

# Excess Soil Regulation: City's Perspective

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# Presentation Overview

- **Excess Soil Overview** (Bruce Kenny)
- **Information on Regulation requirements** (Rich Barker)
- **Regulation Implementation Challenges** (Rich Barker)
- **Shift in design and construction approach** (Bruce Kenny)
- **Construction Contract Guiding Principles** (Bruce Kenny)
- **Longer Term Objectives and Directions** (Bruce Kenny)

# Excess Soil Overview

- Since the early 2000s, there has been ongoing initiative by Ministry of Environment to implement a comprehensive approach to managing excess soils (factors include MTO legal actions, inappropriate deposition in areas surrounding the GTA)
- Municipalities have some of the most significant challenges
  - Right-of-Way work areas cross all soil types (chemical and mechanical) and site sensitivities
  - Have site plan and land development oversight responsibilities
  - Desire to be a leader in regulation implementation
- Traditional locations for the deposition of excess soil may become more challenging or unavailable (time and delay)
- Short term approaches will likely put stress on landfill capacity until the most appropriate commercial solutions can be more fully developed.

# Excess Soil Overview (continued)

- City is preparing for short term solutions which:
  - Are in line with both the intent and wording of the new regulation
  - Are cost effective
  - Allow for the continued ability to delivery essential work without unnecessary delay or disruption
  - promote a fair market place and do not promote overly speculative pricing situations (share in the risk)
  - Are complementary to longer term objectives
- The City is looking for long term solutions which:
  - More fully leverage City assets for increased financial and operational sustainability

# Excess Soils Guiding Principles



- Contaminated Soils
  - soils with contaminant levels in excess of that permissible at the site (generally exceed Table 3 Industrial/Commercial) which prevent reuse and require MOE landfilling
- ROW Impacted Soils
  - soil with slight to moderate contaminant impacts
  - When excess, must be managed within the permanent City infrastructure (ROW) , within licenced landfills or on private land under strict Reg 406/19 testing and tracking protocols.
  - Much of the ROW soils would fall in this category
- Disposable fill
  - Considered inert and meet typical background levels.
  - soil that can be disposed of on private land at little to no risk to the generator or the receiving site.
  - Much of the ROW soils may be excluded under new regulations

# Regulation requirements for 2022

*Projects that were in contract prior to January 1, 2022 are exempt from Section 8 of regulation \**

- **Registry**

- Project Areas and Reuse sites that hit certain requirements required to register on provincial database
- Projects that generate >2,000m<sup>3</sup> of soil in a settlement area, enhanced investigation area (industrial use, gas station, dry cleaners) or remediation projects must register
- Notice to be filed on registry before any soil is moved off site
- Update registry at end of project with final volumes, list of reuse sites
- Reuse sites required to register if they will receive more than 10,000 m<sup>3</sup>

- **Mandatory Documents/Studies**

- Documents required for projects that need to register. Need to be prepared by QP.
- Assessment of Past Uses Report (similar to Phase One ESA)
- Sampling and Analysis Plan
- Soil Characterization Report (similar to Phase Two ESA)
- Excess Soil Destination Assessment Report – new report

# Regulation requirements for 2022

- **Tracking system**
  - If project is required to register, then a tracking system must also be implemented
  - Soil tracked from project area through transport and deposit at reuse site
  - Must include information on load quality, source and destination location, and person who oversaw loading and unloading
  - System must be able to produce reports and provide information on individual loads
  - Must include procedures to prevent fraud
- **Hauling records**
  - Regardless of exemptions, all haulers required to have a physical or electronic record during transport
  - The record must include information about the soil source, including contact information for someone that provide information on the soil quality
- **January 1, 2025**
  - Prohibition of landfill disposal for 'clean' soil (meeting Table 3.1 reuse standards)

# Regulation Implementation Challenges

- Inconsistent interpretation and application of the regulation
- Lack of guidance from the Ministry
- How can the City apply exemptions for infrastructure projects
- Managing the volume of records that will be generated

# Design and Construction of Infrastructure Projects

- New regulation will drive changes to
  - How and when projects are selected for implementation (pairing/bundling considerations)
  - Fundamental design approaches
    - Property requirements (berms and fill areas)
    - Designs will need to consider direct and indirect additional cost of excess soil deposition and mitigate where achievable
    - Increase planning (soil characterization, receiving site options, and identifying beneficial use options)
  - Construction means and methods that minimize soil excavation and allow for greater re-use of soils (easier said than done, limit construction road maintenance, SSM, selective excavation and no soil mixing)

# Construction Contract Guiding Principles

- Similar to past years Special Provisions for the management of excess soils but expanded to include all project delivery.
- The regulation will drive many more projects to more controlled soil deposition practices
- Implementation of guiding principles and contract specification requirements will be vetted by City on a contract by contract basis.
- City is dedicating additional specialized resource to the oversight of the regulation on construction projects
- Expect that soil deposition practices will be more comprehensive than the regulation might permit. (Exemptions may not be practical and may create more confusion than benefit)
- Be careful not to hinge fundamental project decision on exemption clauses

# Construction Contract Guiding Principles

- Typically contracts will include
  - Deposition at Trail Road for projects with small quantities
  - Tender item for haulage with landfill tipping fees typically paid direct by City
  - Project specific solutions for larger projects with larger excess soil volumes
  - Expectation that alternative deposition sites may be identified and subject to negotiated cost/credit.
  - Qualified Persons (QP) requirements under the regulation would predominantly be undertaken by the City and the use of contractor QP would be by exception.
  - Additional testing requirements should be expected and typically the testing cost will be considered extra work.
  - The requirement for a Soils Management Plan which document general approach
  - Soil tracking requirements using City excess soil software provider
  - Option for contractors to use approved alternative soil tracking software

# Challenges

- Pressure on receiving sites may outstrip supply prior to commercial solutions permitted under the act coming on line
- Increased costs will be passed through to owners/proponents
- Construction industry readiness is considered low (**particularly the trucking industry**)
- A complete understanding of excess soil volumes generated is not fully understood
- Variability of ROW soils poses additional complexity

# Longer Term Objectives and Directions

- Leveraging City real estate assets for beneficial re-use and/or market stability
- Promote both infrastructure and private development planning that more adequately addresses excess soil requirements
- Soil banking initiatives to maximize beneficial re-use options
- Improved solutions for most challenging excess soil situations
  - Adhoc and small work across the City where pre-planning opportunities do not exist
  - Liquid soils and very wet clay soils
- Promote commercial solutions that provide cost effective options for the City and private enterprises. The industry is innovative and is already responding.

**The End**  
**Thank You**