Regulatory Approach (Definition of Record of Site Condition Areas) Port Lands, Toronto

Prepared for

Waterfront Toronto

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Contents

Acronyms and Abbreviations

CBRA	Community Based Risk Assessment
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
m^2	square metre
m^3	cubic metre
MOECC	Ontario Ministry of Environment and Climate Change
O. Reg.	Ontario Regulation
RA	risk assessment
RSC	record of site condition
RM	risk management
RMM	risk management measure
ToR	Terms of Reference
TRCA	Toronto and Region Conservation Authority

Tab C. Regulatory Approach (Definition of Record of Site Condition Areas)

C.1 Background

The Port Lands Flood Protection and Enabling Infrastructure Project (The Project) of over 200 hectares of former industrial land (the Study Area) requires a mechanism to protect human health and ecological receptors over the life of the development. The Environmental Assessment (EA) describes the use of a risk assessment (RA) and risk management (RM) process to develop protection measures and means to prevent the movement of contaminated soil and groundwater into naturalized areas. Features such as fill and soil cover barriers would be determined through RA/RM processes, which would also guide the reuse of surplus excavated soil for backfill throughout the scope area.

In Ontario, there are two approaches to RA and RM:

1. A site-specific risk assessment is a recognized process to assess risk and determine acceptable levels of contaminants of concern for an individual property with mechanism to protect human and ecological health. The process is formalized through Ontario Regulation (O. Reg.) 153/04 and has defined inputs, content, and regulated Ontario Ministry of Environment and Climate Change (MOECC) interface. Based on data from historical and current investigations, several areas within the Study Area have confirmed soil or groundwater contamination as a result of extensive historical industrial activities.
2. In instances where contaminants extend across a large area, another approach to a RA is a Community Based Risk Assessment (CBRA).

The same science-based risk evaluations and RA procedures are used for both approaches. For the DMN project, a CBRA most appropriately encompasses the larger study area and the source interaction within the study area.

The first step in a CBRA is development of a Terms of Reference (ToR). A ToR for CBRA will be completed according to the MOECC's August 2014 draft guidance (MOECC, 2014). The ToR will document environmental conditions, data gaps, and proposed investigation programs, as well as the planned approach for developing exposure point concentrations, completing human health and ecological RAs, and identifying risk-based soil and groundwater intervention values. This ToR will document the anticipated optimal remediation and risk management measure (RMM) Strategy for the Study Area, and will outline the approach to developing a detailed soil and groundwater management plan for the Study Area. It will also document the proposed communication and consultation plan and intended timelines for the CBRA. Collaboration meetings will be held with the MOECC and other agencies and partners in the project such as Aquatic Habitat Toronto, Fisheries and Oceans Canada (DFO), the Ontario Ministry of Natural Resources, the Toronto and Region Conservation Authority (TRCA), and Environment Canada. When the ToR has been completed and endorsed by the MOECC, the CBRA will begin. Once the CBRA is complete, it will be acknowledged by the MOECC.

C.2 Current and Future Land Uses

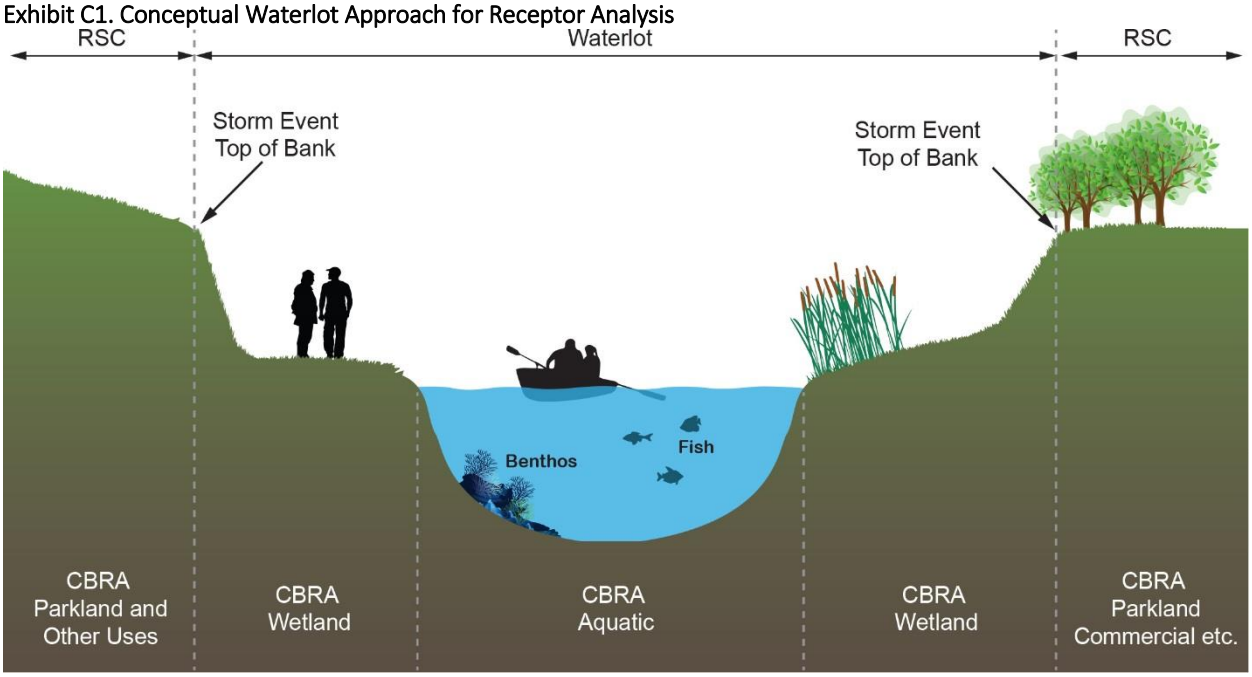
Currently, the Port Lands is primarily vacant, with portions used for commercial, community, and industrial activities and recreational space. Historically, lands had been used for industrial purposes since the early 1900s, when the area (formerly part of Ashbridges Bay) was infilled with material dredged from the east end of the Toronto Harbour (Golder, 1992). The proposed redevelopment for the Port Lands aims to rezone the former industrial lands to parkland, residential, institutional, community,

and commercial land uses. The concept precinct plan for the Study Area is captured in Figure 3 which shows the key development of residential development blocks and parklands.

The primary goal of the redevelopment, which incorporates the creation of the River Valley and Essroc Quay land, is flood protection. In the Essroc Quay area, a land base is being created as an early component of the DMN Project to facilitate relocation of Cherry Street Bridge and to allow increased flood capacity. This shore infill project is expected to create 42,000 square metres (m^2) of new land. The naturalization of the Don River involves providing flow capacity for the Don River through the Port Lands in a River Valley and spill way. Approximately 1.2 million cubic metres (m^3) of soil will need to be excavated to prepare for the River Valley Waterlot. The River Valley project is expected to create approximately 200,000 m^2 of new waterlot. The waterlot has been defined as the channel from top-of-bank to top-of-bank that will created for flood protection. The area below top-of-bank will include water with purpose-built trails for human access and wetlands and an area of rocky shore, with limited access provided by paths and boardwalks to reduce and manage the potential degradation of wetlands ecology.

Both the land and waterlot areas will be filled with soil or aggregate, or both, to suit the purpose of the future land use. The fill material will be selected specifically to meet the end-use objectives, whether that is ecological; wetland setting; or human health residential exposure, or a combination of receptors. The fill procedures will consider the Shore Line Infill Guidelines (MOECC, 2011) under the framework of the CBRA. The CBRA will define the acceptable qualify of the fill material in each created area. An overview of the conceptual approach for the Waterlot is presented in Exhibit C1, which shows the human and ecological receptors that are likely to be present in the future condition.

Exhibit C1. Conceptual Waterlot Approach for Receptor Analysis



C.3 Consultation on Regulatory Approach

Several meetings have taken place in September 2015, to develop a regulatory approach to the RA/RM process described in the EA. These included:

- September 10, an update meeting was held with the MOECC
- September 14, Port Lands Environmental Working Group presentation and consultation
- September 17, Aquatic Habitat Toronto, presentation and consultation

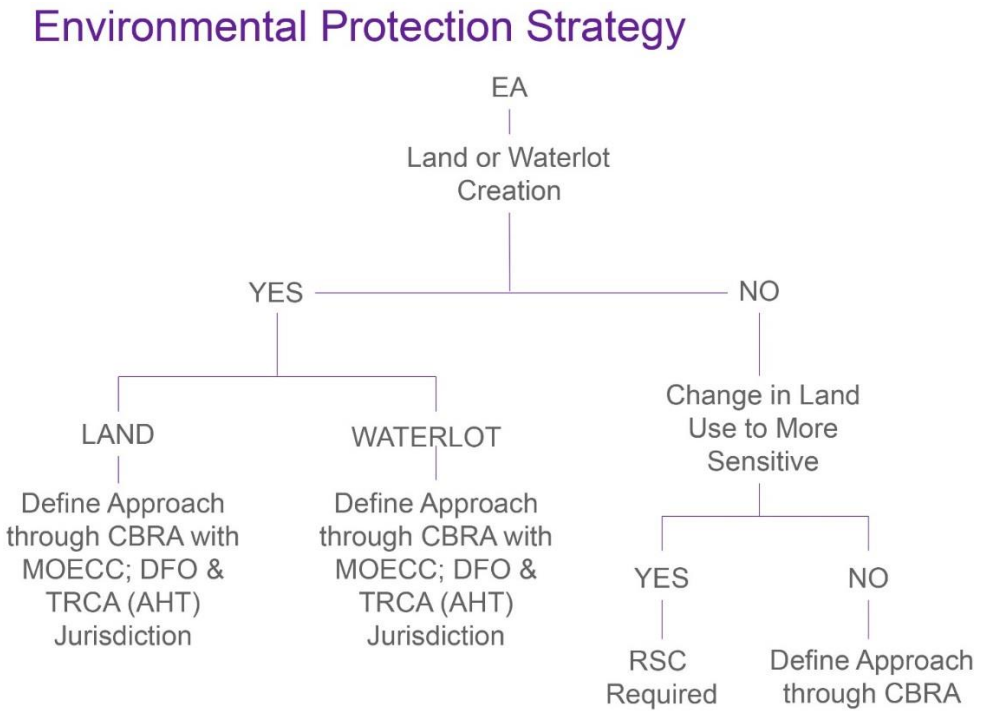
Moving forward through the CBRA ToR and CBRA, several concerns identified during the September consultations should be addressed:

- The definition of Waterlot and confirmation that for the purposes of this project, the Waterlot is from top-of-bank to top-of-bank
- Limited liability protection provided by records of site condition (RSCs) for former owners from MOECC orders unavailable
- CBRA working group and review agencies should be formalized and commitment received from all parties to participate and review the CBRA
- The application of the CBRA as the mechanism to develop the overall EA monitoring program should be reviewed
- Whether the mechanisms to maintain RMM commitments post-construction are required and, if so, what form these would take
- The implementation program is to be defined and coordinated with DFO authorization, and any monitoring and financial assurance for TRCA implementation, consistent with development approvals be assessed

C.4 Regulatory Approach

CBRA has been selected as the overarching approach to evaluate risks, design soil and groundwater management, and develop RMMs for the Study Area. The CBRA will address the lands in the Study Area including the Waterlot, Essroc Quay, and interior or future upland development blocks and parkland areas. The MOECC indicated they do not have the ability to provide an acknowledged RSC or approved RA for a Waterlot, nor is an RSC required for land created in Essroc Quay. Aside from these areas, however, additional regulatory procedures need to be evaluated. In O. Reg. 153/04, a change in land use to more sensitive land use requires the completion of an RSC and acknowledgement by the MOECC. The following Exhibit C2 shows a decision process to select the regulatory mechanisms for the areas within the Port Lands.

Exhibit C2. Decision Tree



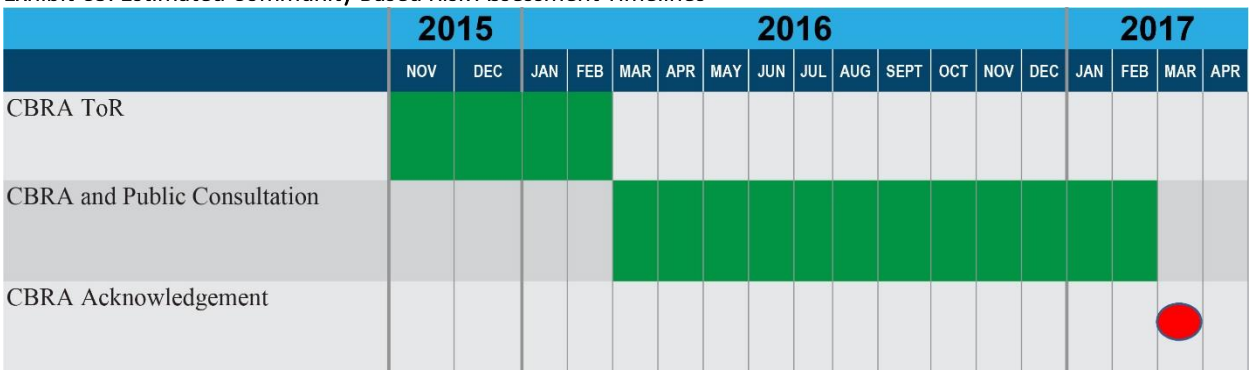
C.5 Definition of Record of Site Condition Areas

By analyzing the future land use (a change in land use from industrial, commercial, community land use to residential, parkland, and institutional land use), it was possible to identify the applicable land changes and define locations where RSCs will likely be required. The analysis is presented in Figure 34. Land and Waterlot creation areas (Essroc Quay and the River Valley) do not require RSCs. Roads and community land uses, as well as commercial land uses, also do not require RSCs because they are not changing to a more sensitive land use.

C.6 Timelines

The CBRA ToR development started in November 2015 and was completed in January 2016. Several meetings with the MOECC and participating agencies will be arranged to consult and review the CBRA ToR. Once the ToR is complete, it may possible for the CBRA to start in March 2016 and conclude within 12 months, by March 2017. A 12-month schedule is very aggressive and would require focused review teams and advisory sessions; project risk contingencies should include a delay in CBRA completion. Exhibit C3 illustrates the estimated CBRA timelines.

Exhibit C3. Estimated Community Based Risk Assessment Timelines



C.7 References

Golder Associates (Golder). 1992. Phase I Environmental Site Assessment, 150 Commissioners Street. Prepared for CP Express and Transport (CPET). July 1, 1992

Ontario Ministry of the Environment and Climate Change (MOECC). 2014. *Guidance for Conducting Community Based Risk Assessments*. DRAFT FOR DISCUSSION. August.

Ontario Ministry of the Environment and Climate Change (MOECC). 2011. *Fill Quality Guide and Good Management Practices for Shore Infilling in Ontario.* March