

## Proposed Waterfront Toronto Port Lands Soil Management Facility

### **Public Open House**

October 6, 2009 6:00 – 8:00 p.m.



### **Project Team**

#### Waterfront Toronto

David DuBois Executive Director, Geo-Environmental Services

Raffi Bedrosyan Director of Port Lands

Kevin Bechard Director of Environmental Approvals

Jane McGrath Designated Waterfront Area Environmental Soils Project Manager

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#### **ENVIRON Soil and Groundwater Management Team**

Steve Desrocher Senior Environmental Geoscientist/Project Manager

Kim Suedkamp Wells Human Health and Ecological Specialist

Paul Geisberger Air and Noise Specialist

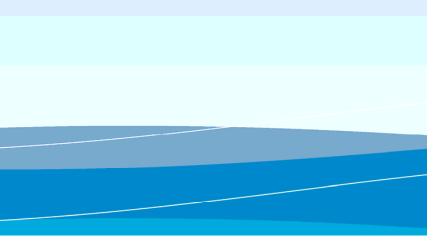
Kevin Warner Noise Specialist

Scott Hayter Remediation Specialist

#### **Stakeholder Liaison**

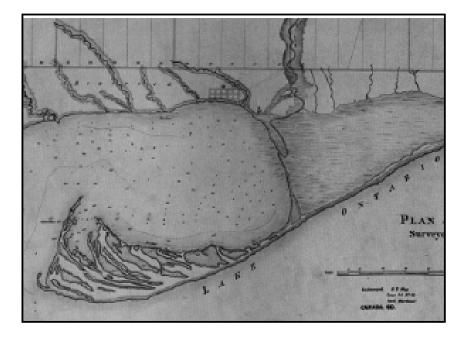
City of Toronto Toronto Economic Development Corporation (TEDCO) Toronto and Region Conservation Ontario Ministry of the Environment



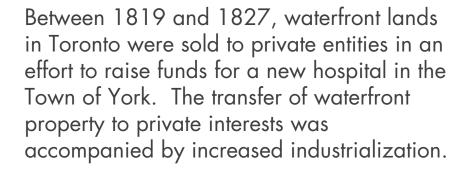


#### **Historical Land Use**

Toronto's waterfront lands have an industrial history of over 180 years that date back to the 1820s. By the late 1790s, waterfront lands in Toronto were providing important access for commercial navigation that extended two to three miles upstream in the Lower Don River.



The Lower Don River as an important navigation route and shipping channel is 1783. Source: Cultural Heritage Landscape Inventory Report





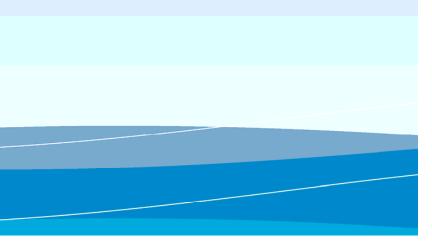
Commercial shipping and navigation along Toronto's waterfront lands in 1893. Source: Cultural Heritage Landscape Inventory Report



Toronto waterfront lands at the peak of industrial manufacturing in 1964. Source: Cultural Heritage Landscape Inventory Report

In the early 1900s, much of the waterfront lands were acquired by railroad companies that converted the land from housing to supporting services such as foundries, tanneries, fuel storage and rolling stock manufacturers. Manufacturing along waterfront lands in Toronto peaked in the 1960s and was subsequently followed by a progressive loss of jobs in the industry over the next three decades into the 1980s.





#### **Revitalization and Look to the Future**

The decline in industrial activity since the 1960s left in its place a patchwork of underutilized lands that are being revitalized through Waterfront Toronto's mandate. The long history of industrialization poses unique challenges because environmental issues remain and must be identified and remedied prior to redevelopment of the land to protect human health and the natural environment. This revitalization is the focus of ongoing efforts by Waterfront Toronto depicted in the schematic below.

Waterfront Toronto is committed to making the city's waterfront both a Canadian and global model for sustainability. What we do on the waterfront can and will set new standards for best practices not only in Canada but throughout the world.

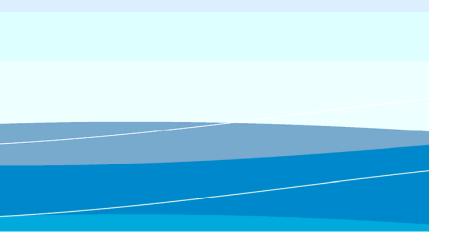
Remediation efforts within the waterfront will include excavation and removal of contaminated soils and are expected to generate an excess of 2,000,000 cubic metres of impacted soils that will need to be managed.

These soils are a resource that Waterfront Toronto intends to reuse and recycle for beneficial purposes such as new parkland development.



#### Waterfront Revitalization Plan





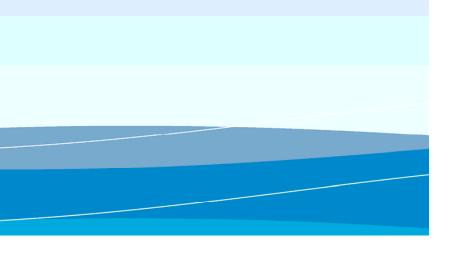
### **Soil Management Approach**





The Soil Management Facility will operate to ensure that:

- Soils within the Designated Waterfront Area (DWA) are natural environment;
- extent possible within the DWA;
- placement of soils to the approval of the Ministry of the Environment and satisfaction of other stakeholders and (RSC) for residential and parkland use;
- Sufficient soils of appropriate quality are available when required to support Waterfront Toronto's revitalization sources outside of Toronto, and
- monitored by Waterfront Toronto's Soil Management system (IMS).



managed in a way that is protective of human health and the

• Soils are managed in a sustainable manner, with soils being managed as a resource to be reused and recycled to the

• Soils are characterized, processed and tracked with a degree of rigor suitable to document the movement, treatment and suitable to support the filing of Records of Site Condition

activities, while reducing the need for trucking of soils from

• Waterfront Toronto will be identifying and retaining qualified operating contractors having experience in the operation of similar soil management facilities. Soil management will be Consultant, using an electronic information management

## **The Proposed Soil Management Facility**

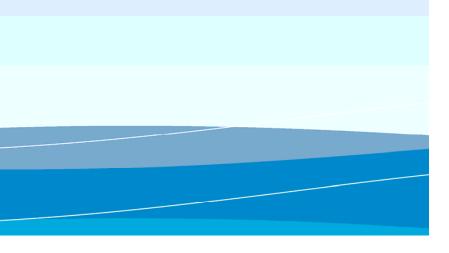
Waterfront Toronto to establish a Soil Management Facility within the Port Lands. A first phase of the Soil Management Facility is being proposed that will receive and store contaminated soils until a later phase when a soil treatment facility is established within the SMF.



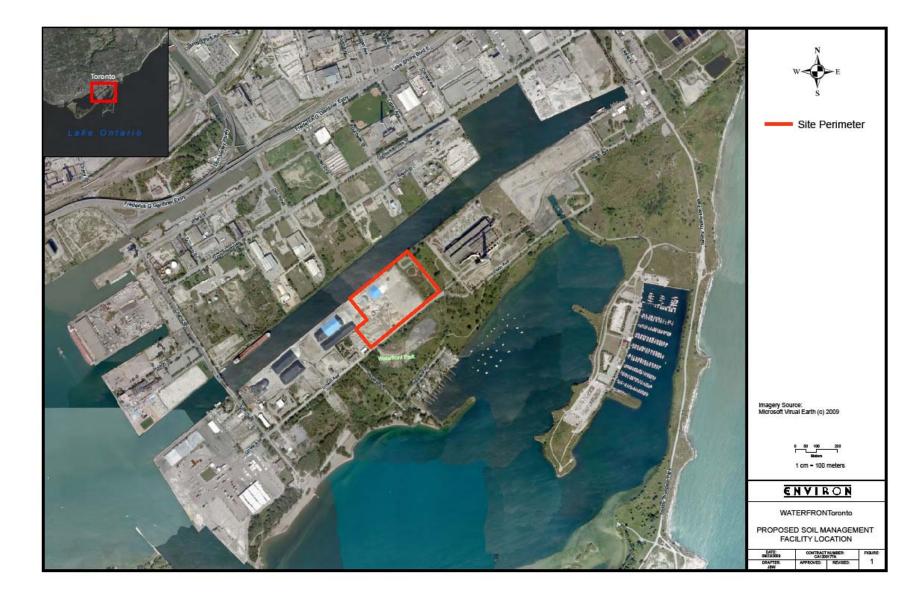


Soil washing Photo source: Biogenesis

- Soil Management Facility Stockpile Operation will include areas for receiving, sorting, and storing contaminated soils that are suitable for on-site treatment and subsequent reuse after the treatment phase of the Soil Management Facility is operational.
- Strict criteria will be implemented to ensure that incoming soils are acceptable for on-site treatment and do not pose unnecessary risks to human health or the natural environment or as hazardous soils.
- Soil processing and treatment operations will be added to the Soil Management Facility once sufficient soils have been stored to commence treatment.
- Soils will be treated to a standard that allows their reuse within the waterfront, reducing the need for trucking and importation of soils from outside the City of Toronto.
- The objective of this facility is to create a local facility for the recycling and reuse of soils that originate within the City of Toronto.



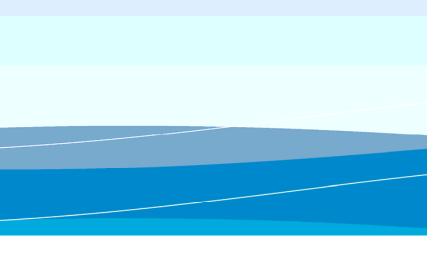
## Site Location and Conditions



- reuse.



The Soil Management Facility is proposed for an approximately 8.2 hectare site at 294, 320, and 348 Unwin Avenue.



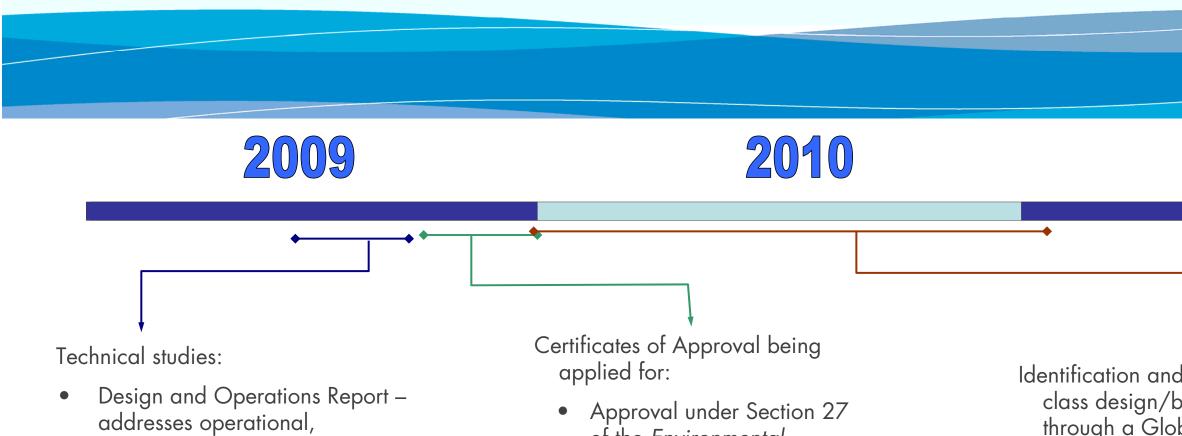
• The revitalization of the Waterfront Area depends on the ability to treat soils to an environmental condition that allows them to be reused in future residential, parkland and commercial areas.

• The proposed facility is intended to treat soils to meet a condition suitable for

• All lands to be occupied by the facility are currently owned by the Toronto Economic Development Corporation (TEDCO), and will be used by Waterfront Toronto for a duration sufficient to remediate impacted soils and waterfront redevelopment, which may be a period of 20 years.

• The current zoning for the site is industrial, and the proposed site of the Soil Management Facility is currently being used for aggregate and road salt storage. The proposed use of the site as a soil management facility is consistent with this current zoning.

## **Process and Proposed Timeline**



- sustainability, and mitigation best practices
- Air and Noise modelling ensure site design and operations are protective of the public and the natural environment
- Stormwater design and management plan – ensures protection of the aquatic environment

- of the Environmental Protection Act for **waste** management
- Approval under Section 9 of the Environmental Protection Act for **air and noise**
- Section 53 Approval of the Ontario Water Resources Act for **stormwater** design and management

Identification and selection of a worldclass design/build/operate contractor through a Global Request for Qualifications (RFQ)/Request for Proposal (RFP) process

Two phases:

- Management Facility is operational





• A stockpiling phase where soils are sorted, staged, and stored for later treatment when the permanent Soil

• A treatment phase when the Soil Management Facility is fully operational to remediate contaminants in soils to a standard protective of human health and the natural environment, and compliant with applicable regulations

### **Soil Management Facility Operation Plan**

Waterfront Toronto is submitting an application to the Ontario Ministry of the Environment for a Certificate of Approval under Section 27 of the Environmental Protection Act to store, transfer, and process soil, and debris at the Soil Management Facility (SMF)





will include:

- Unwin Avenue
- site

#### Features of the Soil Management Facility

• Primary and controlled access from

•Pre-testing of incoming soil quality to ensure consistency with the operating capabilities and approvals for the

• Tracking of incoming soil quantities through a weigh station at the site entrance to control maximum daily and annual quantities accepted

•Dust control measures using specialized applications of impermeable covers

•Ambient air monitoring program to evaluate and track pollution levels on the site and at the perimeter to protect human health

•Stormwater management and runoff control to prevent contaminants from leaching into groundwater and prevent disposal of untreated runoff from the soil stockpiles

# **Mitigation Measures Applied under Certificates of Approval**

#### Best Management Practices will be established and applied under Certificates of Approval (C of A). These include:

- Limitations on stockpile height less than existing
- Dust and runoff control required under Certificates of Approval
- Air Monitoring required under Certificates of Approval



Truck Traffic Management Plan – truck scheduling and routing to reduce impacts to other stakeholders



Biodegradable polymer application photo source: SoilTac



Continuous particulate sampler photo source: Rotek Environmental



Self-contained truck wash photo source: Hydroblast



