice flow and changing lake levels require durable and water-resistant materials, hardware, and anchoring. Access to maintenance and inspection of the artwork must also be considered. TRCA, PortsToronto and DFO will provide recommendations and requirements around safety and environmental impacts. For example, public art must adhere to navigation safety standards and accessible artwork must conform to regulatory safety standards (such as toe rails or railings). It must also be AODA compliant. Permanent art projects in the water should avoid harmful impacts to fish and their habitat, therefore Aquatic Habitat Toronto (AHT) may suggest actions that benefit fish and fish habitat. DFO also requires that the construction of in-water work follow Restricted Activity Timing Windows, which means that in-water works are to be constructed between July 15 and September 30 for the protection of spawning fish. If longer construction periods are necessary, applications must be made through AHT.

RECOMMENDATION: FLOATING STRUCTURES AND ART ON THE WATER

Working Group members: WT, PortsToronto, City, TRCA

Action: Develop a process how to deal with non-publicly accessible and publicly accessible floating structures and art in the Inner Harbour.

Objective: objectives would be to:

- Investigate if there is an appetite amongst entrepreneurs / investors to develop publicly accessible floating structures;
- Define potential locations for both non-accessible and accessible floating structures;
- Draft flow diagram for temporary and permanent permitting requirements and approval processes for development;



SOS, designed by Ann Hirsch & Jeremy Angier (A+J Art + Design)

Photo: © 2016 A+J Art+Design

4.4 LONG-TERM MOORING OPTIONS

The main focus area of the Marine Use Strategy consists of different stretches of waterfront, each offering its own challenges and unique opportunities for extending marine uses. Going from west to east, this section describes these challenges and opportunities, and proposes options for long term mooring needs as described previously.

When looking at current mooring allocations on the waterfront, and in identifying additional dockwall space suitable for future mooring, it is important to understand that on the dockwall that stretches between Peter Street Slip and Parliament Street Slip (directly facing Lake Ontario), permanent mooring of any type of vessel should be prevented as it would impede an unobstructed view of the water. This implies that in particular tour / charter boats would need to moor either in one of the slips or on a finger pier.

4.4.1 / WESTERN CHANNEL TO PETER STREET SLIP

Although not part of the key focus area, the stretch of waterfront from the Western Channel to Peter Street Slip is an important and integral part of the study, and from a 'long term mooring potential' offers some interesting options.

Figure 4.2 provides an overview of this particular stretch, which is described in more detail below.

- At the western end of the Western Channel, two yacht clubs are located, i.e. the National Yacht Club and the Alexandra Yacht Club. Both yacht clubs are protected against incoming waves by several offshore breakwaters (vertical walls). The state of these breakwaters however is poor and during high water levels they tend to be submerged which makes them a navigational hazard. Since ownership of the breakwaters is unclear, necessary repairs have not yet taken place.

From a long-term mooring needs perspective, this location offers a large, protected (provided breakwaters get repaired) basin, currently used for swing moorings, which may offer additional pleasure craft mooring when slips are installed.

- The Western Channel is a rather narrow, busy waterway, where vessel mooring on either side is not encouraged, and as such does not provide any mooring options.
- Portland Street Slip is currently the home to several tour / charter boats as well as the tender to the Island Yacht Club. The west side of this slip offers a, currently under-used, 200m stretch of dockwall, well protected against incoming waves. Given its proximity to Billy Bishop Airport and the access tunnel, creating a Marine Node for public marine transportation at this location seems worthwhile. The remainder of this stretch could be kept available for event mooring.
- The west side of the Spadina Street Slip is currently fully occupied by a tour/charter boat as well as a water taxi company. The west side offers some 50m of dockwall space in front of an 8-storey residential building, which potentially could be used for the permanent mooring of a tour / charter boat or kept available for event mooring.
- The East side of Peter Street Slip is currently home to marine rescue vessels as well as a water taxi company. The west side is in use for temporary mooring of larger yachts and for event mooring (e.g. tall ships).



FIGURE 4.2 – WESTERN CHANNEL TO PETER SLIP

4.4.2 / CENTRAL WATERFRONT AND YORK STREET SLIP

The Central Waterfront and York Street Slip are well developed and popular destinations with a variety of marine uses already operating. In evaluating this particular stretch, the key driver was to find means to create additional mooring space on the waterfront.

Figure 4.5 provides an overview of these areas, which are described in more detail below.

- The Central Waterfront is one of the busiest stretches on the Toronto Waterfront. The two finger piers on York Quay provide space for a total of 8 tour / charter boats, and the available dockwall in between is in use by a tall ship. An additional (third) finger pier, in between the two existing ones, could further increase mooring capacity at this location.

From a planning and design perspective, an initial assessment of creating a third finger pier highlighted the following:

- The minimum distance between one of the existing and the new finger pier should be approximately 60m;
- The length of the new finger pier should at least be 60m (as opposed to the current 50m), to allow mooring of the tall ship (Kajama) that is currently on the dockwall;
- When determining the level of the deck, due consideration needs to be given to the latest predictions in extreme lake levels;
- The finger pier should be easily accessible for supply trucks;
- York Street Slip is a very busy area, which currently accommodates a number of tour / charter boat operators, two water taxi companies and tenders to RCYC and the Toronto Island Marina. This slip does not offer any additional mooring space.
- Harbour Square Park Basin is a shallow body of water in front of a residential building, unsuitable for any type of large vessel mooring. It does lend itself however for accommodating canoes / kayaks, small sailboats and floating structures and could (again) be considered for displaying floating art.

FINGER PIER FINANCIAL VIABILITY

Another key aspect in developing one or more finger piers, is ownership of the asset and associated with that, actual funding of the construction. A high-level assessment into the financial feasibility of a finger pier learnt the following:

- The CAPEX cost for this 60m long structure would be in the order of CAD 4.4 Million.
- With revenue only generated through the operation of 4 tour / charter boats, the break-even point on this investment would be around 11.2 years.
- This is a rather long period and is unlikely to drive any business case for constructing finger piers. The justification for developing these piers should therefore be sought in other areas.

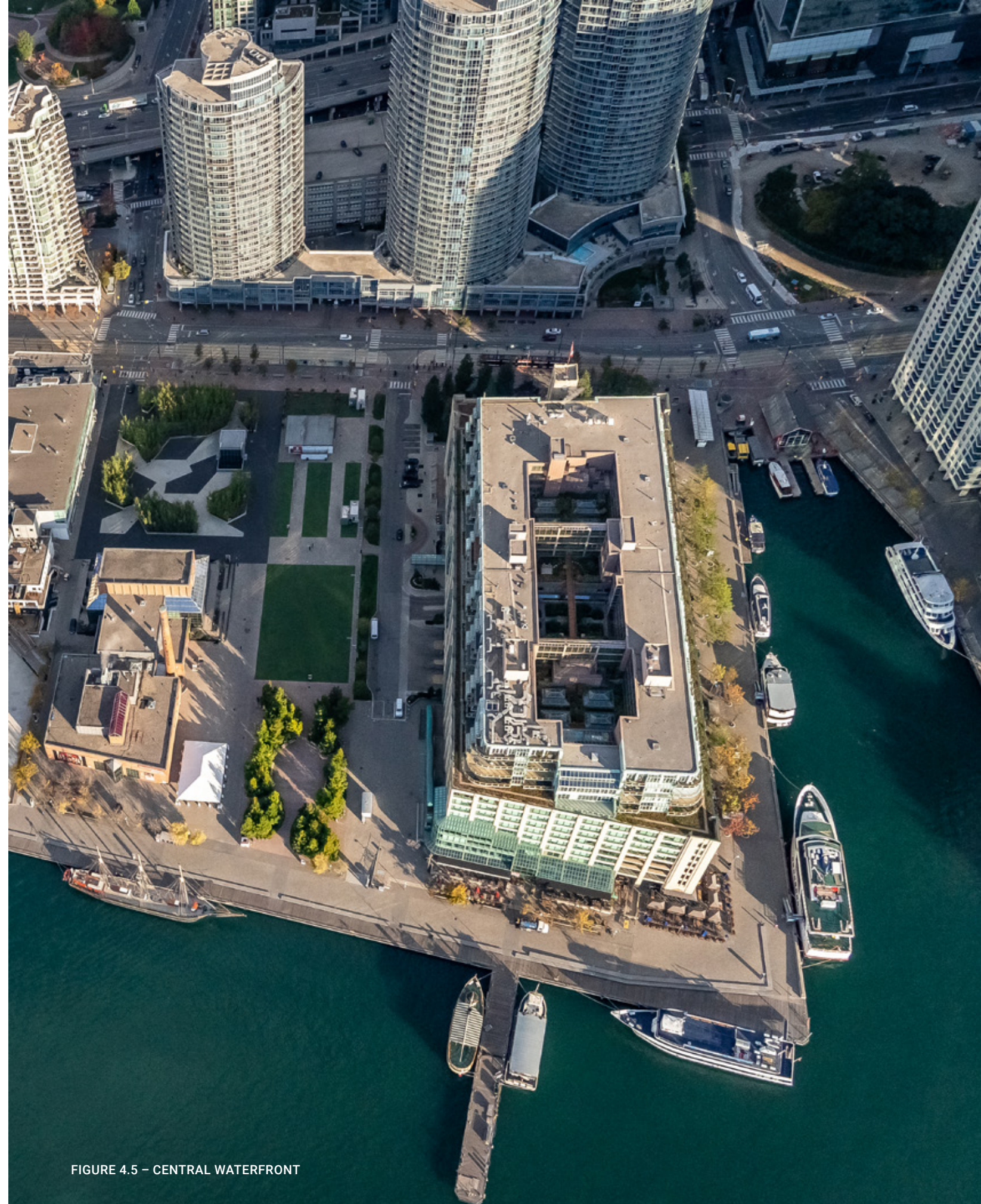


FIGURE 4.5 – CENTRAL WATERFRONT

4.4.3 / YONGE STREET SLIP

Yonge Street Slip currently marks the eastern end of the busy waterfront and could play an important connecting role to the future developments further east. In evaluating the future (mooring) potential for this slip, the key driver was to create an attractive destination point on the waterfront through the creation of a large multi-user pier for receiving cruise and navy vessels with associated public realm.

Figure 4.6 provides an overview of this area, which is described in more detail below.

- Yonge Street Slip is currently used by three water taxi companies. The slip offers great potential for mooring, especially after re-construction of the Jack Layton Ferry terminal, which will include the removal of the ferry berth located halfway the slip.

Yonge Street Slip is the one location on the Toronto Waterfront where a multi-user pier could potentially be realized. This multi-user pier would act as a real destination point on the waterfront, accommodate visiting navy vessels and potentially act as a cruise terminal. It would furthermore add to the public realm by means of retail and potentially a park.

The section below provides the pros and cons of realizing a multi-user pier, including the outcome of a high-level economic impact assessment to assess the economic feasibility of this structure.

MULTI-USER PIER

Pros:

- Creation of a true destination point on the Toronto waterfront that will act as a magnet for visiting ships;
- Creation of additional food & beverage outlets, retail and potentially park space at a prime location;
- Creation of sought-after downtown berth space for temporary mooring of large visiting vessels (e.g. navy, tall ships, cruise);
- Potential to create different levels, with the lower level (potentially below ground) used for vessel operations (supply, luggage handling, customs, check-in counters) and the higher level accessible to the public;

Cons:

- Use as cruise terminal will attract more traffic to the waterfront, e.g. suppliers, transfer of passengers, taxi's, coach buses. This is why a large number of waterfront cities have located their cruise terminals away from busy downtown areas, to more remote locations within their ports;
- Environmental considerations would ideally require cruise vessels to use shore power (cold ironing) rather than to have the vessel's generators continued to run during mooring. This facility is currently not in place for cruise vessels on the Toronto waterfront;
- Navigational and safety challenges maneuvering large vessels through the busy inner harbour, including the possible need for tug support, if cruise terminal was to be in the central waterfront area;
- An initial high-level economic impact assessment shows that:
 - The CAPEX cost for this structure would be in the order of CAD 45 Million;
 - When evaluating the direct, indirect and induced impacts, the actual 'cruise function' of the pier is not the main driver, but broader economic impact of bringing visitors to the downtown waterfront;
 - From a financial perspective it is very difficult to recoup the high initial investment costs;
 - From an economic perspective, things look somewhat more viable. Short term impact would be realized through the capital investment in the pier. Long term impact through increased retail and F&B at a landmark location.



FIGURE 4.6 – HARBOUR SQUARE BASIN AND YONGE STREET SLIP

4.4.4 / REDPATH & JARVIS STREET SLIP

Together with the Ship Channel and certain stretches in the Port Lands area, Redpath and Jarvis Street Slip are the only remaining industrial stretches of waterfront in the along the Central Waterfront. In evaluating this particular stretch, the key driver was to find means to create a continuous waterfront.

Figure 4.7 provides an overview of this area, which is described in more detail below.

- Redpath Sugar has been in operation since 1958 and their complex on the Toronto waterfront houses storage as well as refining facilities. Raw sugar is shipped to the refinery and unloaded from vessels that berth in Jarvis Street Slip using Redpath's onshore equipment, approximately 25 times per year. Additionally, some 5-6 times per year, Redpath receives large self-unloading vessels that moor across the Jarvis Street Slip and unload using their onboard equipment.

With creating a 'continuous waterfront' being one of the key objectives of developing the Toronto waterfront, several concepts of 'by-passing' the Redpath facility on the water side were considered. Creating such a by-pass however is a complex challenge, where elements of nautical safety, interruptions of operations, asset ownership, liability and costs all need to be considered with equal importance. Future consideration of a continuous waterfront walk around

the Redpath facility will require its own feasibility study and should be developed in communication with WT, City, PT and Redpath Sugar.

- The West side of Jarvis Street Slip is home to Redpath operations, leaving no room for mooring of other vessels on the other (East) side of the basin. In addition, the East side of Jarvis Street slip houses Canada's Sugar Beach (a City park), which would not allow the permanent mooring of tour / charter boats. The East side of the slip could however be used for event mooring.



FIGURE 4.7 – JARVIS STREET SLIP

4.4.5 / EAST BAYFRONT & PARLIAMENT STREET SLIP

East Bayfront and Parliament Street Slip are currently undergoing significant redevelopment and have the potential to become a similarly busy stretch as the Central Waterfront. In evaluating the potential for future marine use for these areas, the key drivers were to create additional mooring space on the waterfront (East Bayfront) and investigate relocation of existing marine users to create space for recreational use and creation of additional mooring space on the waterfront (Parliament Street Slip).

Figure 4.8 provides an overview of these areas, which are described in more detail below.

- At present, there is no permanent mooring on the 650m long stretch of dockwall at East Bayfront. Temporary mooring occurs by tall ships as well as navy vessels. The latter can currently only moor at a 200m long stretch on the westernmost part of East Bayfront, adjacent to Canada's Sugar Beach (refer Figure 4.7).
- From a potential future mooring perspective, the construction of one or more finger piers would create additional berth space, with existing dockwall stretches still available for event mooring.
- When developing one or more new finger piers on East Bayfront, the following planning and design considerations should be taken into consideration:

- The finger pier should be easily accessible for supply trucks;
 - The minimum distance between two finger piers should be approximately 60m;
 - The length of a new finger pier should at least be 60m;
- The following environmental conditions should be considered in developing the design:
 - Exposure to wind and waves (which can be significant at that location within the inner harbour)
 - Extreme lake levels (to determine deck levels);
 - Currents from the Keating Channel
- Parliament Street Slip is currently underutilized and primarily accommodates a number of charter boats. Once the surrounding onshore areas are fully developed though, Parliament Street Slip is expected to be a heavily sought-after stretch of waterfront.
- From a future marine use perspective, the slip and surrounding area could be used to create marina slips and/or rental and access for canoes and kayaks. The location furthermore lends itself to the creation of a Marine Node for marine public transportation, either inside the slip or just outside (which would be more exposed). Adjacent areas furthermore provide park space for outdoor programming and, closer to the waterfront, retail space could be allocated specifically dedicated to marine uses.



FIGURE 4.8 – EAST BAYFRONT AND PARLIAMENT STREET SLIP

4.4.6 / KEATING CHANNEL & VILLIERS ISLAND

Similar to East Bayfront and Parliament Street Slip, Villiers Island is undergoing redevelopment, with the Keating Channel still to follow. In evaluating the potential for future marine use for these areas, the key driver was to create space for recreational marine use (small boats, canoes, kayaks and fishing).

Figure 4.9 provides an overview of these areas, which are described in more detail below.

- The Keating Channel and surrounding onshore areas will be subject to development over the next 5-10 years. The precinct plan prescribes that the Keating Channel will remain open for motorized vessels. It allows for a Marine Node within the Keating Channel, although the new bridge over Cherry Street will create air draft restrictions for vessels wanting to pass underneath.
- Villiers Island is a development that is well underway with the construction of the flood protection and naturalization works. From a marine use perspective, it identifies a number of docking locations for waterborne transportation, fishing nodes, and launching facilities for canoes and kayaks including drop-off and onshore storage areas.



FIGURE 4.9 – KEATING CHANNEL AND VILLIERS ISLAND

At the North side of Polson slip a shallow, protected area called canoe cove is planned. This type of recreational use is in very close proximity to an operating industrial dock and requires a well developed and coordinated set of safety regulations, which need to be strictly adhered to by all involved.

RECOMMENDATION: NEW DON MOUTH BOATING MANAGEMENT STRATEGY

Working Group Members: WT, PT, Lafarge Cement and the Police Marine Unit

Action: Develop safety, security and navigation guidelines for marine use in and near Polson Slip, including strategies how to communicate these to the public and how to enforce these

Objective: Ensure a rigid safety system is in place for this newly developed area on the waterfront where recreational users will be very close vicinity to industrial users

4.4.7 / SHIP CHANNEL

Since industrial uses of the Port will continue, it is important to earmark a certain area within the Toronto Harbour for this activity. The Ship Channel (refer **Figure 4.10**) is currently mainly used for commercial shipping, with several industries needing waterfront access located adjacent to the channel. It therefore appears logical to have the channel keep this function and to have this recognized in any future planning work.

A vital part of the Ship Channel for marine industrial users is the Turning Basin. This basin is used to turn vessel around 180 degrees, either upon arrival or departure, and is a key element in keeping the Ship Channel navigable and safe to operate. During the shipping season (April-December) this basin will need to be available for the shipping industry.



FIGURE 4.10 – SHIP CHANNEL & TURNING BASIN

4.5 / MOORING: CONSIDERATIONS

In addition to the above described Recommendations, the study uncovered a large number of valuable ideas and insights that could not be addressed as part of the recommendations, but are worth capturing and potentially following up on in the future during the implementation phases. These items have been categorized into Considerations.

This section briefly summarizes the Mooring Considerations, which have also been included in the Considerations Summary in Chapter 6.

4.5.1 / ADDITIONAL FINGER PIERS

When increasing mooring capacity on the waterfront by developing additional finger piers, attention is to be paid to:

- Environmental factors such as water levels, wind and waves in relation to the proposed finger piers at East Bayfront. Prevailing winds in this area may limit feasibility and usefulness;
- New finger piers must have access for vehicular supply;
- New finger piers should be aligned as an 'extension' of the north-south roads connecting from Queens Quay to the Water's Edge Promenade.

4.5.2 / COMMON USER DOCK

A common user dock facility for tour / charter boats for intake of services could be evaluated for fuel, but will not work for things like fresh water, supplies (food) or sewage, which is taken in and disposed of on a daily basis.

4.5.3 / FACILITIES FOR MARINE USERS

There is a need for facilities for boat repairs, maintenance and storage closer to the central waterfront (Inner Harbour or islands). With the development of the Port Lands area, several of these facilities have disappeared from the waterfront.

4.5.4 / MULTI-USER PIER

When considering the development of a cruise (multi-user pier) consider:

- The actual (added) value of a new cruise terminal compared to maintaining the current facility, the former introducing additional traffic into the inner harbour;
- The need to enhance and expand the public realm, not remove park area for support services;

- A cruise terminal building constructed on a pier that expands the public realm and has the possibility for public events and amenities is consistent with the Central Waterfront Secondary Plan;
- The possible need to accommodate tug boats for large cruise ships;
- The presence of large cruise ships in proximity to the Jack Layton Ferry Terminal must not impact ferry traffic and add to land congestion for arriving and departing passengers and suppliers. Note that a typical 200 passenger cruise ship only requires 2 buses over 1-2 hours in the morning and the same in the afternoon.;
- The interest in incentivizing or encouraging cruise industry to shift to electric engines;
- Ideas to outfit more infrastructure to support electric boats.

4.5.5 / CREATING AN ACTIVE WATERFRONT

The waterfronts which have been most effectively incorporated into the life of the city's residents and visitors are those which host a wide diversity of experience and activities. Park space combined with nearby commercial spaces, cultural institutions, food markets, historic sites, with different architectural scales and styles, provide the opportunity to shift between activities and increases their appeal. Likewise, waterfronts with a variety of activities appeal to a broader demographic of visitors and maintain activity year-round.

Waterfront cities around the globe have been working hard to create access to their waterfronts. Having both a variety of ways to get to and from the waterfront, but also connectivity along the waterfront via strong cycling and pedestrian infrastructure such as the 35km long Seawall walkway in Vancouver, ensure people utilize public spaces at the waterfront year-round.

Many attractive waterfronts such as Stockholm and Vancouver also have recreational marine activity such as sailing, canoeing and are often accessible from various parts of their waterfront.



Retail & Dining

Feedback from stakeholders and the public indicated that there are limited food and beverage outlets on the waterfront. The Central Waterfront is the only area where this is at all developed. More consideration to this aspect should be given when developing, further into the future, the Keating Channel and the eastern waterfront.

There may also be options to develop temporary markets/ food stands at the central waterfront and Port Lands. When developing additional food and beverage outlets on the waterfront, it is important to ensure a good balance between the fast-food / take-out / non-seating restaurants and the fine(r) dining establishments. The latter may be preferred;

The waterfront may benefit from a major destination, which could be created by developing a multi-user pier. This pier would offer a prime waterfront location for retail and food and beverage shops. It can also be designed to offer additional park space, adding to the public realm. From a marine use perspective, the pier could be designed in such a way that it can accommodate mooring of large, visiting vessels, such as navy ships or tall boats.

Taking it a step further, one could consider making this multi-user pier also available for Great Lake cruise vessels (and hence relocate these from the current cruise ship terminal). This should not introduce any traffic challenges on the land side. Note that a typical 200 passenger cruise ship only requires 2 buses over 1-2 hours in the morning and the same in the afternoon.

In creating an active waterfront, the following should be considered:

- Providing marine activation such as recreational boating options, continuous boardwalks, public marine transportation to experience the waterfront from the water-side;
- More retail and dining opportunities to attract (and keep) visitors at the waterfront;
- Leverage adjacent existing public attractions such as dining & retail cluster, or destination parks to encourage activation and attraction on the waterfront.
- Making the waterfront a year-round destination;
- Animating the waterfront with a continuous walkway boardwalk and introduce points of interests to attract more visitors;
- (Collective) marketing of available services on waterfront.

4.5.6 / CULTURAL DESTINATIONS ON THE WATERFRONT

Feedback from stakeholders indicated that the City of Toronto could do more to promote itself as a true waterfront destination. It is felt that all ingredients for this are available, such as waterfront promenades, a beautiful skyline, a natural park (the spit), islands and lagoons (as sailing destination), as well as the nearby presence of an industrial port. These are great 'selling points' to attract visitors, active marine users and marine use related industry (tour / charter boats, cruise vessels), which can be further capitalized on. One of the stakeholders even introduced a potential tag line, with Toronto potentially being the 'Fresh Water Capital of the World'.

Many successful waterfront cities have cultural uses such as museums, galleries, civic centres sited directly on the waterfront, and for some cities, with multiple institutions clustered within five to ten-minute walking distance from one another.

Many of the cultural buildings are iconic for their high-quality architectural design and innovative programming which attract international tourists (in addition to local residents), and with provision of ample public outdoor space for formal or casual gatherings.

Many institutions offer year-round programs and activities through evening/weekend events and indoor activity during the winter months.

To encourage a more cultural destinations on the waterfront, consider:

- A year-round programming and siting of cultural spaces on the waterfront that celebrate the history and cultural heritage of the city;
- Connect both existing and emerging cultural uses on the waterfront to the city's public transit system
- Planning interpretive signage to help waterfront visitors understand the significance and heritage of marine and Indigenous activity on Toronto's waterfront;
- Use the water's edge as a venue to educate people about marine uses and maritime and Indigenous history on the Toronto waterfront;
- A museum that can also serve as a starting point for a heritage marine walk. In doing so, one could consider combining this with Indigenous history and combine the marine & Indigenous heritage into one.



Photo: TorontoNow



5

Management



5.1 / INTRODUCTION

Toronto's waterfront has made remarkable progress on the 'land side' of waterfront revitalization. However, marine partners and stakeholders indicate there is room for improvement in determining Who Does What? Decisions respecting the management of uses and activities in the water and along our shoreline must be made in a more consistent and open fashion; and the state-of-good-repair investment in the infrastructure and assets that enable the public's use and safe enjoyment of the water should be better coordinated.

For example, the critical need for dockwall rehabilitation is often complicated by or confusion regarding ownership, right to access, and/or responsibility to maintain. Another common issue is an inconsistent leasing process for existing and planned berths and slips. How are decisions made today about mooring? Is there due consideration of providing balance amongst different types of user groups? Do we need to streamline and simplify this process? And how can it be made more transparent?

This chapter explores the management of the water and shoreline throughout the study area. It contains six groupings of recommendations, partnerships and additional technical work needed to bring greater clarity to the question of marine management.

5.2 / OWNERSHIP & MAINTENANCE

Currently there is ambiguity regarding use, maintenance roles, ownership and responsibilities of various water and land-based assets across the study area. Whether water lots or breakwalls, dockwalls, piers, promenades and/or publicly accessible trails, each are governed by an often complicated legacy agreements that can make establishing priorities and responsibilities for these elements difficult. This condition should be examined carefully so that we can add appropriate focus and resources to tackle this issue.

RECOMMENDATION: VERIFY OWNERSHIP & MAINTENANCE RESPONSIBILITIES

1. Develop and Maintain a Waters 'Edge Ownership Map

The Marine Use Strategy Update includes a new type of ownership map which, for the first time, consolidates ownership status for all water lot, dockwall, waterfront promenade, and adjacent waterfront properties, onto a single, easy-to read composite map.

Furthermore, all study partners have agreed to utilize this composite map as a 'living' resource and will continually share new information in order to keep this map updated and accurate.

5.2.1 / WATER'S EDGE OWNERSHIP MAP

As part of the recommendation to Verify Ownership & Maintenance Responsibilities, our project team, with input from numerous project stakeholders, developed the initial composite with the most recent information available to provide clarity to three levels of ownership: land, dockwall and water. This map will be updated as needed and will be made publicly available .

See **Figure 5.1** for the Water's Edge Ownership Map

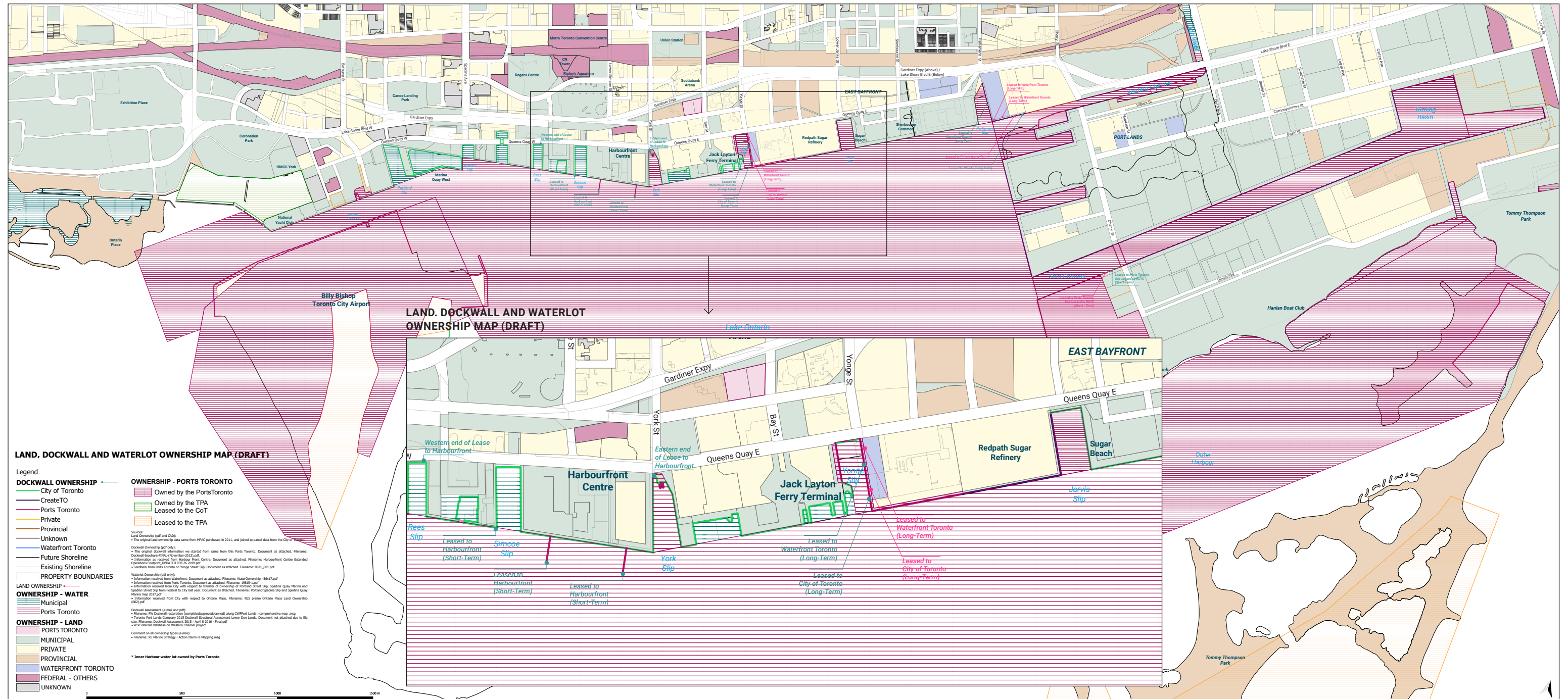


FIGURE.5.1 – WATER’S EDGE OWNERSHIP MAP

RECOMMENDATION: VERIFY OWNERSHIP & MAINTENANCE RESPONSIBILITIES

2. Evaluate and Simplify Maintenance Agreements & Responsibilities

Marine stakeholders (including various owners, lease holders and service providers) require a comprehensive inventory and evaluation of the various maintenance assumptions and agreements that dictate responsibilities to maintain and repair various waterfront assets. On the land side this includes: maintenance of on-shore utilities, below-grade parking structures and associated surface level open spaces, and waterfront trails and promenades. On the water lot side effort is needed to clarify responsibilities for debris collection in basins and slips.

Study partners will:

- Establish a committee to identify the resources needed to undertake a detailed review of all existing statutory requirements, and lease and license obligations, throughout the study area;
- Utilize these findings to determine sources of overlap, conflict and/or confusion regarding maintenance and repair responsibilities;
- Subject to any/all necessary legal and statutory amendments or approvals, commit to working collaboratively together on a simplified maintenance framework with a clearer set of responsibilities assigned going forward.

RECOMMENDATION: A COORDINATED STATE-OF-GOOD REPAIR PROGRAM FOR ALL SHORELINE INFRASTRUCTURE

One of the most important public safety, and water and shoreline access questions facing our waterfront today is the state-of-good-repair for more than approximately 20km of dockwalls, breakwaters, shorelines and piers throughout the study area. Due to the fragmentation and legacy uncertainty of ownership, much of the study, design and repair of these critical assets is completed in a piecemeal fashion by respective owners, and not necessarily according to highest priority.

A new and coordinated approach is needed to acknowledge the inter-connectedness of our shared and continuous shoreline in the protection of property, maintaining safe navigation routes, providing wildlife habitat, and supporting water and lakeside recreation and leisure. This new approach will additionally benefit from bulk procurement, greater access to infrastructure funding, standardized design, shared knowledge, etc.

This work should be guided by the Marine Co-ordination Committee (see Recommendation X) and should explore:

- A detailed review of all existing condition assessment reports for dockwalls, piers and breakwaters, and identification of gaps in available information;
- Development of a bulk procurement program for comprehensive technical investigations needed to fill current gaps in existing dockwall condition assessment reports;
- Development of a set of criteria to establish an objective prioritization strategy across the entire shoreline and study area;
- Identification of all available sources of infrastructure funding to undertake a large-scale re-investment strategy in shoreline and dockwall rehabilitation to ensure flood protection, safe navigation, and safe access and use of the water's edge;
- Bulk procurement strategy to design and deliver construction of an overhauled system of shoreline infrastructure over a long-term planning, design and construction timeline.

5.3 / MOORING LEASING APPROVALS

It is recommended that there be an action item to develop a clearer, more consistent and transparent approach to the receipt, circulation, review and approval/refusal of marine use activities anywhere within the study area. This sets out the expectation that while individual owners ultimately make their own decisions, each will be expected to give due consideration to objectives of the Marine Use Strategy.

RECOMMENDATION: IMPROVE THE MOORING AGREEMENT AND LEASING APPROVALS PROCESS

Waterfront stakeholders have expressed frustration over lack of a clear and consistent process for the submission and review of mooring and access proposals for the relocation, expansion and/or introduction of new water-based activities. These activities include water taxi uses, charter and tourism operations, dedicated ramp and launch points, and others.

The Marine Use Strategy therefore recommends the creation of recommendations for a clearer, more consistent and transparent approach to the receipt, circulation, review and approval/refusal of marine use activities anywhere within the study area. These recommendations must be clear that while individual owners are ultimately responsible for making their own leasing decisions, each will be requested to give due consideration to objectives and recommendations of the Marine Use Strategy.

This work should be guided by the Marine Co-ordination Committee described in greater detail at the end of this chapter /

5.4 / DOCKWALL COORDINATION

Dockwall assessment, design and repair is currently being undertaken by individual owners on an as-needed basis. It is recommended that further work be done to explore a coordinated strategy to improve the conditions of aging dockwalls that would benefit from bulk procurement, access to funding, prioritized expenditure of capital funds, standardized design, and shared knowledge.

Responsibility for the different portions of dockwall has been unclear in the past, and, in several areas, dockwall caps and cribs are in need of significant structural rehabilitation. With the ownership map, providing more clarity, there is the ability to be more proactive and co-ordinate assessment and repairs. The Marine Use Strategy recommends the creation of a strategy to assess dockwalls in the Harbour and prepare a plan for repairs and rehabilitation that will address the conditions of dockwalls in a co-ordinated manner.

5.2.2 MAINTENANCE

There is a need to devote necessary resources to decipher and simplify various maintenance assumptions and agreements. This includes maintenance of onshore utilities, dockwalls, and water lots. The action item will be to develop a program for shoreline infrastructure that will be guided by the Marine Co-ordination Committee.



5.5 / SAFETY

Safety on the waterfront was raised as an issue by waterfront stakeholders and is an important issue to address as recreational marine uses increase in popularity while retaining the vital industrial and commercial uses. There is a need for public education and awareness on how to navigate/use the inner harbor. Waters within the inner harbor fall under the Canada Marine Act Section 56, Subsection (1) (b), that are intended to promote safe and efficient navigation, and environmental protection in the waters of the Port of Toronto.

5.5.1 / STANDARDS, WAYFINDING, SAFETY STATIONS

RECOMMENDATION: DEVELOP A CONSISTENT LIFE SAFETY PROGRAM

Stakeholders have expressed concern with lack of consistency in the design, function and availability of emergency safety equipment throughout the waterfront. The project team recommends an audit of all existing safety stations, and the development of a standardized approach for all safety stations, signage, etc. throughout the study area. This should include clear and consistent requirements for each of the following:

- Locational signage to provide emergency service workers a clear indication of your location;
- Consistent spacing of emergency equipment, and a determination whether any higher risk areas exist and therefore require additional consideration and equipment;
- Standards for the appearance and type of life safety equipment;
- Set inspection, maintenance and repair responsibilities, perhaps with a single operator (which would be made possible if standard equipment specifications are adopted).

5.6 / STEWARDSHIP AND LEADERSHIP

5.6.1 / LAKE LEVEL MANAGEMENT

Climate change and extreme weather events have become an issue on Toronto's waterfront and impact marine uses. Recent years have had substantial high lake levels and flooding that have impacted the Toronto Islands, waterfronts, uses of docks and beaches. It has become clear that extreme weather is something that has to be planned for and managed. The City has been working with the TRCA to ensure flood mitigation measures are in place to protect the waterfront. There is now a response team within the city's Office of Emergency Management that coordinates the City's response. Examples of projects include work on Toronto Islands where roads have been raised, erosion control projects, improved shoreline infrastructure and revised flood mapping to reflect the conditions that we are experiencing. In the Port Lands, there is substantial public investment in flood protection measures that are currently being implemented that will enable new communities to be built in Toronto's Port Lands and also provide flood protection for existing communities in the City.

Beyond flood protection, there is the International Joint Commission (IJC) that considers the impact of Great Lake Water Levels and is responsible for the flow of water from Lake Ontario to the St. Lawrence. The severe impact of the high-water levels in Lake Ontario during times of heavy rainfall has become clear. It is recommended that the Marine Coordination Committee provide the coordinated input into the discussions of future Lake Ontario lake levels.

5.6.2 / ENGAGE FIRST NATIONS AS STEWARDS

The project team will continue to consult with the MCFN and engage other interested First Nations with traditional ties to the area. In addition, the project team will consult with urban Indigenous groups within the City with an interest in marine use and navigation in the Toronto Inner Harbour throughout implementation of the recommendations.

Future engagement with Indigenous communities (throughout implementation phases) could take place through:

- MCFN and other First Nations groups to engage with Sustainable Economic Development Office for the actions where business opportunities could be identified;
- Urban indigenous groups through Toronto Aboriginal Support Services Council; and
- Indigenous residents on the waterfront (e.g. Indigenous Hub in the West Don Lands community).

RECOMMENDATION: Provide pro-active stewardship & leadership on waterfront issues

1. Explore the value and feasibility of a coordinated approach to lake level management

There is need to explore the value of a more coordinated, inter-agency position on lake level management, including a strategy to address contingency planning and emergency response as part of coordination efforts between jurisdictions, land/ infrastructure owners and marine uses to address accidents, infrastructure failure and extreme weather events including high water levels.

2. Engage First Nations as Stewards

City of Toronto and Waterfront Toronto to continue the outreach to First Nations and Urban Indigenous Groups to develop strategies to reflect FN traditions / history through planning initiatives and implementing development on the waterfront, place making projects, as well as creating opportunities for educational programs, community actions/events and employment.



5.7 / MARINE COORDINATION COMMITTEE

A key recommendation of this report is to establish a new multi-partner and co-chaired panel whose focus is the review and constructive feedback on all manner of marine issues, including all issues described above in this management chapter. It is recommended that the panel members endorse and refer to the Marine Use Strategy as a guiding document; and that the committee would provide non-binding advice with no regulatory or veto powers.

RECOMMENDATION: DEVELOP A MARINE COORDINATION COMMITTEE TO PROVIDE LEADERSHIP FOR ALL RECOMMENDATIONS IN THE MARINE USE STRATEGY REPORT:

Develop a co-chaired panel focused on review and constructive feedback on all manner of marine issues, including all issues described above in the management chapter.

- Structured similar to the Aquatic Habitat Toronto Committee (led by TRCA);
- Committee would adopt and refer to the Marine Use Strategy as a guiding document;
- The committee offers non-binding advice and expertise, though with no regulatory or veto powers over individual owner's decisions;
- Meetings to be open to the public and formal meeting records kept of all materials / agendas / minutes / etc.;
- Provides a forum for presentation and discussion on proposed marine uses throughout the study area;
- An opportunity to ensure ownership map remains current and that lease database remains up-to-date;
- Coordinate and track progress of coordinated shoreline and dockwall rehab program recommended in this report.



6

Summary & Next Steps

6.1 / IMPLEMENTATION ROADMAP

6.1.1 / SUMMARY OF RECOMMENDATIONS

The implementation roadmap (refer to Section 6.2) summarizes all relevant recommendations that have been uncovered as part of the Marine Use Strategy. This summary not only lists the ideas, but also suggests responsible parties that should be involved.

Responsible Parties

The implementation roadmap lists responsible parties but does not indicate who should take leadership or ownership. This will, amongst other things, depend on the authority or jurisdiction the concerned parties have and is probably best decided at a later stage.

Process Improvement/Potential Policy Changes, Action (Pilot, Study) or Continued Consultation

All recommendations and considerations have been labelled as either a process improvement, statutory requirement, an actionable item or continued consultation.

- Process improvement/Potential Policy changes involves various “Authorities Having Jurisdiction” collaborating on potential changes to the current decision-making processes to ensure more coordination and inclusion of diverse and representative voices within the marine community.
- An **Action** implies the potential to implement a pilot project or to launch a follow-up study;
- **Continued Consultation** ensures the topic does not disappear of the agenda and obtains the follow-up it deserves.

6.1.2 / IMPLEMENTATION PHASES

Each recommendation is assigned an Implementation Phase, which will guide the urgency, timing and resources needed to further develop each recommendation; and/or advance these recommendations into actionable items, whether these actions be a pilot or feasibility study, process improvements, continued consultation and/or possible policy changes, amongst other tangible outcomes. Each of these recommendation sub-headings (responsible parties; supporting policy or project; continued consultation; and Implementation Phase) are described below.

Implementation Phase 1 (up to 1 year): Action Items

This first phase of implementation begins immediately following completion of the Marine Use Strategy report, and consists of three parts:

- Establish the Terms of Reference of the Marine Coordinating Committee
- Complete Action items: Marine Use Strategy partners – working ‘in-house’ - will undertake additional investigation into the feasibility, timing and costs associated with recommended action items
- Confirm priority actions from the full list of recommendations

At the conclusion of this phase, Marine Use Strategy partners will seek necessary approval and authority from their respective decision-making bodies to proceed to Implementation Phase 2. For example, the City of Toronto anticipates submitting a report to Toronto City Council seeking specific direction to proceed (to be determined in Implementation in Phase1); while Waterfront Toronto and/ or PortsToronto may require direction from their respective Boards of Directors. These requests may also involve seeking funding to advance additional technical studies and projects to be delivered in Implementation Phase 2; and further outline those longer-term, more capital-intensive projects to be delivered in Implementation Phase 3. This phase will continue up to 1-year.

Implementation Phase 2 (1- 5 years): Projects

Following necessary direction from decision-making authorities, Marine Use Strategy partners will begin implementation of high priority (as determined in Implementation Phase 1) small capital projects and further technical studies. It is expected 1- 5-year timeframe for this phase.

Implementation Phase 3 (5 years +):

Capital Renewal & Expansion

Building on technical and feasibility studies completed in Implementation Phase 2, this project delivery-focused phase delivers long-term capital renewal and expansion projects. Examples include multi-user pier construction, expansion of piers and slips, long-term plans for dockwalls and other legacy structures, and needed investments at Harbourfront Centre. This phase will be 5+ years for implementation.



6.2 / IMPLEMENTATION ROADMAP

Following from the “Three M” approach (Movement, Mooring and Management), the following recommendations have been formulated as a “roadmap” for implementation.

	RECOMMENDATION	DESCRIPTION
MOVEMENT	Permitted Vehicular Ferry	Consider introducing a consolidated and dedicated permitted vehicular ferry service.
	Common Water Taxi Dock System	Carry out a review of the ongoing WT pilot & complete a feasibility study and comprehensive management strategy for a system of common user docks for water taxis across the waterfront
	Sea Bus System	Launch a feasibility study for the introduction of a sea bus system on the Waterfront
	Marine Nodes	Based on outcome of studies into <i>Common Water Taxi Dock System</i> and <i>Sea Bus System</i> , start developing Marine Nodes and routes as well as infrastructure requirements for landing system

MOORING	Coordinating Mooring on the Waterfront	Marine Coordination Committee will take leadership of coordinating mooring issues across the waterfront, of which the Parliament Street Slip is one (immediate) case
	Marina Slips	Launch a feasibility study to advise on the best option to increase marina slip capacity on the waterfront by identifying and comparing the following expansion options: (a) Parliament Street Slip, (b) Outer Harbour Marina, (c) Other Marina's & Yacht Clubs on the Waterfront, (d) Other
	Transient Mooring Facility (Kiss & Sail)	Launch a pilot project to test a temporary mooring facility
	Tour / Charter Boats	Determine how to deal with the tour / charter boat industry on the Toronto waterfront
	Floating Structures & Art on Water	Develop a process how to deal with non-publicly accessible (e.g. art) and publicly accessible (e.g. restaurants) floating structures and art in the Inner Harbour
	New Don Mouth Boating Management Strategy	Develop safety, security and navigation guidelines for marine use in and near Polson Slip, including strategies how to communicate these to the public and how to enforce these

RESPONSIBLE PARTIES	IMPLEMENTATION PHASE	PROCESS IMPROVEMENT / POTENTIAL POLICY CHANGES ACTION (PILOT, STUDY) / CONTINUED CONSULTATION	REPORT REFERENCE
City, PT, WT	Phase 1	Continued Consultation	3.3.2
WT, City, PT, Police Marine Unit	Phase 1	Action (Pilot)	3.3.3
WT, City, PT	Phase 2/3	Action (Study)	3.3.3
WT, City, PT	Phase 2/3	Action (Study)	3.3.4

WT, City, PT, CreateTO, HFC, other potential agencies on the waterfront	Develop Committee Terms of Reference in Phase 1	Process Improvement	4.2.1
WT, City, PT	Phase 2/3	Action (Study)	4.3.2
WT, City, PT, CreateTO	Phase 1	Action (Pilot)	4.2.3
WT, City, PT	Phase 1	Process Improvement	4.3.1
WT, City, PT, TRCA	Phase 2/3	Process Improvement	4.3.8
WT, PT, Lafarge Cement, Police Marine Unit, City	Phase 1	Process Improvement	4.4.6

	RECOMMENDATION	DESCRIPTION
MANAGEMENT	Marine Coordination Committee	Develop a co-chaired panel focused on review and constructive feedback on all manner of marine issues related to management
	Ownership & Maintenance Responsibilities	Develop and Maintain a Waters' Edge Ownership Composite Map' Evaluate and Simplify Maintenance Agreements & Responsibilities
	Mooring Agreement and Leasing Approvals Process	Establish a clear and consistent process for the submission and review of mooring and access proposals for the relocation, expansion and/or introduction of new water-based activities
	Co-ordinated state-of-good repair program for all shoreline infrastructure	Acknowledge the inter-connectedness of our shared and continuous shoreline in the protection of property, maintaining safe navigation routes, providing wildlife habitat, and supporting water and lakeside recreation and leisure; benefit from bulk procurement, greater access to infrastructure funding, standardized design, shared knowledge, etc.
	Life safety program	Conduct an audit of all existing safety stations and development a standardized approach for all safety stations, signage, etc. throughout the study area
	Stewardship and Leadership	Develop a coordinated approach to lake level management Engage First Nations as Stewards
	Engagement with Indigenous Communities	Future engagement with Indigenous Communities should take place through: <ul style="list-style-type: none"> • MCFN (to engage with Sustainable Economic Development Office for the actions where business opportunities could be identified) • Urban Indigenous groups through Toronto Aboriginal Support Services Council • Waterfront Indigenous residents (e.g. West Don neighborhood residents) The following three streams of work can be further refined through the implementation phases <ul style="list-style-type: none"> • Economic development: employment and support for Indigenous businesses (COT: IAO, EDC, Office of Partnerships; BIA and waterfront institutions and non-profit organizations such as HFC, Artscape, George Brown) • Place making and programmable spaces, dedicated facilities (COT: Planning, UD, PF&R, WT and other partners) • Learning & education, youth programs (COT: PF&R, HFC and non-profits and institutions)

RESPONSIBLE PARTIES	IMPLEMENTATION PHASE	PROCESS IMPROVEMENT / POTENTIAL POLICY CHANGES ACTION (PILOT, STUDY) / CONTINUED CONSULTATION	REPORT REFERENCE
WT, City, PT	Phase 1	Process Improvement	5.7
WT, City, PT, CreateTO	Phase 1	Process Improvement	5.2.1
WT, City, PT, CreateTO,	Phase 1	Process Improvement	5.3
WT, City, PT, CreateTO	Phase 1	Action (Pilot)	5.2.2
WT, City, PT, CreateTO	Phase 1	Action (Study)	5.5
City, PT	Phase 1	Continued Consultation	5.6
City, WT	Phase 1	Continued Consultation	5.5.6

6.3 / ITEMS FOR FURTHER CONSIDERATION

During the study, a large number of valuable ideas and insights were uncovered that could not be addressed in light of this strategy update but are worth capturing to provide potential follow up.

Items for further consideration are listed below and will be reviewed alongside with the Recommendations during all Implementation Phases.

TOPIC	CONSIDERATION	RESPONSIBLE PARTIES	REPORT REFERENCE
Navigation Conditions	Just over half of the proposed Marine Nodes for marine public (passenger) transportation (M1, M6-M11) are located outside the Inner Harbour. In this regard, it is important to emphasize that navigation conditions coming out of the Eastern Gap as well as out of the Western Channel can be challenging. Both these areas are exposed to incoming waves (often reflected off and as such amplified due to the presence of vertical wall structures), tend to be 'choppy' and are not favored by e.g. the water taxi industry. Developing these new Marine Nodes should therefore be considered in conjunction with the type of vessel capable of safely sailing to these locations.	WT, City, PT	3.4.1
Connectivity to Onshore Transit	For Marine Nodes M1-M5 it is important that they are in close proximity of existing or future planned onshore transit. If this onshore transit is not available (on a regular basis) within walking distance, passengers coming off the water are likely to take some form of private transport (taxi, uber) to leave the Waterfront. This can lead to further congestion of the already busy downtown area.	WT, City, PT	3.4.2
Ice Breaking	At present, three different organizations are responsible for ice breaking within the Inner Harbour: Ports Toronto, the City and the Marine Police Unit. Each organization looks after a different area within the port and as such serves different needs. In reviewing potential new Marine Nodes and different types of public marine transportation, the feasibility of year-round operations should be investigated.	City, PT, Police Marine Unit	3.4.3
Industrial Shipping	Recognize the importance of industrial shipping in the Port through: <ul style="list-style-type: none"> • Consider growing demand for (lake) shipping (low carbon transportation) • Coordination of vessel movements to avoid conflict and minimize operational interruptions 	City, PT	3.4.4
Finger Piers	When increasing mooring capacity on the waterfront, attention is to be paid to: <ul style="list-style-type: none"> • Environmental factors such as water levels, wind and waves in relation to the proposed finger piers at East Bayfront. Prevailing winds in this area may limit feasibility and usefulness • New finger piers must have access for vehicular supply • New finger piers should be located in the extension of an existing road 	WT, City	4.5.1

TOPIC	CONSIDERATION	RESPONSIBLE PARTIES	REPORT REFERENCE
Common User Dock	A common user facility for tour / charter boats for intake of services could be evaluated for fuel, but will not work for things like fresh water, supplies (food) and sewage, which is taken in and disposed of on a daily basis	WT, City, PT	4.5.2
Boat Repair	Need for facilities for boat repairs, maintenance and storage closer to the central waterfront (inner harbour or islands). With the development of the Port Lands area, several of these facilities have disappeared from the waterfront.	City, PT	4.5.3
Safety	Consider a universal boat ramp or dock for emergency response	City, PT	2.4.1
Active Recreation	New boat and kayak launches require vehicular access, loading areas, parking and storage	WT, City	4.5.5
Tour / Charter Boats	Examine opportunities for generating revenue from mooring fees or tour boat licenses	WT, City	2.4.1
Multi-user Pier / Public Realm	When considering the development of a cruise (multi-user pier) consider: <ul style="list-style-type: none"> • Actual (added) value of a new cruise terminal compared to maintaining current facility • Need to enhance the public realm, not reduce limited parks and open space (cruise terminal on a pier that expands the public realm and has the possibility for public events and amenities is consistent with the CWSP) • Accommodations for tugboats should be considered for large cruise ships • Large cruise ships in proximity to JLF Terminal may impact ferry traffic • Interest in incentivizing or encouraging cruise industry to go electric. Also, ideas to outfit more infrastructure to support electric boats 	WT, City, PT	4.5.4
Attractive Waterfront	In creating an attractive waterfront, consider: <ul style="list-style-type: none"> • Connecting East Bayfront to the central waterfront • More food and beverage outlets to attract (and keep) people at the waterfront • There is very limited parking on the central waterfront • Making the waterfront a year-round destination • Animating the waterfront with exciting boardwalks, introduce a landmark or anchor to attract more visitors • (Collective) marketing of available services on waterfront 	WT, City	4.5.5
Public Realm	Harbourfront Square Basin use for vessel berthing, or incorporate into the broader Ferry Terminal revitalization as a public realm asset	City	2.4.1

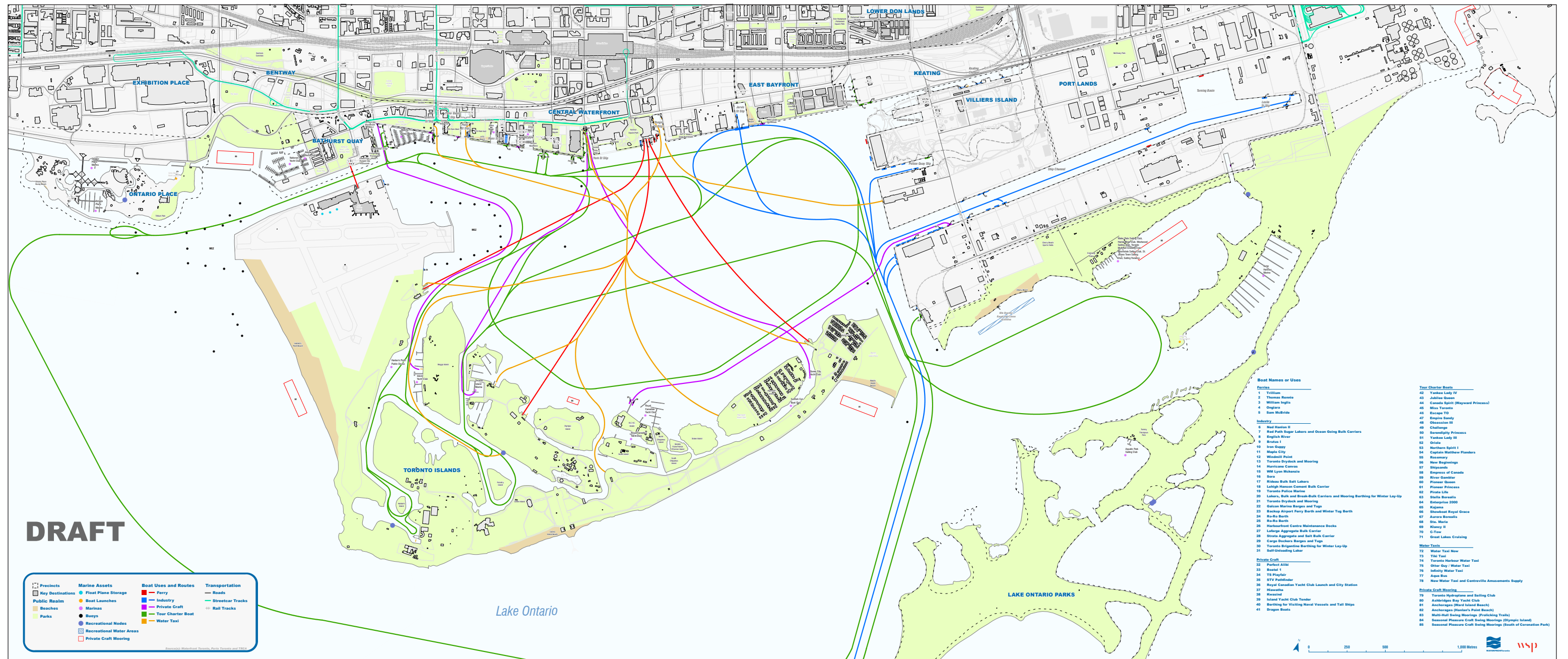
TOPIC	CONSIDERATION	RESPONSIBLE PARTIES	REPORT REFERENCE
Tourism Opportunities	<p>Passive use of the Waterfront Waterfront Anchor / Destination Point:</p> <ul style="list-style-type: none"> • Increase Food & Beverage outlets on the waterfront. In East consider East Bayfront and the Keating Channel). In West, consider Peter Street Slip (the Northern basin) and even Portland Street Slip (e.g. next to the silos); • Ensure a good balance between the fast-food/take-out/non-seating restaurants and the fine(r) dining establishments. The latter may be preferred; • Create a real destination point on the Waterfront (e.g. through a multi-user pier), offering a prime waterfront location for retail and F&B, additional park space and accommodation for mooring of large, visiting vessels, such as navy ships or tall ships, or even large cruise vessels. 	<p>WT, City</p> <p>WT, City</p> <p>WT, City, PT</p>	4.5.5
Tourism Opportunities	<p>Active use of the Waterfront:</p> <ul style="list-style-type: none"> • Ensure canoe / kayak rental at Villiers Island to facilitate active recreational marine use; • Consider the introduction of a canoe / kayak sharing schemes along the waterfront (similar to the bike sharing schemes); 	WT / City	2.4.1
Tourism Opportunities	<p>Cultural use of the Waterfront:</p> <ul style="list-style-type: none"> • Plan interpretive signage to help waterfront visitors understand the significance and heritage of marine activity on Toronto's waterfront; • Use the water's edge as a venue to educate people about marine uses and maritime history on the Toronto Waterfront; • Consider a maritime museum that can also serve as a starting point for a heritage marine walk. Consider combining this with indigenous history and combine the marine & Indigenous heritage into one 	WT / City	4.5.6
Tourism Opportunities	<p>Market a True Waterfront Destination:</p> <ul style="list-style-type: none"> • The City of Toronto to promote itself as a true waterfront destination (all ingredients for this are available, such as waterfront promenades, a beautiful skyline, a natural park (the spit), islands and lagoons (as sailing destination) as well as the nearby presence of an industrial port.) • Waterfront to be open year-round / create an all-season waterfront, where activities are happening throughout the year. 	WT / City / PT	4.5.6



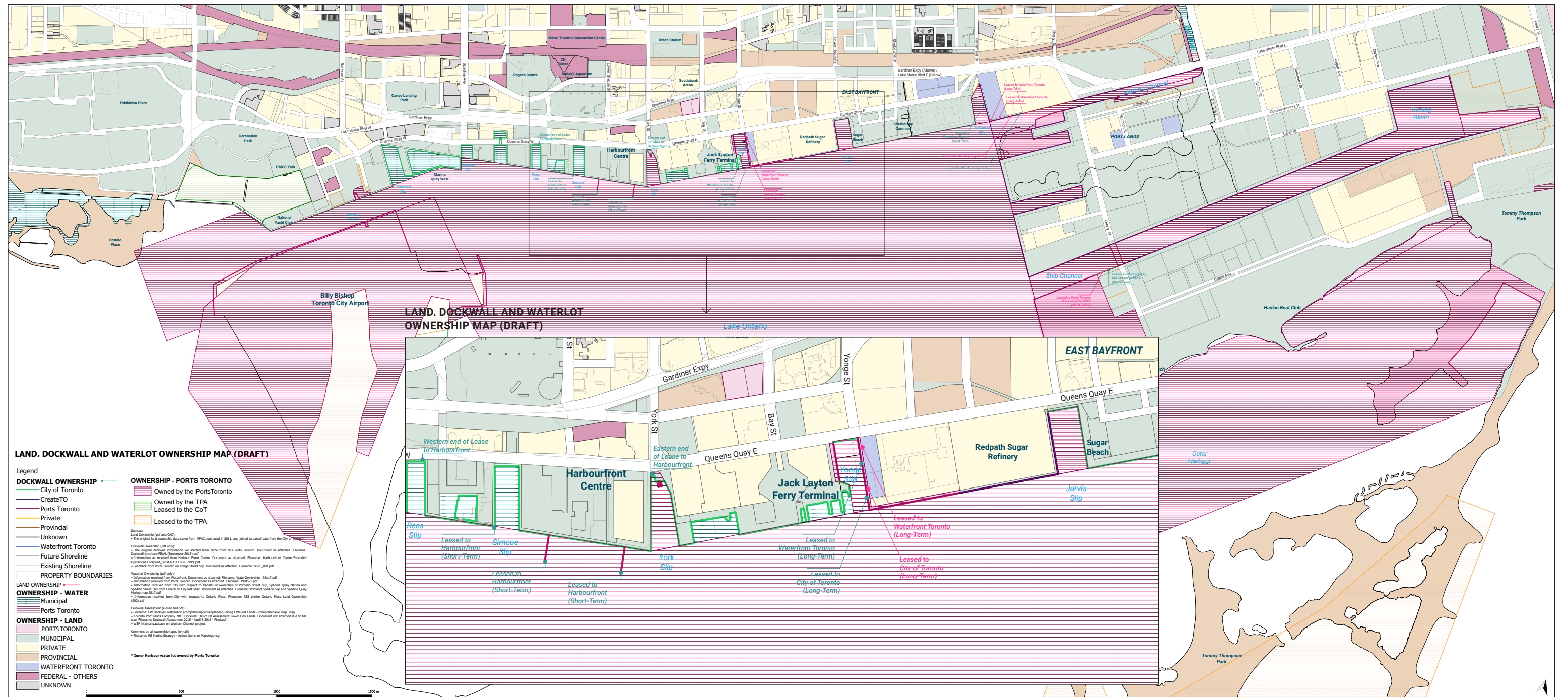


Maps

MAP 1 – MARINE USE INVENTORY MAP



MAP 2 – WATER'S EDGE OWNERSHIP MAP



MAP 3 – EXISTING PUBLIC MARINE TRANSPORTATION MAP



MAP 4 – FUTURE POTENTIAL PUBLIC MARINE TRANSPORTATION MAP

