Ontario's Excess Soil Regulation

Ontario Waste Management Association (OWMA);
Ontario Sewer & Watermain Construction Association (OSWCA);
Ontario Road Builders' Association (ORBA), and
Ontario General Contractors Association (OGCA)

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For Informational Purposes Only

Ontario

Presentation Overview

- Provide an overview of the various elements of the excess soil regulation, including key dates when rules apply
- Fall 2020 Key Proposed Regulatory Amendments
- Provide an opportunity for questions and discussion

Inside Hamilton, May 2019

CAUTION: *This slide deck provides an overview of the On-Site and Excess Soil Management Regulation 406/19 and other related regulatory amendments related to the management and reuse of excess soil. The descriptions of the regulatory changes in the slide deck are for convenience only and should not substitute for reading the latest versions of the regulations when determining how to comply with the regulatory requirements related to excess soil.*

Final Regulatory Package

- Products finalized in **December 2019** (available on the Environmental Registry, ministry website, and/or e-laws):
  1. New regulation under the Environmental Protection Act (EPA) titled "On-Site and Excess Soil Management" O. Reg. 406/19
  2. Technical items adopted by reference in excess soil regulation:
     I. "Rules for Soil Management and Excess Soil Quality Standards"
     II. "Beneficial Reuse Assessment Tool" (BRAT)
  3. Amendments to the Brownfields regulation (Records of Site Condition) under the EPA, O. Reg. 153/04, for consistency and integration
  4. Consequential Amendments to the Waste regulation (General - Waste Management) under the EPA, Reg. 347
  5. Consequential Amendments to the Regulation on the Registration for Waste Management Systems under the EPA, O. Reg. 351/12
- In **June 2020**, a six month extension was provided through regulatory amendments to this package, moving out the July 1, 2020 requirements to a January 1, 2021 in effect date - to respond to concerns raised as a result of the COVID-19 pandemic.
- On **October 6, 2020** a proposal was posted on the ERO for a 45 day comment period with further regulatory amendments to respond to COVID-19 related delays to infrastructure projects, and to support reuse of excess soil.

What Does this Package Do?

1. Provides **clear rules for beneficial reuse** of excess soil
2. Designates when **excess soil is a waste** and provides criteria that, if satisfied, removes this designation
3. Specifies **when waste approvals are needed** and when exemptions are provided
4. Sets out **minimum requirements** for certain generators of excess soil to ensure information (e.g., characterization) is available to facilitate **appropriate reuse** of excess soil, to **track** certain soil movements, and to provide **transparency**
5. Provides **soil standards** which help build confidence to beneficially reuse soil as a resource in a manner that is safe for the environment and human health
6. Clarifies **provincial role** and how it can be integrated with municipal by-laws or other instruments

Clear Excess Soil Reuse Rules - January 1, 2021

Excess Soil Reuse:

- Excess soil may be reused, and is not considered waste, if all of the following:
  - It is being beneficially reused, not stock-piled
  - Soil is dry and the quality and quantity of the soil align with that necessary for the beneficial reuse
    - If the soil is not dry, a local instrument must permit the deposit of the excess soil
  - The reuse site has consented in writing to take the soil (not illegally dumped)
- Generally, soil staying in the project area is not a waste

Excess Soil Reuse Rules - Quality and Quantity:

- Detailed in *Rules for Soil Management and Excess Soil Quality Standards*
  - **Generic risk-based soil reuse standards**
    - 2 volumes - small volume (up to 350m^3, same as O. Reg. 153/04) and infinite volume
    - Based on land use category, similar to Brownfields (O. Reg. 153/04)
    - Generic leachate screening tables and ceiling values tables are also provided
  - **Site-specific reuse standards**
    - Recognition of quality and/or quantity of soil in a site specific instrument (e.g. municipal fill by-law, Aggregate Resource Act licence)
    - Allows site specific standards to be developed by a QP using the new Beneficial Reuse Assessment Tool or risk assessment, in some cases an instrument is required
  - **Specific Reuse Rules**
    - Rules for specific circumstances (e.g. crop land, sensitive sites, near water bodies)
    - Rules for specific types of soil (e.g. soil with salt, soil mixed with compost)

Generic Excess Soil Quality Reuse Standards - January 1, 2021

Table Description	Small Volume O. Reg. 153/04 (up to 350 m^3)	Volume Independent (350 m^3 +)
Full Depth, Background	Table 1	Table 1
Full Depth, Potable	Table 2	Table 2.1
Full Depth, Non-Potable	Table 3	Table 3.1
Stratified, Potable	Table 4	Table 4.1
Stratified, Non-Potable	Table 5	Table 5.1
Full Depth, Shallow Soil, Potable	Table 6	Table 6.1
Full Depth, Shallow Soil, Non-Potable	Table 7	Table 7.1
Full Depth, Within 30 m of a Water Body, Potable	Table 8	Table 8.1
Full Depth, Within 30 m of a Water body, Non-Potable	Table 9	Table 9.1

(Rules for Soil Management and Excess Soil Quality Standards and Rationale Document for Development of Excess Soil Quality Standards, MECP November 2019)

Exemption of Low-Risk Activities from Waste Approvals - January 1, 2021

- Regulation and Soil Rules document specifies certain activities that, if regulatory rules are satisfied, would not require an approval (i.e. a waste Environmental Compliance Approval)
- The following activities are exempt from these types of approvals (subject to certain rules):
  - Hauling of excess soil (dry or liquid)
    - Rules generally relate to containment and safety during transportation, and for haulers to provide information on soil they are transporting, if stopped and asked
  - Low-risk on-site processing
    - Including passive dewatering, some mixing of soils, sorting of soil and debris, mixing additives for solidification for transportation
    - Rules help to prevent adverse effects and retain confidence in processed material
  - Temporary soil storage sites (Class 2 Sites)
    - Can be used to store up to 10,000 m^3; some low-risk processing of dry soil is permitted
    - Rules help to ensure stored soil is ultimately reused, appropriately, and there are no adverse effects
  - Local waste transfer facilities can be used to do the same low-risk dry soil processing activities as Class 2 sites, as well as some low-risk liquid soil processing activities (e.g., passive dewatering) by public bodies and infrastructure companies
  - General storage rules which apply to all sites (e.g., set-backs from water bodies, pile size)

Improved Reuse Planning to Support Reuse - January 1, 2022

Source Site Excess Soil Reuse Planning Rules:

- Project leaders of some sites generating excess soil would be subject to certain planning requirements to help ensure soil is managed and reused properly, some activities will require QP oversight
- Generally these requirements apply to larger projects (generating 2000m^3) within settlement areas and sites more likely to have past/present activities which could result in contaminated soil (e.g., gas stations, industrial sites, soil from remediation projects). Several exceptions apply.
- These requirements include:
  - Filing a notice in the online, public **registry** before removing excess soil from the project area
  - Using a qualified person to complete:
    - an **Assessment of Past Uses**,
    - if necessary, a **Sampling and Analysis Plan** and an **Excess Soil Characterization Report** to understand the quality of the soil that will be excess soil
    - an **Excess Soil Destination Assessment Report** to verify that intended reuse sites can accept the soil to be sent to them
  - Develop and apply a **tracking system** to track each load of excess soil during its transportation and deposit at a reuse site
- To support compliance and transparency, key information from the above reports and records must be included in the notice filed on the registry, such as the locations to which soil was taken
- Several **exemptions provided** to planning rules e.g., certain infrastructure undertakings, for emergencies, if 100m^3 or less is moved directly to a waste disposal site, topsoil reuse, for excess soil with no contaminants moving from less sensitive sites (e.g., agriculture, residential), etc. (See Appendix E for more details)

Large Reuse Sites and Landfill Restrictions - January 1, 2022 and January 1, 2025

Greater Assurance that Large Reuse Sites are not Receiving Waste Soil (January 1, 2022):

- Reuse sites accepting at least 10,000m^3 of excess soil for an undertaking will be required to **register** and develop and implement procedures to track and **inspect** each load of excess soil being received
- Will not include reuse sites that are part of an undertaking related to an infrastructure project
- These additional requirements will help to ensure that these reuse sites are receiving soil that meets the appropriate reuse conditions and that the storage of excess soil for final placement in respect of an undertaking at the reuse site does not cause an adverse effect

Limited Restriction on Landfilling of Clean Soil to Avoid Unnecessary Use of Landfill Capacity (January 1, 2025):

- Restriction on landfilling of soil that is clean enough to be reused (i.e. if the soil meets Table 2.1 for residential, parkland or institutional use)
- Will not affect use for daily or final cover or other beneficial uses for landfill operational needs

Key Considerations for Infrastructure Projects - January 1, 2021 and January 1, 2022

Several areas of the regulation provide additional flexibility for soil movements undertaken as part of an **infrastructure project**, these include:

January 1, 2021

- **Local Waste Transfer Facilities** can be used for certain low risk storage and processing activities (dry and liquid soils) without an approval - if managed by a public body or infrastructure project
- When the **Beneficial Reuse Assessment Tool** is used with the six site use characteristics (e.g., adding a hard cap barrier, building prohibition, etc.) an approval is not required if the reuse site is an infrastructure project
- Generally, excess soil is to be reused within 2 years of being received at a reuse site; for infrastructure projects the **time for reuse is as long as is needed** to complete the project

January 1, 2022

- **Larger reuse sites** 10,000m^3+ are required to register and establish procedures to track and inspect excess soil being received, this does not apply to infrastructure projects
- **Maintaining infrastructure** in a fit state of repair is not subject to the planning requirements
- Movements **from infrastructure project to infrastructure project** are exempt from the planning requirements if the reuse site is owned by the project leader of the site where the soil originated or a public body

Implementation Dates with Fall 2020 Key Proposed Regulatory Amendments

Regulatory Provisions	Timing
Reuse Rules and Waste Clarification - Clear reuse rules, excess soil reuse standards (including leachate screening levels) and site-specific standards e.g., BRAT - Clear waste designation - Reduced waste approvals for low risk soil management activities	January 1, 2021

Excess Soil Planning Requirements
- For larger or riskier generating projects (some exemptions)
  - Assessment of past uses, and if required sampling and characterization
  - Destination assessment report
  - Tracking and registration
- Hauling record
- Larger reuse site registration
	January 1, 2022 (see grandfathering)

Excess Soil as a Resource Not a Waste - Restrict the deposit of clean soil at landfill sites, unless the soil is needed for cover or purposes beneficial to the functioning of the landfill	January 1, 2025
Grandfathered Contracts - For contracts entered into by January 1, 2021 - to allow time for business practices to adapt and to provide necessary supporting guidance and outreach (Note: October 2020 Regulatory Proposal recommending this be extended by 1 year to January 1, 2022) - If this exemption applies, notice does not need to be filed in the registry and associated planning requirements are not triggered until January 1, 2026	Grandfathering exception expires on January 1, 2026

Fall 2020 Key Proposed Regulatory Amendments

- Expanding the current **grandfathering provision** in the Excess Soil Regulation by:
  - extending the date applicable to the grandfathering provisions by which construction projects must be entered into by one year, from January 1, 2021 to January 1, 2022, to accommodate projects that are close to starting construction but delayed due to COVID-19
  - clarifying that projects with geotechnical studies undertaken by January 1, 2022 with similar soil quality assessments as O. Reg. 406/19, that for these projects an assessment of past uses, sampling and analysis plan and soil characterization report would not need to be repeated
- Additional regulatory **flexibility for low risk matters**, including:
  - replacing waste-related Environmental Compliance Approvals with standard rules for operations processing excess soil for resale as a garden product, and operations managing clean soils for residential development projects
  - providing added flexibility to soil management rules such as those for soil storage and reuse of soil impacted by salt
  - enabling Environmental Compliance Approvals to specify alternative soil management requirements to provide project-specific flexibility
  - updating O. Reg. 406/19 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the EPA (Analytical Procedure) with the new modified Synthetic Precipitation Leaching Procedure (mSPLP)
  - clarifying that the **excess soil registry** to be used for filing notices will be delivered by the Resource Productivity and Recovery Authority and expand the registry's purposes to also include integration with other third-party systems supporting reuse of excess soil, such as tracking systems, soil matching systems and other non-regulatory programs
  - Other minor clarifications and clerical/administrative amendments

APPENDIX A: Rules to Come Info Force on Jan 1, 2021 Recap

Waste Designation:

- Excess soil may be reused, and is not considered waste, if:
  - If it is being beneficially reused, not stock-piled
  - The quality and quantity of the soil align with that necessary for the beneficial reuse and the soil is dry, if the soil is not dry, a local instrument must permit the deposit of the excess soil
  - The reuse site has consented in writing to take the soil (not illegally dumped)

Waste Approvals:

- Low risk soil management activities which do not require an approval, replaced with simple regulatory rules:
  - Hauling of excess soil (dry or liquid) - for safe containment and transportation
    - Includes requirements for haulers to verbally provide key information to provincial officers, if asked, e.g., pick-up and deposit locations
  - Low-risk on-site processing - e.g., passive dewatering, some mixing of soils, sorting of soil and debris, mixing additives for solidification for transportation
  - Temporary soil storage - storage and low-risk processing of dry soil e.g., setbacks from water body and property line, pile size, maximum soil at a property, etc.
  - Local waste transfer facilities - can be used by public bodies and infrastructure companies to do specified low-risk dry and liquid soil processing activities (e.g., passive dewatering)

Excess Soil Reuse Standards:

- Generic risk-based standards, 2 volume sizes - small volume up to 350m^3 and infinite volume; OR
- Use of site specific standards - standards specified in a site specific instrument (e.g. municipal fill by-law, Aggregate Resource Act licence), allows for use of the Beneficial Reuse Assessment Tool or Risk Assessments

The new standards are supported by more detailed rules which provide additional clarity and flexibility e.g., proximity to water body, salt impacted soil, soil mixed with compost, etc.

APPENDIX B: Screening Matrix of Key Site Conditions to Select Standards - Jan 1, 2021

Table Site Condition	Table 1	Table 2/2.1	Table 3/3.1	Table 4/4.1	Table 5/5.1	Table 6/6.1	Table 7/7.1	Table 8/8.1	Table 9/9.1
Property is an Environmentally Sensitive Area.	✓	x	x	x	x	x	x	x	x
Groundwater use condition is potable.	✓	✓	x	✓	x	✓	x	✓	x
Land Use is Agricultural or Other.	✓	✓	x	x	x	✓	x	✓	x
Overburden thickness is unknown or is less than 2 m.	✓	x	x	x	x	✓	✓	x	x
Depth to groundwater is unknown, is less than 3 m below ground surface or the capillary fringe is <0.8 m from the base of the gravel crush of any existing/future building foundation*.	✓	x	x	x	x	✓	✓	x	x
Nearest water body is unknown or less than 30 m from the property.	✓	x	x	x	x	x	x	✓	✓
Excess soil may be placed at any depth.	✓	✓	✓	x**	x**	✓	✓	✓	✓
Stratified site conditions must be maintained to ensure that surface soil and subsurface soil meets the applicable stratified condition standards.	✓	x	x	✓	✓	x	x	x	x

(Rules for Soil Management and Excess Soil Quality Standards and Rationale Document for Development of Excess Soil Quality Standards, MECP November 2019)

Notes: **x** This table may not be appropriate. ✓ This table may be acceptable, see Section 5.1 for other considerations.

* This site condition is applied to volatile chemicals only. ** Standards for subsurface soil in Tables 4/4.1 & 5/5.1 must be applied only for soil placed at 1.5 m below ground surface or deeper.

APPENDIX C: Key Considerations for Salt Impacted Soils - Jan 1, 2021

Soil Rules

Similar to the Brownfields regulatory changes in O. Reg. 153/04, soil that is impacted with salt due to salting for vehicle and pedestrian safety, **can be reused** if the following criteria are met:

- If soil is finally placed in an area where salting is expected e.g., future parking lot, future road; or
- At an industrial/commercial property where non-potable standards apply; or
- At least 1.5 meters below the surface

Despite the above, **salt impacted soil cannot be reused** in any of the following circumstances:

- Within 30 meters of a waterbody
- Within 100 meters of a potable well / an area intended for future potable well
- Within 2 meters above the water table (Note: October 2020 Regulatory Proposal recommending this requirement be removed)
- Where crops / pasture activities are occurring / planned (unless the soil is placed 1.5 m or greater below the soil surface)

If salt impacted soil is brought to a reuse site, the **reuse site must be notified** that the soil is salt impacted and the project leader/operator of the project area must communicate any relevant risks. If any sampling of the soil has taken place prior, these **sampling results must be provided** to the reuse site owner.

APPENDIX D: Special Considerations for Agricultural Lands and Sensitive Areas - January 1, 2021

Soil Rules

Environmentally Sensitive Areas

Excess soil shall only be placed within an environmentally sensitive area if the excess soil meets Table 1 of the excess soil quality standards and the results of any required leachate analysis meets Table 1 of the leachate screening levels

Soil for Growing Crops and Pasture

Excess soil shall only be finally placed for the beneficial purpose of growing crops or pasture if the following criteria are met

1) No excess soil will be placed on top of existing topsoil unless the excess soil is topsoil; and
2) The excess soil meets Table 1 of the excess soil quality standards and the results of any required leachate analysis meets Table 1 of the leachate screening levels, unless the excess soil is finally placed at a depth that is below 1.5 metres from the surface

Several other rules to consider for different types of excess soil management where in certain circumstances and conditions, a waste-ECA is not required e.g., soil blended with compost category AA, mixing soil for the purpose of solidifying excess soil, etc.

APPENDIX E: Key Exemptions - Excess Soil Regulation Planning Rules - January 1, 2022

Certain excess soil movements are **exempt** from the requirement **to file a notice on the registry and the associated planning requirements**:

- If 100m³ or less is moved directly to a waste disposal site (but not a Class 2 Soil Management Site)
- Removal of soil due to emergencies e.g., danger to health, safety or damage to any person, property, plant or animal life
- Projects that are related to maintaining infrastructure in a fit state of repair, this does not include stormwater management pond clean outs
- Topsoil as defined in the *Municipal Act* which is transported directly for reuse as topsoil

Specific elements of excess soil planning requirements may be exempt (e.g., sampling, characterization and destination assessment) for excess soil with no contamination moving from less sensitive sites (e.g., agriculture, residential)

- Stormwater management pond (SWM) sediments are within scope of the definition of infrastructure, as such these sediments can take advantage of infrastructure planning exemptions, where applicable

Questions?

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