



Environmental History and Current Site Conditions

The geology of the site varies significantly across the property, and is characterized by a layer of asphalt at ground surface with mixed fill conditions underneath, that overlies naturally occurring lake sediments. During the construction of the piers, sand and gravel fill material was placed along the shoreline and typically occurs at depths of 0.3 to 4 meters below grade (mbg), but is observed at a maximum depth of 9.5 mbg near the dockwall and shoreline of Lake Ontario. Naturally occurring clayey silty soils occur at depths of 0.3 to 9.5 mbg, often containing sand and peat layers, and underlain by weathered shale bedrock starting at 10 mbg.

Based on a review of soil and groundwater information available for the site, the following conclusions have been observed:

- Previous environment reports have identified some contamination on the site within the surface layers, but the naturally occurring site sediments remain largely uncontaminated;
- The site contamination was probably caused from the mixed fill used to construct the piers and historic marina operations used chemicals associated with boat repair and refueling;
- Past environmental investigations have identified metals and inorganic contaminants, petroleum hydrocarbon compound (PHC), and polycyclic aromatic hydrocarbon (PAH) concentrations in soils that exceed the current applicable Ministry of Environment (MOE) standards; and
- Based on an analysis of past investigations, there were no chemical contaminants observed in groundwater that exceed the applicable MOE standards.

Environmental Standards and Approvals Process Required for Redevelopment

Given the current land uses and the protective nature of the asphalt parking lot, the contaminants of concern do not currently pose an immediate adverse public health impact. An appropriate environmental management approach either by remediation, risk assessment, soil removal, or a combination will be required, however, to mitigate the identified soil impacts and prepare the site for future more sensitive land uses (e.g. residential, parkland), once a development plan is determined.

MOE Record of Site Condition (RSC) Process

A mandatory RSC is required if the site is to be re-developed for parkland, residential, or mixed residential/commercial use. The MOE RSC process provides documentation of the final environmental condition of a property once a remedial strategy is complete, thereby offering greater clarity for new residents, vendors, purchasers, and lenders. Before changing a property to a more sensitive land use such as residential or parkland, it is mandatory to file a MOE RSC to demonstrate that the soil and groundwater on the property meet applicable generic and/or risk-based standards for more sensitive land uses.

Potential Future Remediation Solutions (once a Redevelopment Strategy is Determined)

Once a redevelopment strategy is determined, an appropriate environmental management approach will need to be developed to mitigate the potential contamination impacts and prepare the site for future more sensitive land uses. Regardless of the future land uses for the Site, some excavation and management of impacted surface soils will be required during redevelopment to accommodate potential subsurface structures (e.g. underground parking structures, foundations, utilities, etc). Based on the types and concentrations of chemicals identified in past investigations, the management of contaminants can be achieved through some soil removal due to the construction of parking garages, foundations, and parkades, and the deployment of risk assessment.

Sustainable remediation strategies include a range of approaches from risk management measures, remediation, and reuse of uncontaminated fill material. A sustainable remediation strategy could be employed that involves soil screening to determine which soils could be reused onsite, the creation of soil storage areas, and soil remediation that involves removal, segregation, re-use, and disposal of contaminated soils.