

Excess Soil Regulation: City's Perspective

NCHCA

February 22, 2022

Bruce Kenny – Design and Construction

Rich Barker – Real Estate Services

City of Ottawa



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 >2,000m³ 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 m³

- **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