



WATERFRONTToronto

Soil Management Update

Sustainable Management of Subsurface Materials

Board Meeting – January 21, 2009

Objective:

Designated Waterfront Area
as a Global leader
for sustainable management
of subsurface materials

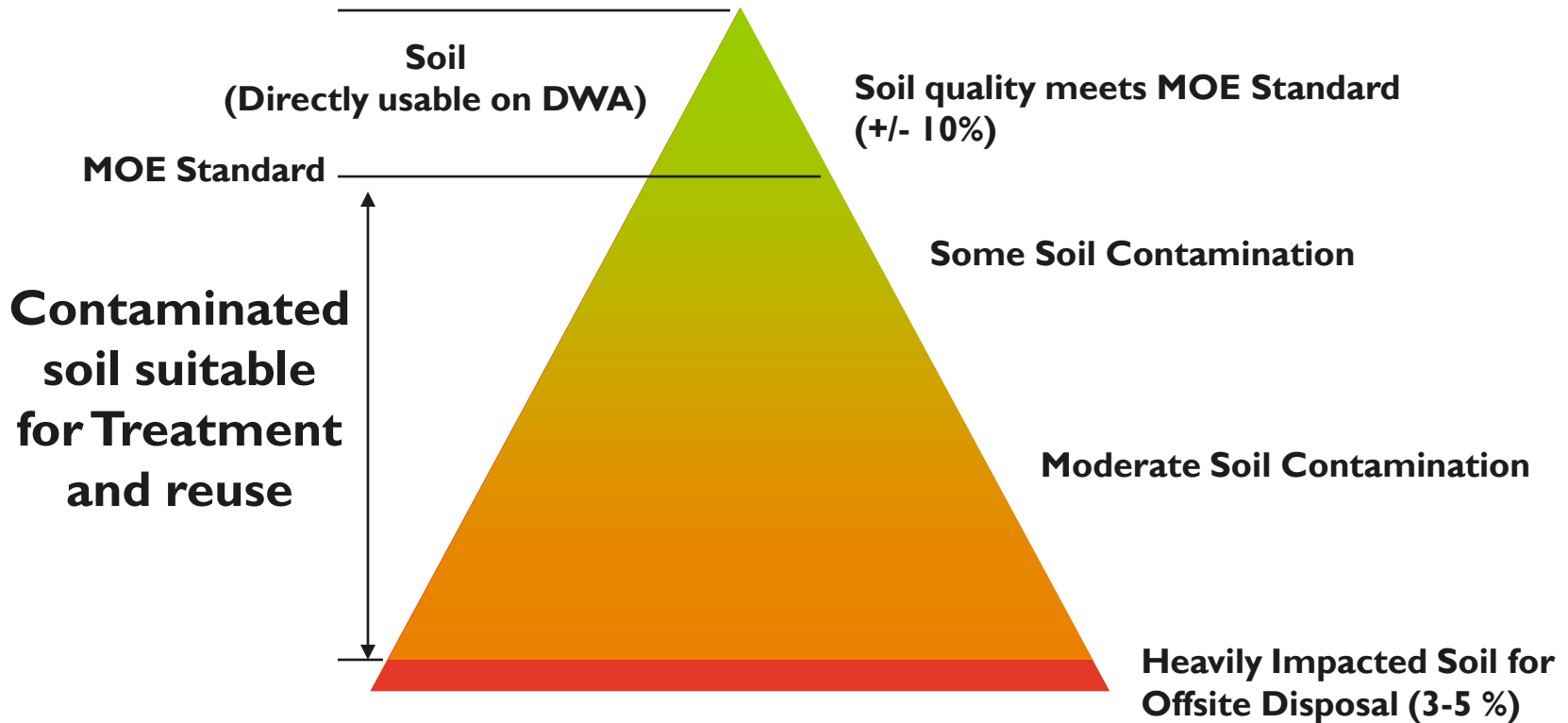
- Environmental
 - Social
- Economic

DWA Environmental Background



DWA has been “**Man Made**” and is covered by fill materials of variable environmental quality.

Fill Environmental Quality: A question of Manageability?



The Real Environmental Impact

Factors	Landfill Disposal	Sustainable Soil Management
Truck travel (km)	75,000,000	2,500,000
Carbon Emissions (tonnes of CO2)	77,000	3,500
Road traffic injuries**	15	2
Other Impacts	<ul style="list-style-type: none"> –Traffic Congestion –Landfill capacity –Replacement Aggregate –Residual Environmental Liability 	
–Costs		
–Road maintenance		
–Traffic Accidents		

** Source: Statistics Canada and Transport Canada, 2003

Soil Management Plan

- Proceed with Risk Assessed, Risk Managed approach
- Establish Designated Waterfront Area (“DWA”) approach
 - Use best practices and latest technologies to treat soil within waterfront
 - Include soil management facility for processing and treating soil
 - Minimize the need to export contaminated soil and import fill materials

Soil Management Issues

1. Risk Assessment Capping Principles
2. DWA single site designation by MOE
3. New Environmental Standards
4. Interim Soil Treatment Facility location and approval
5. Long term Soil Treatment Facility location and approval

I. Risk Assessment Capping Principles

- MOE approved Risk Management measures require that all pathways linking contaminated soils to potential receptors be severed.
- Pathways are severed through the introduction of barriers; which may include a capping layer of clean fill amongst other acceptable treatments
- Current WT designs and budgets are based upon the implementation of capping layers designed to meet MOE principles

I. Risk Assessment Capping Principles – Cont'd

- Increased capping thickness may provide additional worker protection in specific applications including
 - Where workers may breach narrower barrier on a regular basis and be exposed to harmful contaminants
 - Where protective clothing is required due to contamination below the barrier and cannot be reasonably donned prior to breaching the barrier
- Additional capping requirements applied inconsistently - when combined with new MOE standards – will have significant financial impact on WT
 - Estimates for EBF Parks range to \$2.5 M in additional costs
 - Cost of expanded capping layer at Interim Sports Fields = \$1.5M

2. DWA Single Site Designation by MOE

- Proposal to MOE (through Minister Gerretsen) that MOE:
 - Treat the Designated Waterfront Area as a single site for MOE assessment purposes
 - Collaborate with WT on MOE standards interpretation on waterfront sites
- Facilitate transportation to and stockpiling of excavated materials on treatment and storage site(s)

3. New Environmental Standards/Processes

- Proposal to MOE (through Minister Gerretsen) that MOE designate Director/Team to:
 - work with WT and its environment consultants to review environmental data and solutions prior to formal submission
 - Identify trial sites to develop risk management principles and test RA process
 - Attempt to achieve consensus prior to submission
 - Provide MOE feedback on implementation of standards

4. Interim Soil Treatment Facility

- Several Portlands locations under consideration based on size, location, current use, zoning and other factors
- Intent is to minimize treatment volumes in order to not trigger EA process and obtain Part 5 MOE approval if DWA is not considered a single site
- Approval timeline to commence soil treatment once site is selected is 18 months
- Approval timeline to commence stockpiling is 6 months – landfill disposal is required pending approval to stockpile
- Stockpile site is also required pending approval of the treated soil receiving site (proposed to be Lake Ontario Park)

5. Long Term Soil Treatment Facility

- Address larger volume and longer term needs waterfront wide, including the re-naturalization of the mouth of the Don River
- Environmental Assessment process required
- Multi-year approval process anticipated
- Lake Ontario Park remains proposed receiving site for soils not used in the re-naturalization
- Anticipate soil deficit for Lower Don Lands Precincts overall

Soil Receiving Site

- Proposed for Lake Ontario Park (LOP)
- Phase I Funding for LOP is required to complete work necessary to prepare site to receive soils
- 24 month timeframe for design, RA/RM and approvals prior to acceptance at receiving site
- Access agreement conditions may limit planning, design and due diligence process

Current Risks

- Landfill disposal will be required for next 6-9 months until stockpile site is identified and approved
- Stockpiling is required for subsequent 18 months pending Soil Management Facility and Lake Ontario Park approvals
- Costs of remediation and excavation may be increased due to potential requirements for increased capping dimensions and new MOE standards
- Agreements and approvals required for any proposed soil treatment options

Next Steps

- Agree on capping layer criteria
- Submit comments on new MOE standards for soil through Environmental Bill of Rights process
- Meet with Environment Minister Gerretsen
 - Pursue DWA as one site
 - Identify MOE Waterfront “Champion”
- Identify preferred site to locate interim soil management facility
- Assess EA solution for larger long term facility