



## Soil Recycling Pilot Facility Fact Sheet

Waterfront Toronto is committed to making the city's waterfront a model of sustainability. What we do on the waterfront can and will set new standards for best practices not only in Canada, but around the world. Waterfront Toronto is conducting a soil recycling pilot in the Port Lands as part of our Soils Management Strategy to determine the viability of treating and reusing impacted soils as an alternative to dig-and-dump.

The purpose of the soil recycling facility is to treat soils near their source, divert soils from landfill, and provide a source of treated soil that can be used in waterfront revitalization projects.

Prior to committing to a full scale soil recycling facility, Waterfront Toronto is constructing a smaller-scale recycling pilot facility.

Remediation efforts within the waterfront include the excavation and removal of contaminated soil, which is expected to generate in excess of two-million cubic metres of impacted soil. Soil treatment, remediation, and reuse will prevent the excavated soil from being transported to landfill. Recycling soil would remediate it to an environmental condition that allows it to be reused.

The proposed pilot is a first step in the larger plan to treat contaminated soil to an environmental condition that allows it to be reused in future residential, parkland and commercial areas. Conducting the pilot will enable us to better assess the effectiveness and economic performance of the technologies and optimize operations before developing a full-scale facility.

The pilot will process up to 50,000 cubic metres of soils in the pilot phase of operation employing the newest and best technologies available to treat contaminated soils. The pilot proponents, DEC and Tetra Tech, will use soil washing, complemented by field trials of a number of other cutting-edge technologies. Soil-washing is a technology that has been successfully used to promote the recycling of soils in several other countries.

The goals of the pilot are to identify the range of treatment options and costs of remediating soil; to confirm that impacted soil can be treated to environmental standards set by the Ministry of the Environment; and to showcase treatment technologies.

The Waterfront Toronto soil recycling pilot project will be the only known current application of a soil washing-based pilot plant in Canada. A previous pilot was conducted by others in the Port Industrial District in 1998.

Soil washing is a technology that has been used to promote the recycling of soils in other countries. As of 2007, 37 field-scale applications of soil washing had been conducted in addition to approximately 30 laboratory scale trials.

Soil washing has been used at many large-scale cleanup sites in the US, including Miami Harbor, Fox River (Wisconsin) and the King of Prussia Superfund Site

Both of the pilot test operators for the Waterfront pilot, DEC and Tetra Tech, have operated similar facilities in Europe. DEC operates three soil recycling facilities in Belgium, and Boskalis Dolman, a subsidiary of Tetra Tech, operates the five Dutch soil recycling facilities.

## **PROJECT PROPONENTS AND TREATMENT APPROACH**

### **DEC**

DEC is a private Belgian limited company and part of the DEME group. DEME is an abbreviation of Dredging, Environmental and Marine Engineering and is a Belgian holding company that carries out an extensive range of marine and environmental activities.

DEC specializes in soil, groundwater and sediment treatment, soil remediation, waterworks, recycling techniques, capping and remediation of landfills and the redevelopment of brownfields, providing technical, engineering and operational support for all projects. DEC's clients include the petroleum industry, mining and quarry industry, metallurgy, government agencies, general contracting companies, consultants, project developers and waste-processing companies.

DEC has considerable expertise in all current remediation technologies and reviews all remediation projects to determine the most appropriate technology.

Significant consideration is given to determining the appropriate technology/technologies employed to ensure the solution uses the most sustainable methods possible.

DEC will employ soil washing techniques in a full scale self-contained plant. In addition to soil washing, DEC has proposed a pilot test approach that integrates a number of technologies: complementary parallel lab trials using Bioremediation, Thermal desorption, Chemical oxidation, and Stabilization/solidification methodologies in field scale trials.

**Tetra Tech Canada Construction Inc.**

Tetra Tech Construction Canada Inc. (Tetra Tech) is one of the largest environmental consulting, engineering, remediation and construction companies in North America. Tetra Tech has teamed with Stuyvesant Environmental Contracting Inc. (SECI), a subsidiary of Netherlands-based Boslealis Dolman bv. This team has conducted the world's largest soil/sediment remediation project, a 10 year project in the Lower Fox River in Green Bay, Wisconsin, USA.

Tetra Tech's primary soil treatment approach will use a mobile soil washing treatment plant that will be mobilized to the site. Supplemental treatability studies may also be undertaken to assess chemical, biological and thermal soil treatment technologies.

**LOCATION**

294-348 Unwin Avenue in the Port Lands, Toronto

The proposed 8.2 hectare (20 acres) site, owned by the Toronto Port Lands Company (formerly TEDCO), is currently zoned industrial and was most recently used for salt storage and aggregate processing.

**PUBLIC CONSULTATION**

- Presentation to the Community – June 16, 2010
- Public Open House – March 11, 2010
- Public Open House – October 10, 2009

To learn more about Waterfront Toronto's Soil Management Strategy and approach, please visit [www.waterfrontoronto.ca](http://www.waterfrontoronto.ca)