

# Water as a Resource

## Port Lands & South of Eastern Transportation & Servicing Master Plan

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Ontario Association for Impact Assessment

October 18, 2018

# PORT LANDS AND SOUTH OF EASTERN

## Transportation and Servicing Master Plan

### ENVIRONMENTAL ASSESSMENT

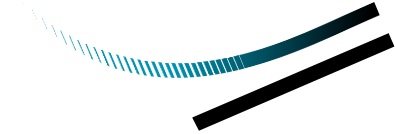
#### TRANSPORTATION



#### MUNICIPAL SERVICING (WATER/ WASTEWATER)



#### STORMWATER



**DILLON**  
CONSULTING



**CH2MHILL**

**PUBLIC WORK**



# Purpose of the Project

- Integrate the South of Eastern and the Port Lands areas through transportation and servicing through the Municipal Class EA Master Plan process
- Identify major street/transit networks and future water servicing needs
- Outline a phased approach for future long-term development of the area
- Support the evolution of Toronto's only active port and continued employment growth over the next 30 to 50 years.



Water as a  
Resource



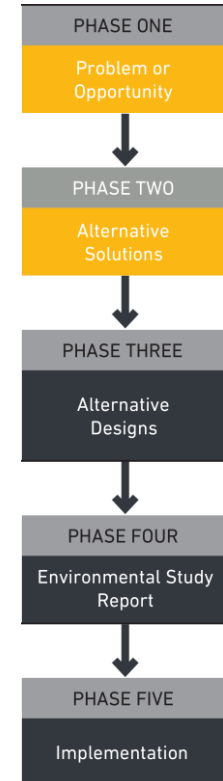
Municipal  
Servicing



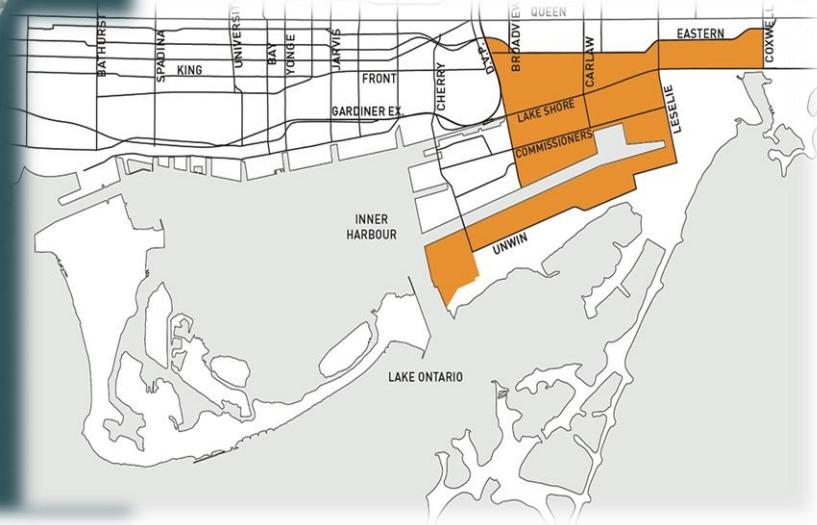
Streets



Transit



# The Port Lands (Present Day)



# Consultation



## STAKEHOLDER CONSULTATION



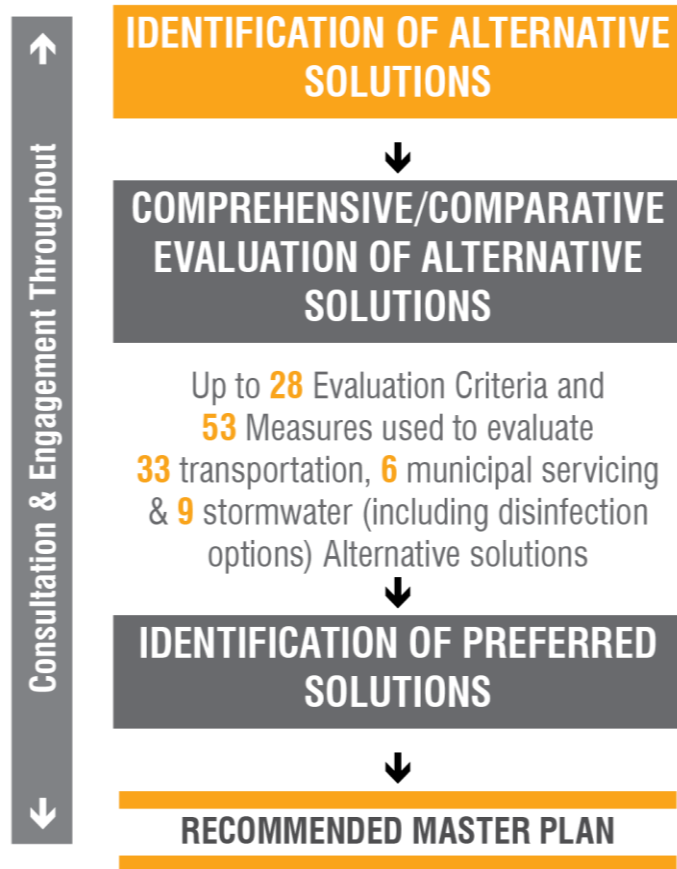


# Problems & Opportunities



# Vision & Objectives

- Creating an interesting and dynamic urban mix
- Connecting the Port Lands to the city
- Leveraging assets
- Developing a high quality public realm
- Contributing to the sustainable future of the city
- Providing flexibility and certainty in implementation



# Recommended Master Plan



Transit Prioritization



Minimum Lane Widths



Bike Lanes and Amenities



Wide Sidewalks



Accommodate Goods Movement



Street Trees and Pedestrian Amenities



Innovative Features



***Water as a Community Resource***

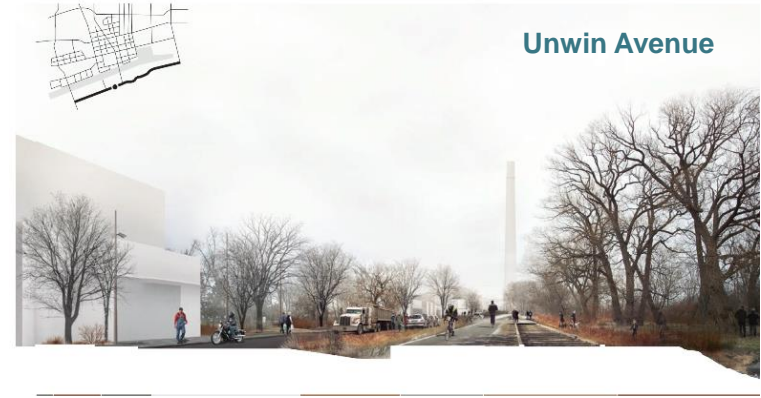




# The Port Lands & South of Eastern, 2065



# Desired Street Character



# Desired Street Character

Ship Channel and Water's Edge



Don Roadway



Cherry Street



Commissioners Street



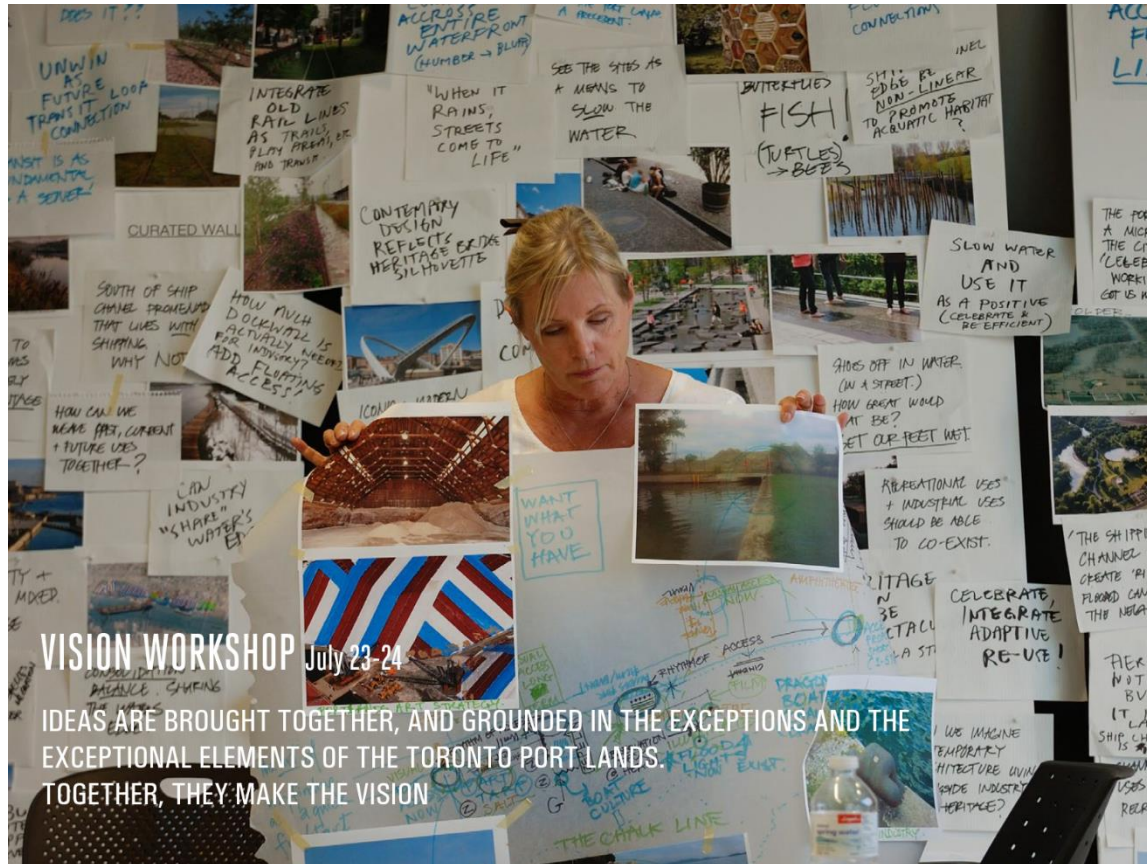


Water as a  
Resource

# **WATER AS A COMMUNITY RESOURCE**



# Inspiration



# Inspiration



# Design Criteria

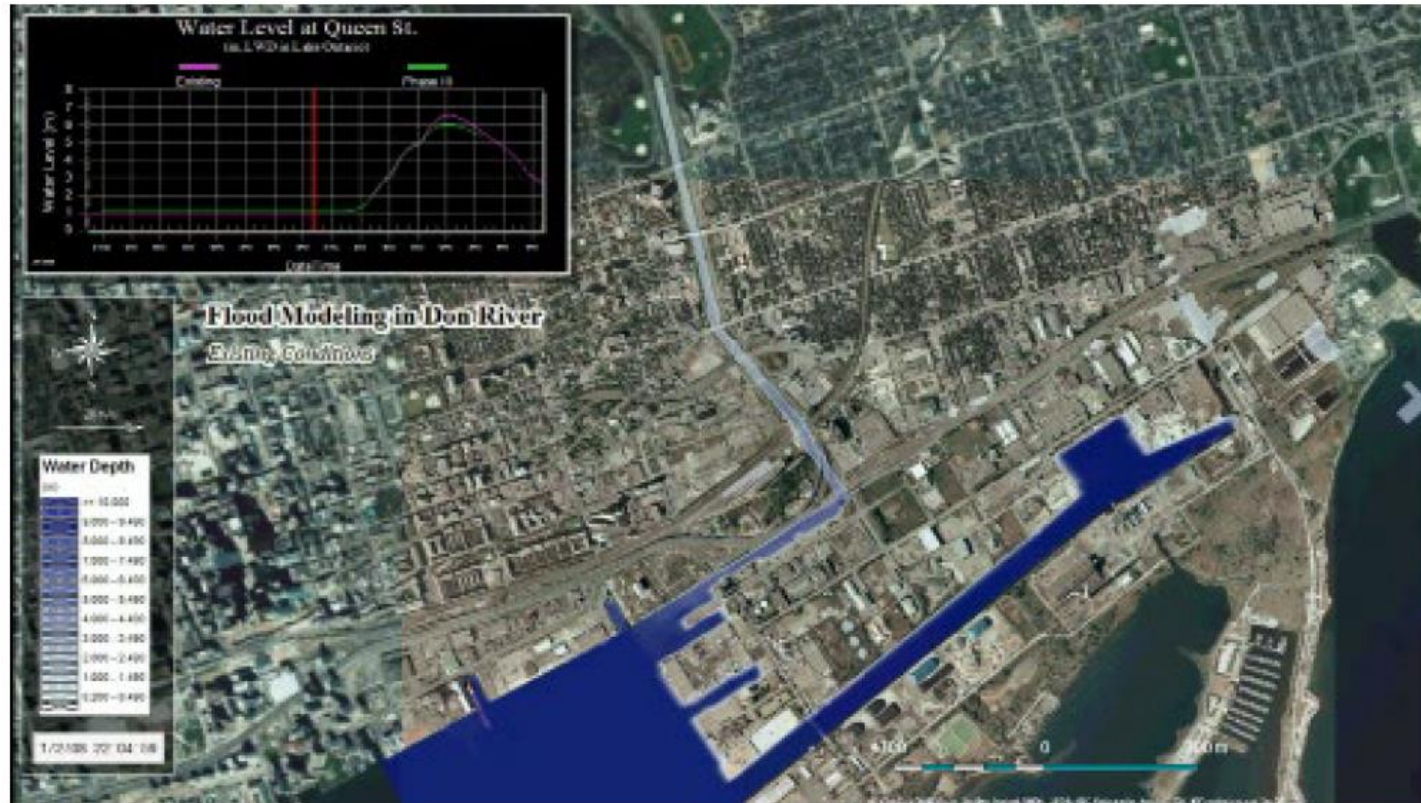
SOURCE

CONVEYANCE

TREATMENT



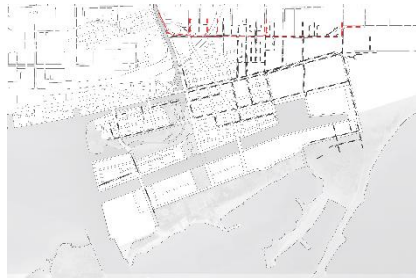
# Existing Conditions





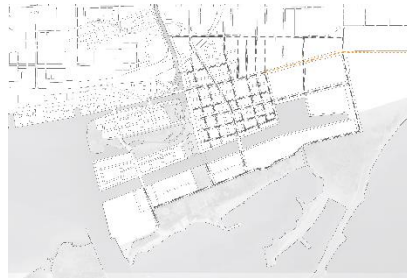
# Stormwater Management Alternatives

ALTERNATIVE 1: DO NOTHING



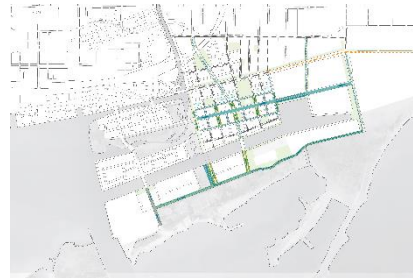
- Combined Sewer
- Stormwater Sewer

ALTERNATIVE 2: CONVENTIONAL APPROACH



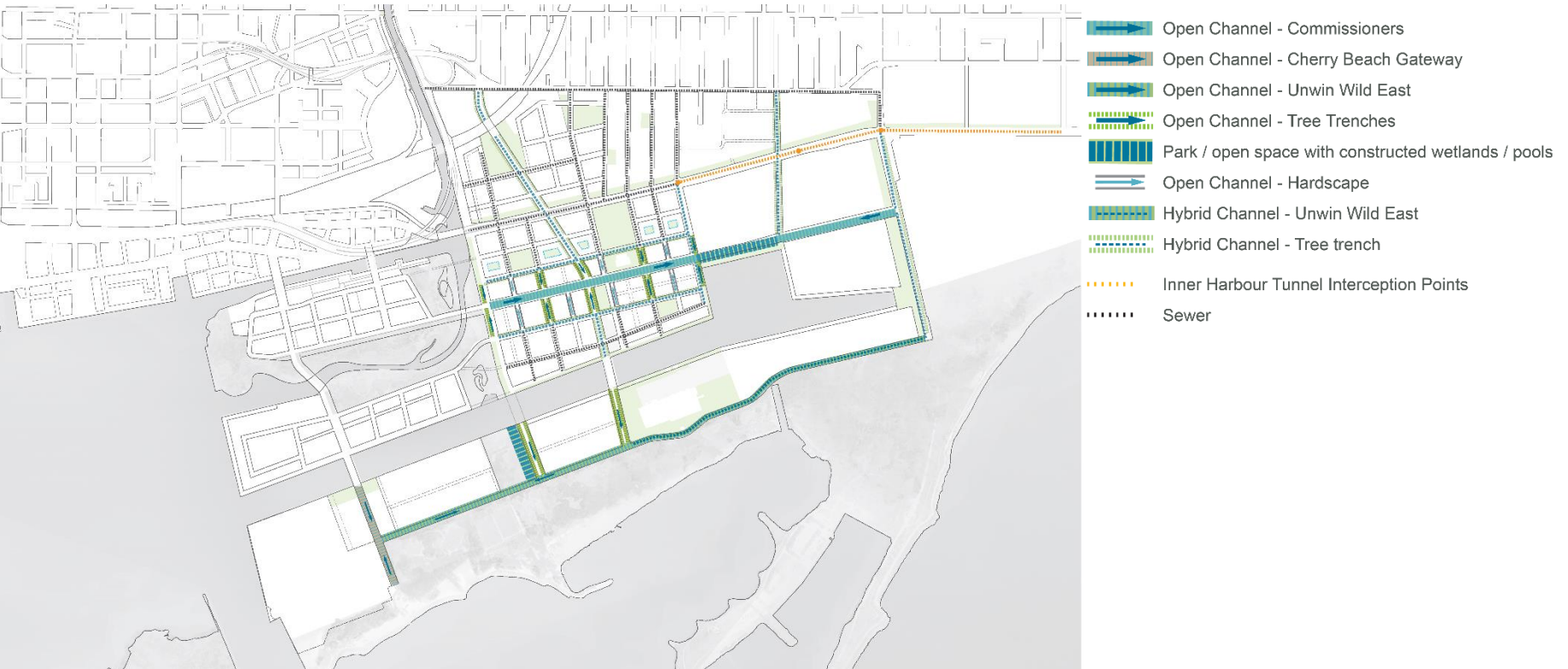
- Inner Harbour Tunnel
- Sewer

ALTERNATIVE 3: WATER AS A RESOURCE



- Open Channel - Commissioners
- Open Channel - Cherry Beach Gateway
- Open Channel - Unwin Wild East
- Open Channel - Tree Trenches
- Park / open space with constructed wetlands / pools
- Open Channel - Hardscape
- Hybrid Channel - Unwin Wild East
- Hybrid Channel - Tree trench
- Inner Harbour Tunnel Interception Points
- Sewer

# Preferred Solution: Water as a Resource



# Water as a Resource



1. Commissioners:  
Planted and Programmed Open Channel



2. Unwin:  
Bioswales



3. Broadview:  
Tree Trench Open Channels



4. Cherry:  
Beach Gateway Open Channel and Sand Filter

# Water as a Resource



COMMISSIONERS  
STORMWATER PARK



UNWIN  
WILDS BIOSWALE

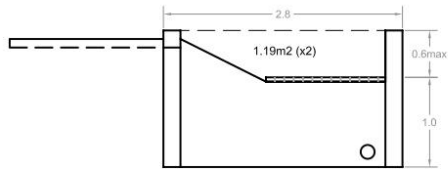


NORTH-SOUTH  
GREEN STREETS

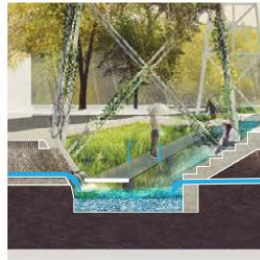


# Water as a Resource

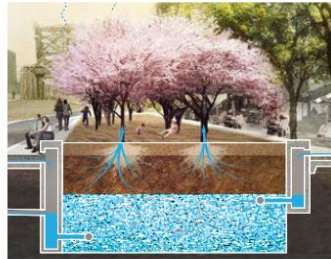
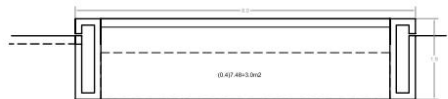
Urban Bioswales



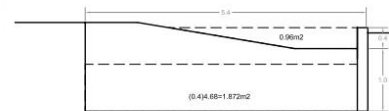
Commissioners Open Channel



Open Channel and Sand Filter



Unwin Channel/Swale



# Preferred Disinfection Locations



## OPEN CHANNELS

- Open channel - Commissioners
- Open channel - Cherry Beach gateway
- Open channel - Urwin Wildlife west
- Open channel - Tiroo branches
- Open channel - Handscape

## PLANTED HYBRID CHANNELS

(Combination of above ground open channel and sub surface sewer)

- Hybrid channel - Urwin Wildlife east
- Hybrid channel - Tiroo branch

## BLUE/GREEN PARKS + OPEN SPACE

- Open Space System
- Park/open space with constructed wetland/pools

## DISINFECTION LOCATIONS

- Preferred disinfection location
- Opportunity to explore and showcase innovative treatment methods, integrated into the open space system

# Overall Project Challenges

- Integrating old and new
- Preserving elements of the industrial and cultural features while building the future
- Integrating innovative approaches to water when traditional methods could also work
- Non-traditional project within the context of a traditional approval process (Class EA)
- Constantly evolving area (Gardiner, Villiers Island, other studies, etc.)