



WATERFRONTToronto

Waterfront Toronto Soil Recycling Pilot Facility

Board Meeting – June 30, 2010

Project Team

Waterfront Toronto

- David Kusturin
 - VP, Program Management
- Raffi Bedrosyan
 - Director, Port Lands and Civil Infrastructure
- David DuBois
 - Executive Director, Geo-Environmental Services
- Jane McGrath
 - Project Manager

ENVIRON Soil and Groundwater Management

- Steve Desrocher
 - Senior Environmental Geoscientist/
Project Manager



A History of Waterfront Industrialization



- Industrial activity increased on the waterfront from the 1820s to the 1960s at a time when environmental standards were less stringent

- Much of Toronto's waterfront was constructed by filling with materials that are considered contaminated by current standards



Remediation Requirements

- If soils do not meet standards for the intended land use, they require remediation
- Most of the soils within the Designated Waterfront Area are marginally contaminated and can be treated for reuse
- In the long-term 2,000,000 m³ soil will require management
- Development of West Don Lands Pan Am Village, East Bayfront and the Naturalization of the Don Mouth will generate ~1,000,000 m³ soil, requiring management
- In time the Lower Don Lands and Port Lands will generate an additional ~1,000,000 m³ soil, also requiring management



Waterfront Toronto's Soil Management Approach

Waterfront Toronto has developed an overall soil management strategy that includes:

- In place management of soil and groundwater where practical
- Removal, treatment and reuse of soil within the Designated Waterfront Area where possible
- Removal and disposal of soil to landfill where necessary



Implementation

- Soil and Groundwater Master Plan
 - Catalogue soil and ground water characteristics for future management
- Soil Recycling Pilot
 - Evaluate treatment technologies and costs
- Soil Recycling Approvals
 - Secure approvals from Ministry of the Environment to implement soil recycling project
- Implement long-term soil management strategy
 - Treat impacted soil from Designated Waterfront Area for reuse



Soil Recycling Pilot

Prior to committing to full-scale operation, Waterfront Toronto intends to conduct a smaller-scale recycling pilot test that may treat up to 50,000 cubic metres of soil

The Pilot will:

- Identify a range of treatment options and costs
- Confirm that impacted soil can be treated to standards established by the Ministry of the Environment Brownfield Regulation
- Showcase sustainable soil management



Soil Recycling Facility, Zeebrugge, Belgium

photo source: DEC Environmental

Soil Recycling Facility Location

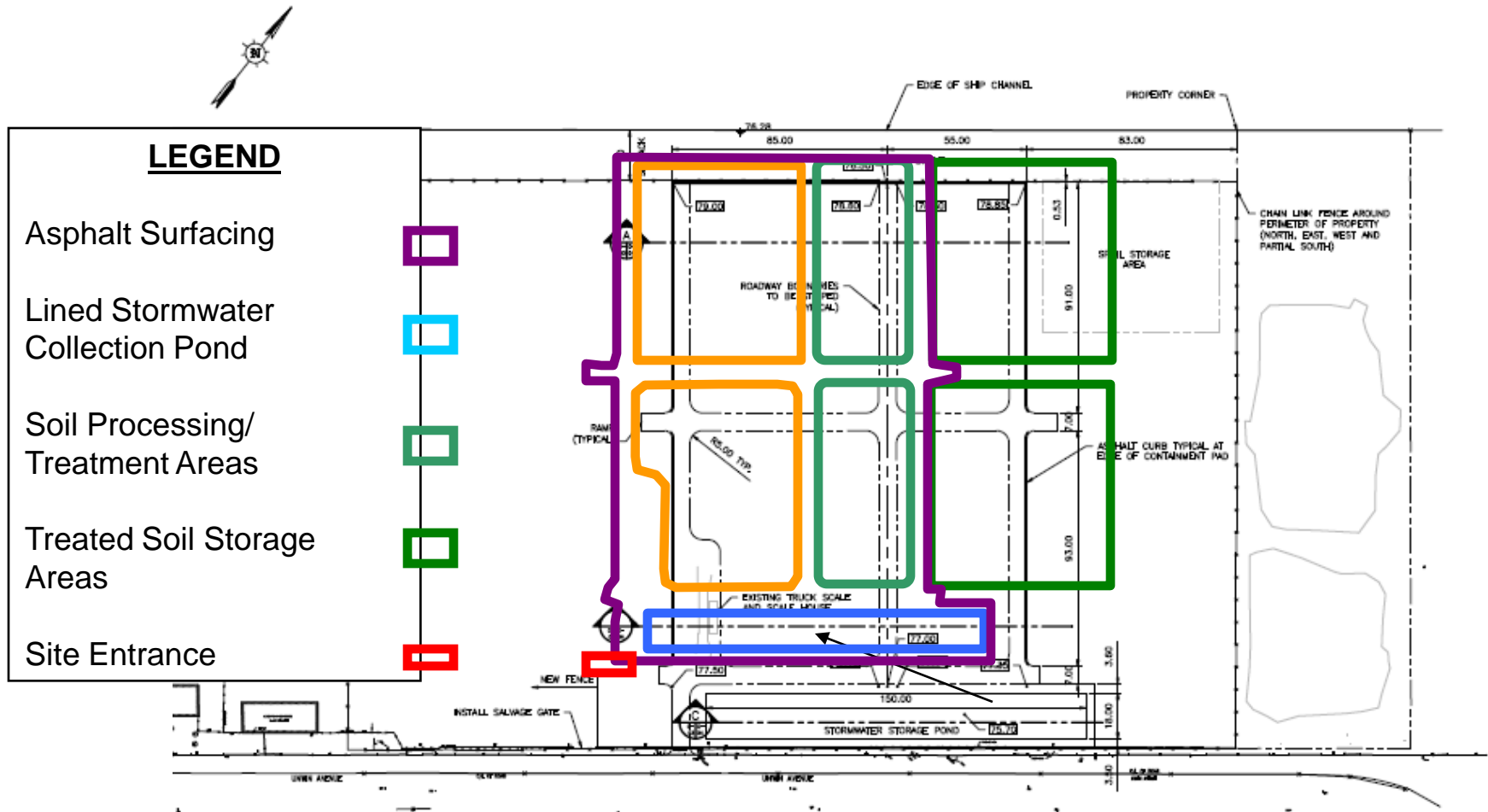


Pilot facility will be situated at 320 and 348 Unwin Avenue

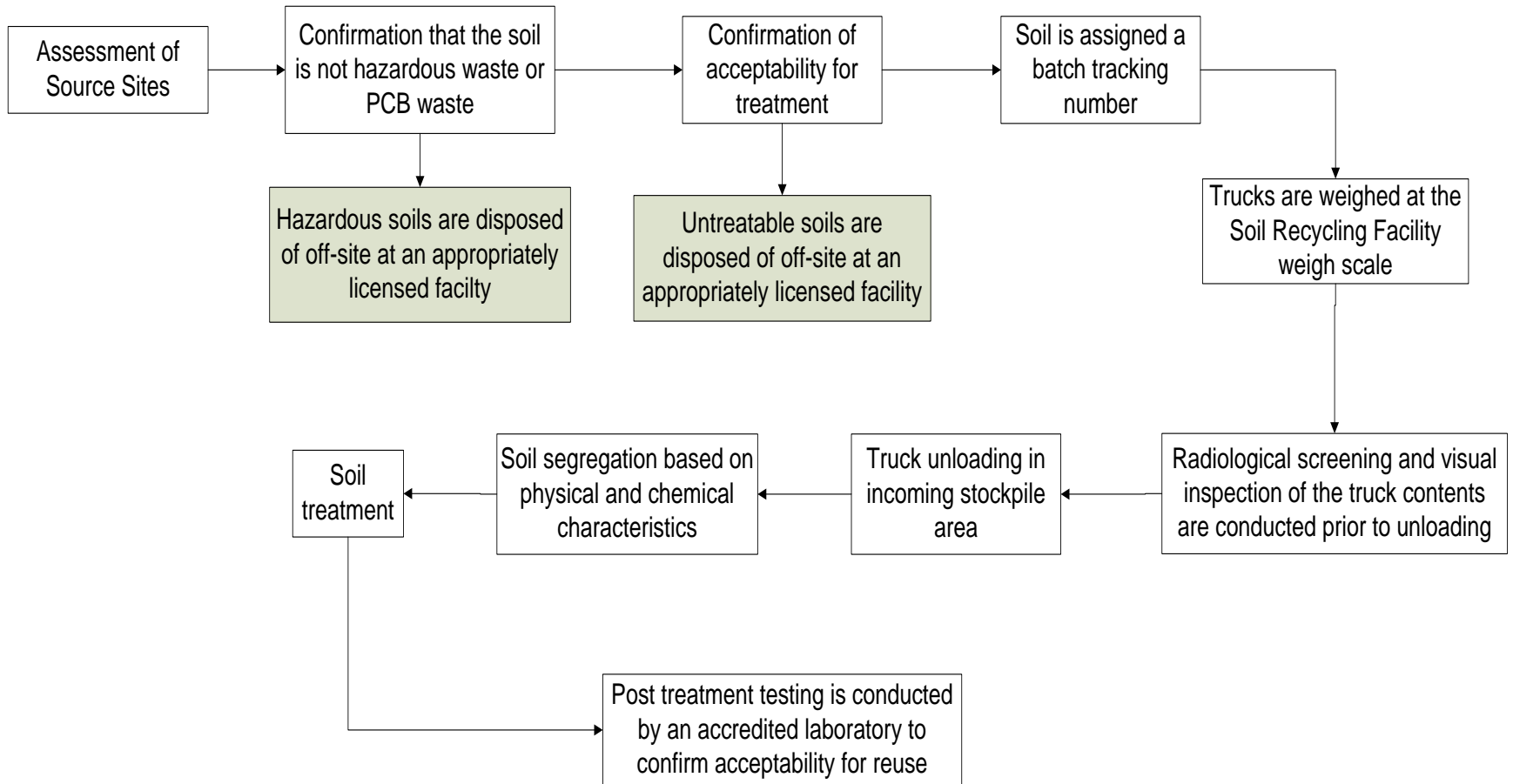
Soil Recycling Pilot

- Request for proposal
 - Two operators selected:
 - DEC/DEME
 - Tetra Tech
- Secured site from TPLC – License Agreement
- Site preparation, grading, paving
- Soil transport by ORC from WDL – PAN AM Games site

Proposed Pilot Test Site Layout Plan



Material Flow Diagram



Design and Operation Principles

- Pre-testing of incoming soil quality before receipt at facility
- No hazardous waste or PCB waste accepted

Site Controls

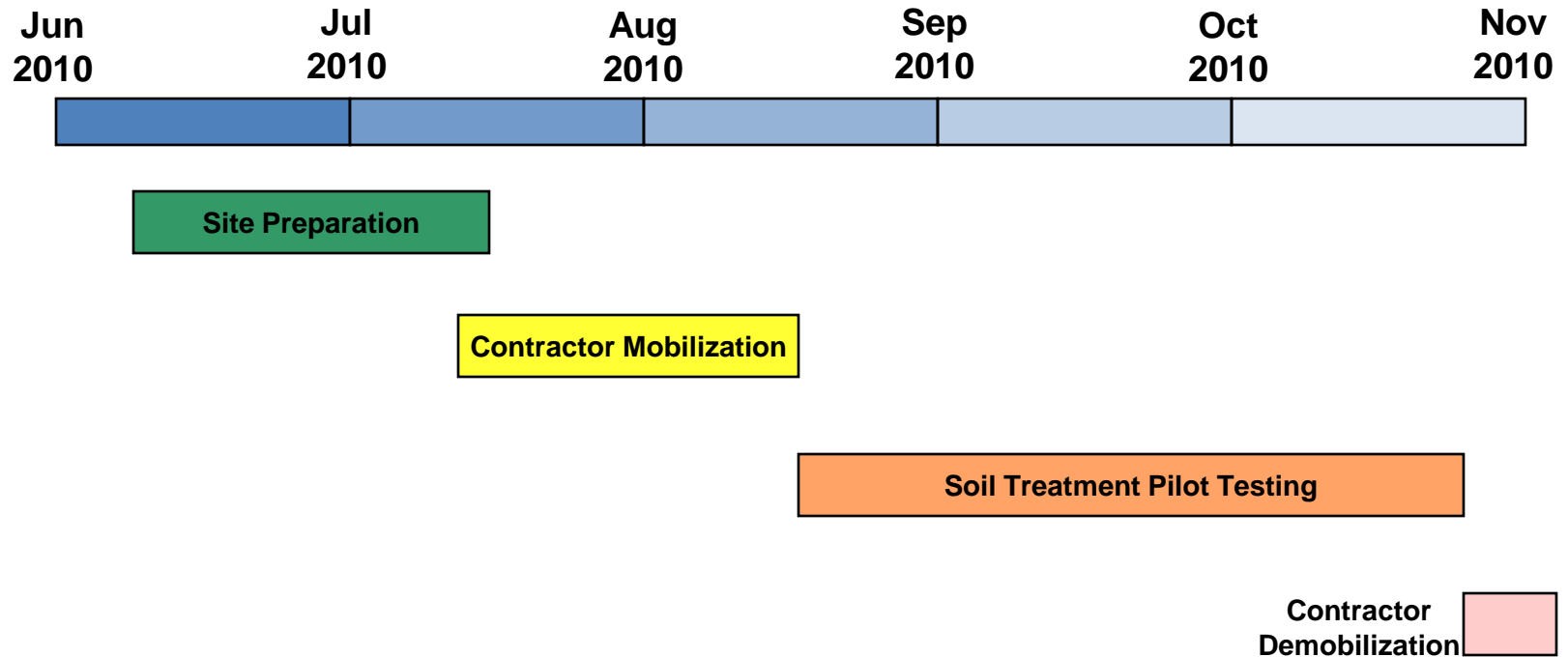
- Controlled access from Unwin Avenue
- Tracking of incoming soil
- Dust control and ambient air monitoring
- Stormwater control and reuse
- Truck washing
- Proponents delivering and operating self-contained treatment plants



Soil Washing Technology



Project Timeline





Stakeholder/Technical Advisory Committee

- Purpose
- What's been done to-date
- Difference between Stakeholder and Technical Committees
- Current members
- Soliciting additional representatives



Next Steps

- Establishment of Stakeholder Public/Advisory Committee
- Public meeting to showcase pilot results – Spring/Summer 2011
- Confirmation of long-term soil management strategy