



## RANDLE REEF CONTAMINATED SEDIMENT REMEDIATION PROJECT

*Public Works and Government Services Canada – Ontario Region*

### BACKGROUND

The Government of Canada is committed to remediating 14 Areas of Concern (AOCs) within our waters on the Great Lakes; Hamilton Harbour in Burlington Bay is on this list. This commitment is part of the current Canada-United States Great Lakes Water Quality Agreement. The Randle Reef area of the Hamilton Harbour AOC consists of approximately 60 hectares of the harbour bottom contaminated with polycyclic aromatic hydrocarbon (PAH) and heavy metals. The sediments are contaminated from multiple sources over the past 160 years. Remediation of these sediments is the last major project required to fully restore Hamilton Harbour and remove it from the list of AOCs.

### PROJECT

The *Randle Reef Contaminated Sediment Remediation Project* is being coordinated between Environment Canada, the Province of Ontario, Hamilton Port Authority and local stakeholders including City of Hamilton, US Steel and others. Environment Canada is the program department currently leading the overall pre-implementation phase maintains responsibility for funding and has led the Environmental Assessment, including public consultations.

In 2008, Environment Canada asked PWGSC to be the technical and contracting authority for the project. PWGSC as a service provider to Environment Canada is managing the contracting and construction with a majority of the work being performed by private sector contractors and consultants. Hamilton Port Authority contracted for the containment facility design, receiving the final design documents in 2009. All funding partners have agreed to proceed under this design.

The Randle Reef Project involves the construction of an Engineered Containment Facility (ECF) of about 7.5 ha in size, and consisting of a peninsula attached to Pier 15. Once built, the ECF will immediately contain 130,000 m<sup>3</sup> of the most highly contaminated sediment. A further 500,000 m<sup>3</sup> of contaminated sediment will be hydraulically dredged, placed within the ECF and sealed beneath a cap. Residual contaminated sediment and undredged areas of lesser contamination of 45,000 m<sup>3</sup> will be covered over by a thin layer cap. The Project will manage a total of 675,000 m<sup>3</sup> of sediment and is budgeted at \$138.9M.



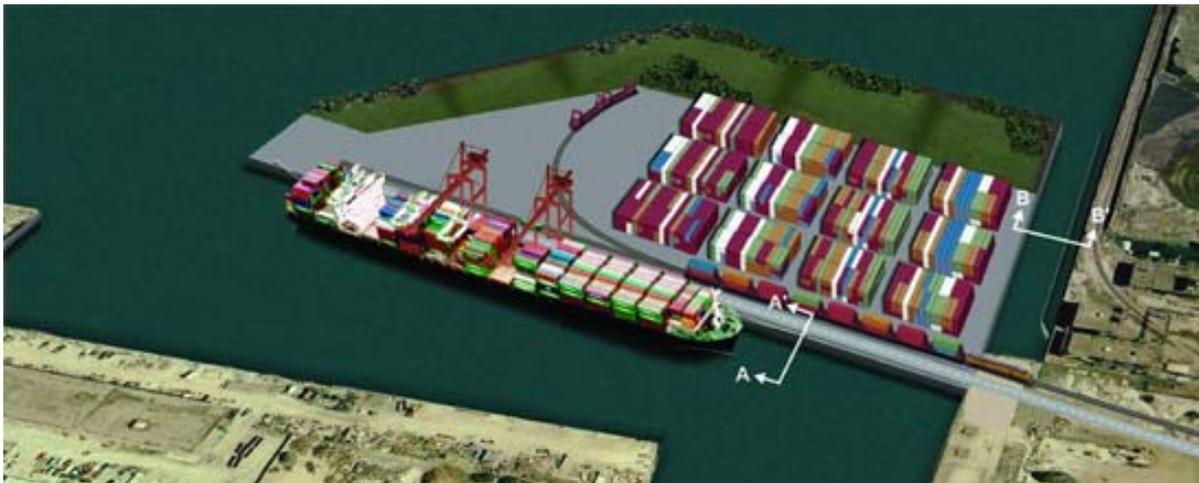
The project will proceed in three stages over the next eight years.

**Stage 1** - Construction of the ECF with two major contracts; construction and supervision. Construction scheduled over two years, 2014 – 2016.

**Stage 2 and 3** - Dredging of contaminated sediments and ECF dewatering and capping. Each stage will have a separate construction contract; supervision will be under one contract for both stages. Stage 2 is expected to take 3 years, 2016 – 2018, and Stage 3 over 3 years, 2018 – 2021.

PWGSC will contract with the design consultant, Riggs Engineering Ltd., to continue to act as the “Engineer of Record”, for all remaining stages of the project.

Following project completion, the Hamilton Port Authority will assume ownership of the containment facility and develop the site as port facilities. Remediation will improve water quality, reduce contaminant levels in marine life and remove current restrictions on navigation. This is a critical project that will lead to the restoration and eventual delisting of Hamilton Harbour as an Area of Concern in the Great Lakes.



Artist rendering of the completed Engineered Containment Facility over Randle Reef.