

Ashbridges Bay Treatment Plant Landform

Presented by: Lisa Turnbull, Sr. Manager
Project Management Services



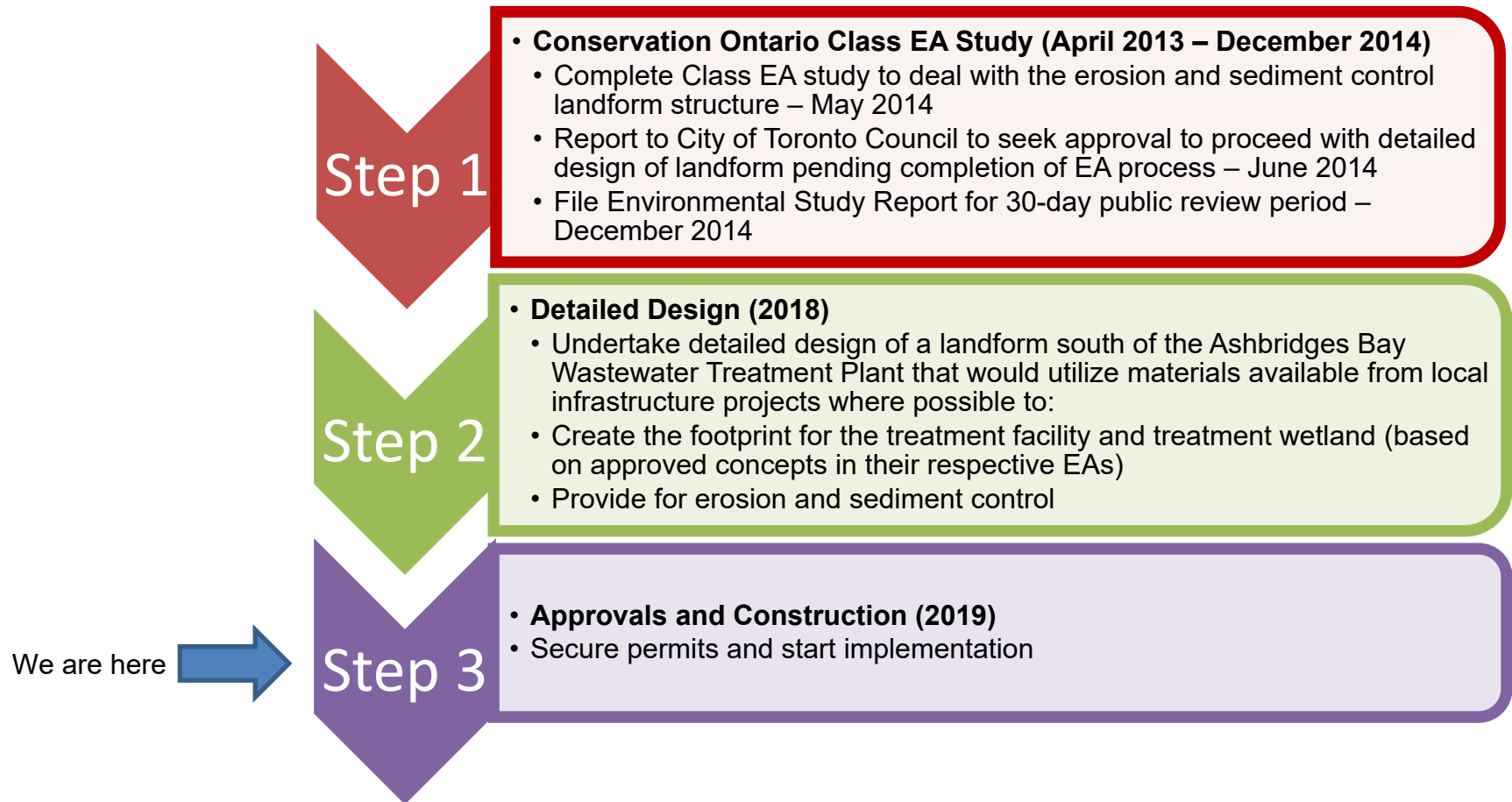
May 14, 2019

Presentation Outline

- Process and Timelines
- Class Environmental Assessment
- Overview of Detailed Design of the Landform
- Detailed Design
- Aquatic Habitat – Existing Conditions
- On Site Habitat Compensation and Enhancements
- Examples
- Draft Construction Phasing Plan

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Process and Timelines



Class EA Objective (2014)

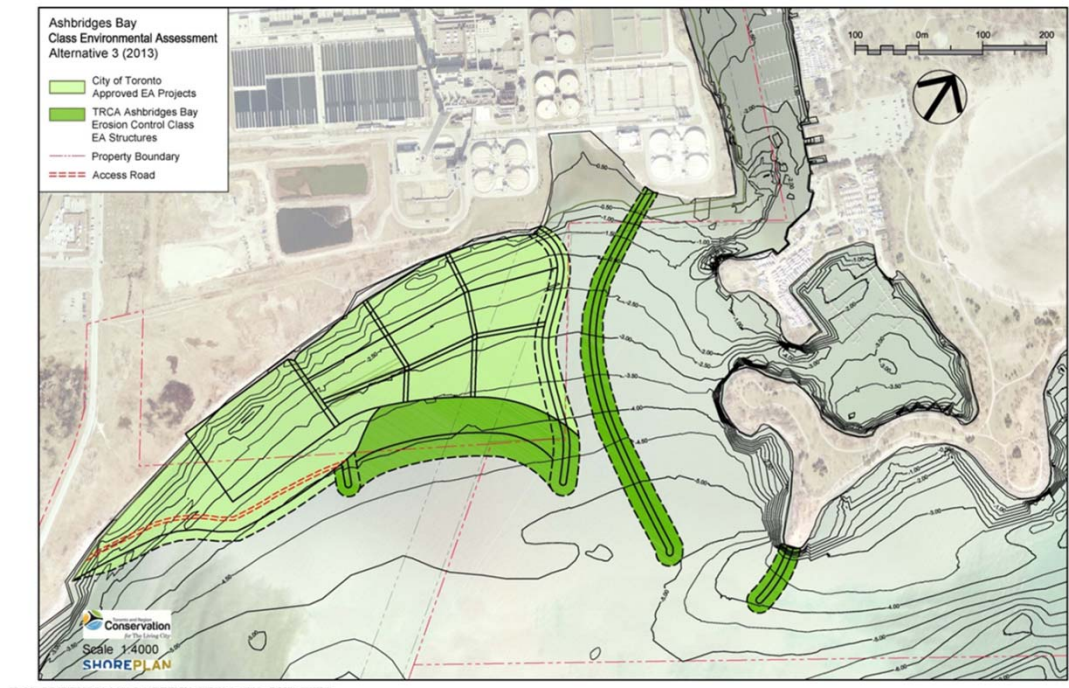
To identify a preferred solution that will mitigate the risk to navigation due to sediment erosion and deposition at the harbour entrance of Ashbridges Bay and Coatsworth Cut while considering the various approved facilities , planning initiatives and current uses in the study area.



Result of the Environmental Assessment

The preferred alternative provided:

- least impacts to water quality in the recreational areas with a potential positive impact on E.coli levels in the recreational boating areas;
- best integration of current Ashbridges Bay Wastewater Treatment Plant operations (sea wall gates) and flexibility with future approved City of Toronto infrastructure; and
- decades of safe navigation without on-going maintenance (dredging).



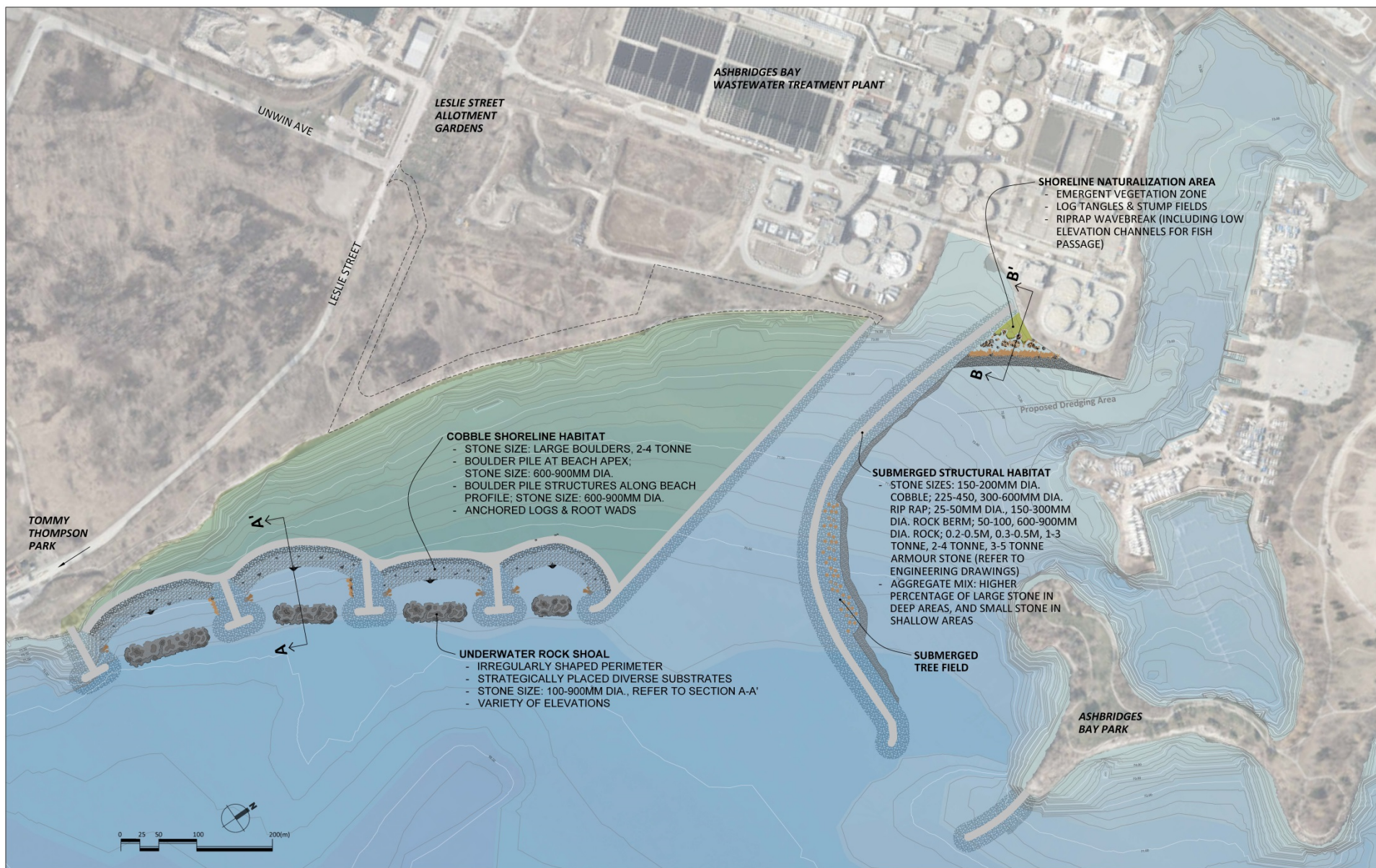


Aquatic Habitat – Existing Conditions



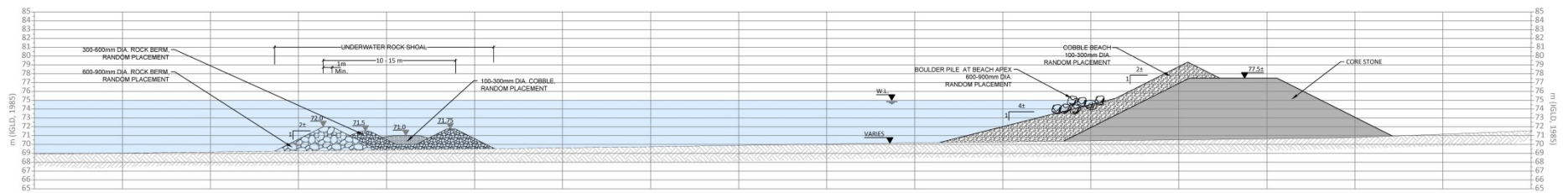
- Historically, Ashbridges Bay was a large marshland complex, originating as a delta formation at the mouth of the Don River.
- Before filling of the Bay began in the early 20th century, the fish community was linked to the Don River watershed.
- Today it is an open coast habitat, characterized by extensive wind and wave action and cold water - generally, fish production in open coast habitats is limited due to wave action, lack of structural habitat and rapidly fluctuating temperatures.
- Sheltered embayments exist at the Ashbridges Bay Yacht Club basin and Coatsworth Cut - In contrast to the open coast environment, sheltered embayment habitat is characterized by a lack of intense wave action, a substantial amount of riparian and aquatic vegetation, shallow water depths and warm to cool water temperatures.

Ashbridge's Marsh looking northeast, circa 1909
City of Toronto Archives, Series 376, File 4, Item 63

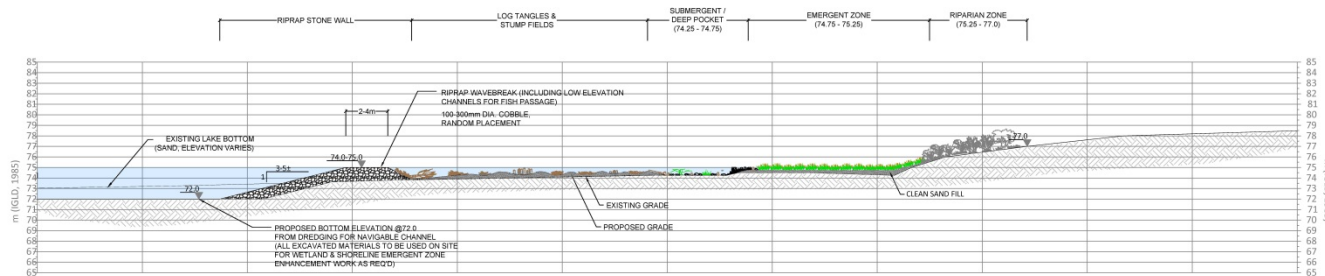


Ashbridges Bay Landform Project - Habitat Enhancement Plan

May 2018



SECTION A - A'
HABITAT ISLAND & COBBLE BEACH

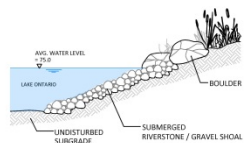


SECTION B - B'
NATURALIZED SHORELINE TYPICAL

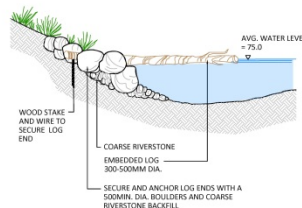


D4 SUBMERGED LOG TANGLES & STONE PILES
N.T.S.

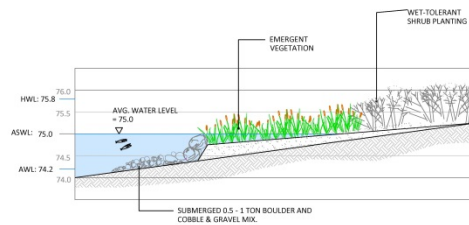
RIVERSTONE AND GRAVEL SHOAL ALONG SHORELINE TO BE MIX OF 50-150mm DIA. RIVERSTONE AND 20mm DIA. CLEARSTONE
INSTALL COARSER, LARGER STONE AT WATER'S EDGE, GRADUALLY TAPERING TO FINER GRADED MATERIAL ABOVE AHWL
PLACE OCCASIONAL BOULDER ALONG UPPER EDGE OF SHOAL
STONE SIZES TO BE CONFIRMED BY COASTAL ENGINEER.



D1 SHORELINE SHOAL
N.T.S.



D2 EMBEDDED LOG
N.T.S.



D3 SURCHARGED EMBAYMENT
N.T.S.



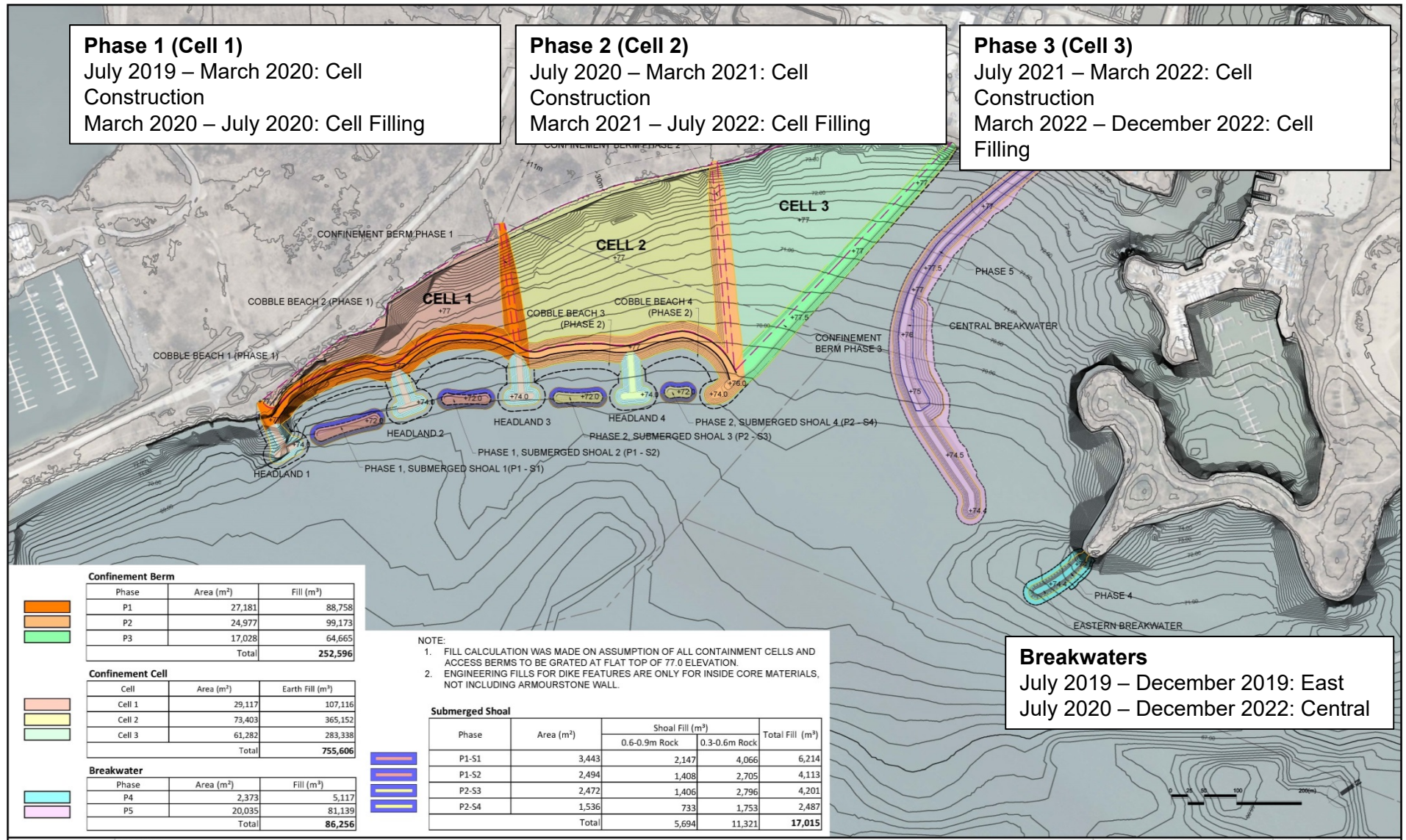
D5 VERTICAL SUNKEN TREES
N.T.S.

Breakwater and Shoreline Examples

Port Credit (below)
Burloak Waterfront Park, Burlington
(both at left)



Ashbridges Bay Landform – Draft Construction Phasing Plan



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