Excess Soil Webinar Series

1. Project Area - (Source Sites)

Date and Time: October 27th, 2021
9:00am to 11:00am

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Excess Soil Webinar Series - Schedule

Topic Areas	Date and Time
1. Project Area - Source Sites	**Wed October 27th, 2021 9:00am to 11:00am**
2. Reuse Sites	Fri October 29th, 2021 9:00am to 11:00am
3. Transportation of Excess Soil (Dry and Liquid)	Wed November 3rd, 2021 9:00am to 11:00am
4. Infrastructure Projects	Fri November 5th, 2021 9:00am to 11:00am
5. Excess Soil Registry - Regulatory Requirements	Fri November 12th, 2021 9:00am to 11:00am
6. Vac Trucks and Liquid Soil Management	Fri November 19th, 2021 9:00am to 11:00am
7. Qualified Persons (QP) and Excess Soil Planning	Wed November 24th, 2021 9:00am to 11:00am
8. Soil Depots and Storage/Processing Sites	Fri November 26th, 2021 9:00am to 11:00am

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Presentation Overview

- Welcome to Webinar Series - 1 - Project Area (Source Sites)
- Overview of Regulatory Requirements
- Best Practices
- Frequently Asked Questions and Answers
- Health Break
- Open Discussion, Additional Question and Answer Period
- Additional Resources and Opportunities

- Appendices
    - Appendix A: Soil Storage Rules
    - Appendix B: Tracking System Requirements

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Your MECP Excess Soil Team

Some of our MECP team members include:

Policy
Chris Lompart
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Legal
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Approvals
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Paul Welsh

RSCs and Brownfields
Dean Therrien
Michelle Zehr

Operations
Lisa Tanaka

Environment, Conservation, and Parks

Overview of Regulatory Requirements Relevant to Project Areas

Toronto Waterfront, Don River
Project Filling - MECP, Jan. 2019

DISCLAIMER

This presentation is intended to be a brief summary of some of the requirements of Ontario Regulation 406/19 On-Site and Excess Soil Management (the regulation) made under the Environmental Protection Act and the Rules for Soil Management and Excess Soil Quality Standards - a document incorporated by reference in the regulation. This is for information purposes only and should not be construed as legal advice or substitute for seeking independent legal advice on any issues related to the regulation. Any person seeking to fully understand how the regulation may apply to any of the activities they are engaged in must refer to the regulation. In the event of any inconsistency between the regulation and this presentation, the regulation will always take precedence.

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Overview of Regulatory Requirements

- Regulation titled **O. Reg. 406/19: On-Site and Excess Soil Management** under the Environmental Protection Act (EPA), was finalized in December 2019, supported by:
  - Rules for Soil Management and Excess Soil Quality Standards
  - Beneficial Reuse Assessment Tool (BRAT)
  - Complementary provisions in O. Reg. 153/04 (Brownfields Remediation Regulation), Reg. 347 and O. Reg. 351/12 (Waste Management Regulations)

Phased Regulatory Implementation	Timing
Reuse Rules and Waste Designation Clarification - Including excess soil reuse standards	January 1, 2021

Excess Soil Reuse 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

Restriction on the deposit of clean soil at landfill sites	January 1, 2025

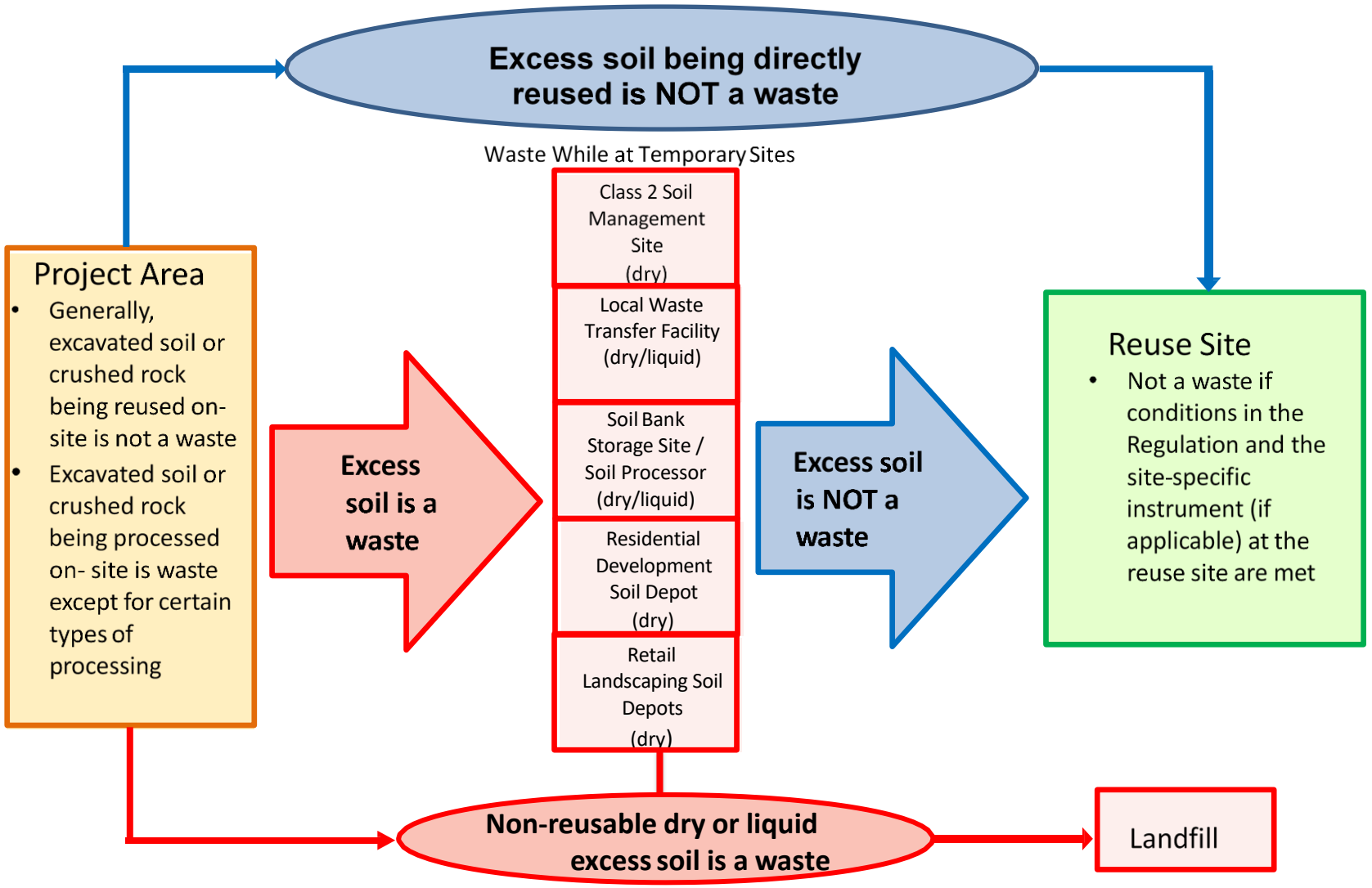
Rules for Excess Soil Reuse

- Excavated soil or crushed rock becomes excess soil upon leaving a project area.
- Generally, soil and rock staying in the project area is not a waste and can be reused.
- The rules for reuse of excess soil are found in sections 3, 4 and 5 of the regulation, which then refer to other key sections of the regulation and both parts of the Rules for Soil Management and Excess Soil Quality Standards.
- In order to be reused and not designated as waste, excess soil being reused at another site must meet all of these conditions:
    1. The excess soil is directly transported to a reuse site from a project area, a Class 1 soil management site or Class 2 soil management site, or local waste transfer facility
    2. The owner or operator of the reuse site has agreed in writing to deposit the excess soil at the reuse site
    3. There is a beneficial use for that excess soil and the quality and quantity of excess soil being taken to that site are consistent with the beneficial use
    4. The excess soil is dry soil and remains dry soil until it is finally placed at the reuse site, or, if it is liquid soil, a site-specific instrument authorizes the excess soil to be deposited at the reuse site
- These criteria are intended to ensure that the excess soil will be reused at the reuse site for a beneficial purpose and that the quality and quantity of the excess soil to be deposited at the reuse site for final placement are appropriate for that purpose

Rules for Excess Soil Reuse

- If direct reuse of the excess soil cannot be achieved, the project leader may consider the following approaches to managing the excess soil:
  - If soil quality is a factor, remediation either on-site or at a soil remediation facility, after which the excess soil may be able to be beneficially reused and no longer be considered a waste
  - If a reuse site is not ready to accept the excess soil, temporary storage on the project area or at another site (such as a Class 2 soil management site or a local waste transfer facility if applicable) until the reuse site becomes available
  - If a reuse site has not been identified, transportation of reusable excess soil to a soil bank, this soil then becomes the responsibility of the soil bank operator
  - Transportation to a landfill for use in landfill operations or disposal, with some restrictions as of January 1, 2025
  - If the excess soil is liquid soil, often generated through hydro-excavation, tunneling and removal of sediment from stormwater management ponds, de-watering or solidifying the excess soil so it could be reused as dry soil

Waste Designation Flowchart



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Reuse Within the Project Area

- Excavated soil or crushed rock from the project area that is reused within the project area is not excess soil and is not designated waste. This allows these materials to be readily reused on-site and they are exempt from the excess soil reuse rules in the regulation, including the excess soil quality standards.
- While the excess soil reuse rules do not apply to excavated soil or crushed rock reused on-site, being familiar with them may prevent adverse effects.
- If a Record of Site Condition (RSC) will be filed for a project area, then any excavated soil or crushed rock that is to be reused within the RSC property must meet the applicable site condition standards of Ontario Regulation 153/04, including approved standards in a risk assessment under that regulation if developed, so that the RSC can be filed.
- As well, if soil or crushed rock that is excavated within a project area is determined to be a hazardous waste within the meaning of Regulation 347, the requirements of that regulation must be followed, and this regulation does not apply.
- Maximizing on-site reuse should be considered during the design of a project to avoid requirements that may apply to excess soil leaving a project area.
- If soil or crushed rock is excavated at the project area and temporarily stored at an interim site or in a vehicle off-site, then returned to the project area for reuse, it would not be subject to the requirements in sections 3, 4 and 5 of the regulation (the reuse criteria).

Project Area - Storage and Processing Rules

- The regulation and Soil Rules document specify certain low-risk activities related to soil storage and processing, that, if regulatory rules are satisfied, would not require a waste Environmental Compliance Approval (ECA)
- These rules help to prevent adverse effects (to avoid leaching, dust, noise, etc.) while retaining confidence in the storage and processing of soil that is taking place

<u>Soil Storage</u>

- The regulation and Soil Rules document specify general storage rules which apply to all sites, including project areas:
  - Rules related to set-backs from water bodies and property lines (with some exceptions provided), maximum stockpile size 2,500m^3, details around when soil needs to remain segregated, etc.
  - See Appendix A for further details on general soil storage rules that apply at all sites, including project areas

Project Area - Storage and Processing Rules

On-Site Processing

- Subsection 6(3) of the regulation lists types of **low-risk processing** of excavated soil or crushed rock that may take place at a project area without needing a waste-ECA:
    - Passive aeration,
    - Passive dewatering,
    - Mechanical dewatering,
    - Mixing (if of similar quality and not for the purpose of diluting contaminants),
    - Soil turning,
    - Size-based sorting and sorting for the purpose of removing debris, or
    - Mixing with another substance that is intended to dewater or solidify the soil or crushed rock
- Use of polymers for solidification also requires involvement of a QP and requires the project leader to provide appropriate documentation to the owner or operator of the reuse site
- Note that some of the types of processing that would not require a waste ECA may require other approvals, such as those under subsection 9(1) of the *EPA* or subsection 53(1) of the *OWRA*

Project Area - Visual and Olfactory Observations

- Section 23 of the Regulation provides rules to follow if unexpected contamination is discovered during excavation
- The project leader or the operator of any project area is required to develop and apply procedures if any person working in the project area makes an observation, including any visual or olfactory observation, that suggests that the soil being excavated may be affected by the discharge of a contaminant
- At a minimum this shall include:

1. All soil excavations in the project area must immediately cease upon the observation being made, until such time as the project leader directs that soil excavations may be resumed.
2. The project leader or the operator of the project area must immediately be notified of the observation.

(Continued on next slide)

Visual and Olfactory Observations - Continued

3. The project leader or the operator of the project area, upon being notified of the observation, must, before directing that soil excavations may be resumed, ensure that all necessary steps are taken to ensure that:
   i. all excavated soil that is affected by the discharge of a contaminant is identified and is segregated from other excavated soil in the project area,
   ii. the portion of the project area that is affected by the discharge of a contaminant is determined, and
   iii. any excess soil from that portion of the project area is disposed of in accordance with this Regulation.
4. If a project leader was required to ensure that a QP prepared or oversaw the preparation of documents under this Regulation, the project leader shall, before authorizing any soil to be removed from the project area where the observation was made:
   i. obtain the advice of a qualified person regarding what steps are necessary in order to ensure the outcomes mentioned in subparagraphs 3 i, ii and iii, and
   ii. request that the qualified person advise on whether any of the documents required under this Regulation require revision as a result of the observation.

Excess Soil Reuse Planning Requirements

- To help ensure reuse of excess soil from a project area is being planned and undertaken appropriately, the regulation includes requirements as of January 1, 2022, for some projects generating excess soil
- The excess soil reuse planning requirements include:
    1. Registration of a notice in the Excess Soil Registry for the project
    2. Completion of an assessment of past uses and, if necessary, a sampling and analysis plan and a soil characterization report
    3. Completion of an excess soil destination report
    4. Application of a tracking system
- To support compliance and transparency, key information from project area efforts must be included in the notice filed on the registry, such as the locations where soil is planned and then taken to for reuse, storage, processing and/or disposal
- These requirements apply in relation to a project and, generally, the regulation places the responsibility to ensure these requirements are met on the project leader. This does not prevent contractual arrangements resulting in other people completing these requirements on behalf of a project leader.
- The assessment of past uses, sampling and analysis plan, soil characterization report, and excess soil destination report must be undertaken by or under the supervision of a QP

Excess Soil Reuse Planning Requirements

- The excess soil reuse planning requirements apply to the following types of projects which are, generally, larger in scale or more likely to generate excess soil with some contaminants:
    1. projects generating 2000m³ or more of excess soil and that are in a settlement area (such as cities and towns); this trigger does not apply to projects in rural areas
    2. projects for which part of the project area has a past or present use that is a gas station, garage, used for the operation of dry-cleaning equipment, or industrial use (uses associated with an “enhanced investigation project area” as defined in the regulation)
    3. projects for which the primary purpose is to remediate contaminated lands (note that if a new property use cannot proceed without completion of soil remediation, such as soil removal, this should be considered a primary purpose)
- A number of exemptions from the planning requirements exist which are described on the next slide.

Exemptions from Reuse Planning Requirements

- The regulation includes several exemptions from all or some of the planning requirements related to soil reuse planning.
- These exemptions reflect some low risk scenarios, some scenarios where responsibility for the soil is not changing, and some scenarios to help encourage reuse in similar projects:

1. If 100 m^3 or less of excess soil is being removed from the project area and being directly transported to a waste disposal site, such as a landfill (this does not apply a Class 2 soil management site)
2. The reason for removal of excess soil is to respond to an emergency, such as an existing danger to the health or safety of any person, a serious risk of injury or damage to any property or to any plant or animal life, or to respond to a spill
3. Projects that are related to maintaining infrastructure in a “fit state of repair” other than excavation of excess soil from a stormwater management pond
4. The excavation of topsoil which is transported directly for reuse as topsoil at a reuse site, and there is a low risk of contamination (the project area has never been an enhanced project investigation area, and the primary purpose of the project where the excess soil was removed from was not the remediation of contaminated land)
5. The excess soil is excavated as a part of an infrastructure project and after removal from the project area, the excess soil is being reused (finally placed) as part of an undertaking related to another infrastructure project with the same project leader or a public body
6. The excess soil is being deposited at a local waste transfer facility and the amount of excess soil to be deposited is 100 m^3 or less

Additional Exemptions

Existing Contract Exemption

- The regulation exempts soil management contracts entered into before January 1, 2022 from the reuse planning requirements (i.e., registration, assessment of past uses, sampling and analysis, tracking, etc.).
- If a contract has not been completed by January 1, 2026, it would be required to complete the excess soil reuse planning requirements in relation to excess soil movements from that date forward.
- Other regulatory rules would continue to apply, including provisions specifying excess soil reuse rules to avoid the waste designation.

Completed Assessments Exemption

- The regulation also recognizes past use assessments, sampling and analysis plans and soil characterization reports completed for a specific project before January 1, 2022 as assessments, plans and reports under the regulation for that project.
- This ensures these studies do not have to be repeated for a project continuing based on those studies. This would not apply to a different project.
- Other aspects of reuse planning , e.g., registration, continue to apply.

Filing a Notice on the Registry

- For projects that must complete the excess soil reuse planning requirements, section 8 of the regulation requires that the project leader file a notice in the Excess Soil Registry (Registry), typically before excess soil leaves the project area.
- The Registry is an online, public registry being developed and implemented by the Resource Productivity and Recovery Authority (RPRA), must include key information:
  - A description of the project and the project area
  - The name and contact information for the project leader(s) and operator, and QP(s)
  - Quantity of soil being removed from the project area and its quality, by general category
  - The name and contact information for the person responsible for the transportation of Excess soil from the project area
  - The intended location and description of the reuse sites, landfills, dumps, Class 1 soil management sites (soil banks and soil processing sites), local waste transfer facilities and temporary sites (Class 2 soil management sites) where soil is to be deposited, including applicable excess soil quality standards and quantity of soil deposited at the site
  - Declarations by the project leader
- Once a notice is filed it must be updated:
  - To identify new planned deposit sites prior to their use
  - Within 30 days of completion of the project to reflect actual soil movements
  - Within 30 days of finding inaccurate or incomplete information in the notice

Tracking System

- A project leader from the project area must also verify where the excess soil was finally placed through the development and application of a tracking system for projects required to file a notice on the Registry - to track excess soil during its transportation and deposit.
- The tracking system will include procedures to account for each load of excess soil moved from a project area, including its general quality, quantity and verification of the final site at which it was deposited.
- The hauling record, required to be available from a hauler of excess soil, can be an integral part of the tracking system. The tracking system would also inform the hauling record by ensuring that the appropriate quality of soil for a deposit site is loaded and reflected in the hauling record.

To read more about the key requirements associated with the tracking system, see Appendix B and Section B of Part I: Rules for Soil Management.

Assessments and Reports

Project leaders that are required to register their project must also complete specified assessments and reports. These requirements must be completed before filing the notice on the Registry. A QP must be used to complete these assessments and reports:

- **Assessment of Past Uses**: this study involves using such methods as records reviews, interviews, and site reconnaissance (field visits) to determine the likelihood that one or more contaminants have affected the soil, and to identify areas of potential environmental concern and the contaminants of potential concern. If a phase one environmental site assessment (ESA) under O. Reg. 153/04 of the EPA has been prepared for the same project, an assessment of past uses is not required.
- **Sampling and Analysis Plan**: this involves the planning, investigation (for example, sampling and testing) and analysis of area(s) from which excess soil will be excavated with known or suspected contaminants to understand the quality of the excess soil. This assessment and the soil characterization report may not be necessary depending on the results of the assessment of past uses and the type of site.

Assessments and Reports - Continued

A QP must also be used to complete these assessments and reports:

- **Soil Characterization Report**: this report documents the results of sampling and analysis, if required, and provides a description of excavated soil or crushed rock which may be reused, with or without processing, at the project area, and which excess soil may be deposited at a Class 1 site or landfill. This report will also identify the type of potential reuse sites to which excess soil from the project area may be transported.
- **Excess Soil Destination Assessment Report**: this report documents information on the reuse sites or other sites (such as landfills, dumps, Class 1 soil management sites, and Class 2 soil management sites) at which excess soil will be deposited. The information helps to verify that intended reuse sites are willing to accept excess soil from the project area and that the excess soil is of appropriate quality and quantity for the intended beneficial reuse. Contingency measures must be identified in the report in the event that excess soil cannot be deposited at an intended site, including the location of an alternate deposit site (which may include returning the excess soil to the project area where it originated).

The certifications related to these reports must be completed by a QP, not a supervisee.

Other Project Area and Project Leader Responsibilities

- Even if the planning requirements are not triggered, there are still a number of regulatory requirements and responsibilities at the project area site
- For example, regardless of the volume of excess soil being moved, or if the planning requirements are triggered or not, excess soil quality must be determined to be appropriate for the planned reuse site(s) of interest
- A reuse site owner or operator must agree in writing to accept soil from a project area. It is necessary for a project leader or QP to confirm with the reuse site owner or operator which excess soil quality standard, site-specific standard or instrument-specific standard applies to that reuse site.
    - A reuse site owner or operator has the discretion to set more stringent standards than the regulation requires and to ask for additional information to demonstrate that the excess soil meets those standards.
    - If there is a site-specific instrument, such as a municipal fill permit, that recognizes a need for fill to complete an undertaking, and it includes conditions related to the quality of excess soil that may be deposited, then the conditions in that site-specific instrument apply.

Other Project Area and Project Leader Responsibilities

- The project area must also ensure the appropriate hauling records are provided to drivers with key details on the soil that is loaded for transport, drivers will be responsible for recording and providing key information about the deposit of soil to the reuse site owner or operator
- Each project is unique, in some soil movements e.g., salt-impacted soil, key information about the salt-impacted soil needs to be provided by the project leader to the reuse site owner or operator:
    - Notification that the soil may be impacted
    - Any sampling and characterization reports prepared
    - Any identified potential risks to surface and/or groundwater
- Project leaders for sites generating excess soil are required to keep copies of most documents they create or receive per the requirements of the regulation for seven years. This would include the written consent obtained from reuse sites to move excess soil to those locations, and any reports to fulfill excess soil reuse planning requirements (if applicable).

Key Definitions

Excess Soil: soil, crushed rock, or soil mixed with rock or crushed rock, that has been excavated as part of a project and removed from the project area for the project

Crushed Rock: a naturally occurring aggregation of one or more naturally occurring minerals that is mechanically broken down into particles that are smaller than 2 millimeters in size or that pass the US #10 sieve

Liquid Soil: soil that has a slump of more than 150 millimetres using the Test Method for the Determination of "Liquid Waste" (slump test) set out in Schedule 9 to Regulation 347

Project: any project that involves the excavation of soil and includes:
(a) any form of development or site alteration
(b) the construction, reconstruction, erecting or placing of a building or structure of any kind
(c) the establishment, replacement, alteration or extension of infrastructure, or
(d) any removal of liquid soil or sediment from a surface water body

Beneficial Purpose: the use of excess soil in an undertaking that requires additional soil in order to complete that undertaking. Examples of beneficial purposes include backfill or raising the grade for a planned development. Simple disposal or stockpiling of excess soil is not a beneficial reuse. Often a site-specific instrument would relate to the beneficial purpose, giving permission for soil management for a specified undertaking.

Key Definitions

Infrastructure: all physical structures, facilities and corridors relating to:

(a) public highways

(b) transit lines and railways

(c) gas and oil pipelines

(d) sewage collection systems and water distribution systems

(e) stormwater management systems

(f) electricity transmission and distribution systems

(g) telecommunications lines and facilities, including broadcasting towers

(h) bridges, interchanges, stations and other structures, above and below ground, that are required for the construction, operation or use of the items listed in clauses (a) to (g), or

(i) rights of way required in respect of existing or proposed infrastructure listed in clauses (a) to (h)

Who is a Project Leader

- A project leader means, in respect of a project, the person or persons who are ultimately responsible for making decisions relating to the planning and implementation of the project
- They are the person or person(s) who is the proponent for a project
- Under the regulation, contractors and/or QPs would **not** become the project leader, as the responsibility for key decisions and compliance ultimately rests with the project leader
- Examples of project leaders for a project:
    - A municipality or public body responsible for an infrastructure project
    - The owner of a property or a developer of a property that may own or lease the property for the purposes of development
    - An employee of a corporation that has the responsibility and authority to bind the corporation

Who Qualifies as “Qualified Person”

- A Qualified Person or QP is a professional engineer or professional geoscientist for the purpose of completing or supervising excess soil planning requirements under the regulation, consistent with section 5 of the Record of Site Condition Regulation
- If the Beneficial Reuse Assessment Tool (BRAT) is used to develop site-specific excess soil quality standards, a QP as described in section 6 of the Record of Site Condition Regulation may be utilized. If a Risk Assessment (RA) is done, it must be a QP as described in section 6.
- Outside of the regulatory requirements, QPs may be retained by a project leader to provide additional oversight on excess soil management activities:
    - Sampling and management at temporary soil storage and/or processing sites
    - Project area due diligence sampling where the regulation does not trigger the sampling rules for the project area
- For larger soil management projects, QPs may also be hired by other parties involved and responsible for soil management activities, beyond the project leader of the project area e.g., for additional oversight at the reuse site or at a temporary soil storage and/or processing facility not managed by the project area owner / project leader

How to Define Your Project Area

The project area is a single property or adjoining properties on which the project is carried out

- Properties are adjoining if the boundary of one property touches or, were it not for an intervening highway, road allowance, railway line, railway allowance or utility corridor, would touch the boundary of the other property

Project areas are determined on a case-by-case basis. Some key factors include:

- The project area relates to the complete project, not only the area of excavation; it includes areas of soil storage, processing or loading, and other areas of construction, material storage or operations related to the project (off-site storage locations like Class 2 soil management sites are **not** included)
- If a project is being undertaken on one or more distinct properties, the project area includes that entire property
- The project area may span more than one property provided they are being used as part of the project and are contiguous, they would also have either common ownership or control by the project leaders
- For projects being undertaken in locations without distinct property boundaries on all sides, such as a road corridor, the area of continuous operations defines a project area, however, multiple separated work locations throughout a corridor or in different corridors would be distinct separate project areas

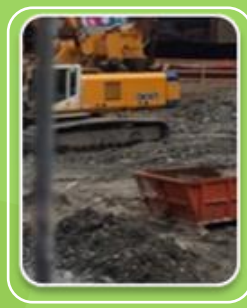
How to Define Your Project Area - Continued

Key factors for determining project area, continued:

- Multiple projects under one contract do not become a single project or project area, unless they are contiguous
- One project or project area could relate to multiple types of infrastructure or other works; for example, one project could be installing water sewer and storm water infrastructure in a contiguous area
- Off-site, temporary storage areas such as Class 2 soil management sites and local waste transfer facilities would not be part of the project area

- As stated above, the regulation does not set project areas based on contracts. One contract may apply to a portion of a project, a complete project, or multiple projects. Areas that are not contiguous, even under one contract, are their own project areas. These areas should also not get combined for determining the total amount of excess soil leaving a project area as it applies to this regulation.

Best Practices

Best Practices

Early Planning and Onsite/Local Reuse

- **Maximize the onsite reuse of excess soils or crushed rock** at the project area through use of innovative design (e.g., berms, new paths or roads) to reduce the regulatory rules while achieving a number of economic and environmental benefits e.g., reduced hauling and reuse/disposal needs
- Reusing excavated soil or crushed rock within the project area also limits the need to import excess soil from other project areas
- If onsite reuse is limited, **seek local reuse opportunities** through liaison with your soil community and by checking out the new online registry once launched, reuses **between local infrastructure projects** are also promoted within the regulation
- **Early planning at the design stage of the project** (e.g., integrate soil reuse into project design, sub-division or site planning, or site alteration permits) to maximize reuse potential
    - Large scale planning initiatives, like district or secondary plans, should be able to plan for a **balance of cut and fill and soil reuse** across the planning area
- Under the oversight of a QP, develop an **excess soil management plan** for your project to lay out the key roles, responsibilities and details for delivery of your project, see BMP on excess soil management plans (slide 35)

Best Practices - Continued

Contracts

- Establish **clear and concise contractual arrangements** for any tasks that will be delivered by other parties

Project Area

- Clearly **define your project area**, ensure your project area includes the areas used for storage, processing, loading and potential reuse onsite

Soil Sampling and Tracking

- Sampling requirements are in place for larger and risker project areas; however, all sites are recommended to **consider hiring a QP to undertake sampling of your soil**, particularly if the soil is going to a reuse site; assessing past and current uses may be sufficient in lower risk sites
- Maximize efficiencies of tracking systems in all aspects of soil management, significant cost to be harnessed through **utilization of live real time platforms** which can be used to meet hauling record and tracking system requirements of the regulation, to monitor and make improvements in operational efficiencies and provides immediate notification of activities and any issues that may arise

Best Practices - Continued

Interacting with Reuse Site Operators and Soil Haulers

- For the regulation to be efficiently implemented, information sharing between some parties is necessary. Some examples include:
  - With reuse sites, sharing excess soil assessment information to help confirm that they are willing to accept excess soil from a particular project, written confirmation from reuse sites confirming that they agree to take excess soil from that project area, and coordination of tracking procedures to confirm receipt of excess soil
  - Information provided to haulers transporting excess soil by the project leaders, that confirms where the excess soil is to be deposited, contact information and contingency sites if that deposit site is not available

Best Practices - Continued

Excess Soil Management Plan

- The project leader of a project generating excess soil should consider retaining a QP to develop an excess soil management plan to integrate all regulatory requirements, and to ensure soil is properly managed and tracked.
- These items should be included in the excess soil management plan:
  - All reports completed related to the excess soil management activities: assessment of past uses report (or phase one ESA), sampling and analysis plan, excess soil characterization
  - A site plan that identifies all areas to be excavated, with the estimated volume and soil type and quality of each area, as well as areas for reuse, storage and processing
  - Procedures for on-site excavated soil or crushed rock management, including any intended on-site processing and segregation of excavated soil or crushed rock of various qualities
  - The estimated volume of excess soil to be taken off-site from the project area
  - A list of potential receiving sites for various soil qualities, including an excess soil destination assessment report, if completed
  - Procedures for tracking of excess soil to reuse sites or other destinations
  - Record keeping procedures
  - Identification of relevant site-specific instruments or regulatory requirements that may apply to the project area and soil-related activities, such as the intent to file a record of site condition
  - Requirements and procedures respecting cultural heritage and natural heritage assessments and associated soil management considerations

Environment, Conservation, and Parks

Frequently Asked Questions and Answers

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Frequently Asked Questions and Answers

1. What is out of scope of the Regulation?

There are certain circumstances and materials for which the regulation does not apply, and for which other regulatory regimes may apply, including:

- Reuse of rock unless mixed with excavated soil
- Excavated soil or crushed rock that meets the definition of hazardous waste
- Asbestos waste
- The operation of a pit or quarry from which aggregate as defined in the *Aggregate Resources Act* is excavated (including the use of material from these operations and use or production of recycled aggregate at these sites), except the deposit and final placement of excess soil at a pit or quarry for reuse at the pit or quarry, including for the purpose of rehabilitation
- The excavation of topsoil based on a permit under the *Aggregate Resources Act*
- Peat production from a peat excavation operation
- The final placement of excess soil on the bed of surface water body

Frequently Asked Questions and Answers

2. What constitutes maintenance in a fit state of repair for an infrastructure project?

- Maintaining infrastructure in a fit state of repair is an exemption from the excess soil planning requirements under Schedule 2 to the regulation; this exemption does not, however, apply to excess soil excavated from a stormwater management pond for the purpose of maintaining the facility
- In general, maintaining in a fit state of repair would include cleaning out infrastructure, repairing infrastructure or replacing existing infrastructure with similar infrastructure; it would not result in increased capacity or a different alignment
- In scope examples may include culvert replacement, roadbed repair or pipe replacement, including temporary infrastructure that is part of the maintenance process, such as a by-pass pipe or a minor road diversion or replacing a pipe by laying a new parallel pipe to allow the old one to stay in service until the new one is finished
- Out of scope examples include new construction such as building a road, or a transit right of way, digging a tunnel for a new subway or digging a new sewage/watermain, tunnel, re-aligning (vertically or horizontally), twinning, or adding capacity or widening of a pipe or road

Frequently Asked Questions and Answers

3. Can sampling take place offsite from the project area?

- In general, the regulation requires sampling to take place at the project area, before excess soil is moved offsite
- However, it is recognized that sometimes it is not practical or feasible to sample at the project area, as such the regulation provides flexibility for sampling to occur “promptly” upon arrival at a temporary site (either a class 2 soil management site or a local waste transfer facility are permitted)
- The requirements on who must conduct this sampling is the same regardless of where the sampling takes place, this must be undertaken by or under the supervisions of a QP

Frequently Asked Questions and Answers

4. What is considered a beneficial purpose for reuse of excess soil?

- In order to avoid the waste designation when excess soil is being reused, there must be a beneficial purpose for the excess soil at the reuse site
- Generally, a beneficial purpose for the reuse of excess soil is use of excess soil in an undertaking that requires additional soil in order to complete that undertaking
- The regulation gives a list of potential beneficial purposes, including backfill or raising the grade for a planned development, but it is not an exhaustive list and other beneficial purposes can be identified
- Often a site-specific instrument would relate to the beneficial purpose, giving permission for soil management for a specified undertaking or including plans that would require excess soil for the project at the reuse site to be achieved
- Simple disposal or stockpiling of excess soil is not a beneficial reuse

Frequently Asked Questions and Answers

5. What requirements apply to smaller source sites?

- The criteria specified in section 3 of the regulation for reuse of excess soil that is not designated a waste, applies to all excess soil from a project, regardless of the amount of excess soil leaving a project area.
- The excess soil reuse quality standards apply to that excess soil, and if there is any concern that the excess soil may contain contaminants, then some sampling and analysis may be required.
- Excess soil reuse planning requirements (such as filing a notice and mandatory sampling and analysis), would often not apply to sites removing less than 2000 m^3 of excess soil from the project area. However, these planning requirements may apply to smaller projects if the excess soil is from an enhanced investigation site, like an industrial location or gas station, or another site that is a soil remediation project.

Frequently Asked Questions and Answers

6. What are the excess soil restrictions for landfills?

- Excess soil that is suitable for reuse should be viewed as a resource and not disposed of as a waste.
- The regulation restricts cleaner quality excess soil from filling up valuable landfill space, as of January 1, 2025.
- More specifically, excess soil may not be deposited at a landfill or dump if that excess soil meets Table 2.1 (full depth potable) of the generic excess soil quality standards for residential, parkland or institutional uses.
- However, it is recognized that excess soil that meets this level of quality may be required by a landfill for daily or final cover, or for other beneficial uses to support their operational needs, which will continue to be permitted.

Frequently Asked Questions and Answers

7. How is the Ministry outreaching on the new Regulatory requirements?

Building on a number of years of engagement in development of the regulation, the ministry continues to outreach to those involved in excess soil management through:

- Delivery of 8 topic focused webinars in October and November 2021, with a focus on the new regulatory requirements coming into force January 1, 2022
- Release of a number of topic specific fact sheets to provide guidance on the regulatory requirements along with sharing of best practices (release is forthcoming)
- Working with RPRA to deliver outreach and awareness of the new public Registry
- Continuing to respond to questions from the stakeholder community
- Responding to invitations to speak at conferences, workshops and events
- Ongoing engagement of the Excess Soil Engagement Group, a multi-stakeholder group representing a variety of key organizations from all sectors of excess soil management
- Visit MECPs excess soil webpage for current regulations, tools and guidance: https://www.ontario.ca/page/handling-excess-soil

Environment, Conservation, and Parks

Bio Break - Health Break

Ontario

Open Discussion, Additional Question and Answer Period

Additional Resources

Additional Resources and Our Coordinates

Resources may also be found at:

- **ontario.ca/page/handling-excess-soil**
- **rpra.ca/excess-soil-registry**

For Further Contact:

- **Policy** - Laura Blease laura.blease@ontario.ca, Karan Jandoo Karan.Jandoo@ontario.ca and Reema Kureishy Reema.Kureishy@ontario.ca
- **Regional Operations** - Lisa Tanaka lisa.tanaka@ontario.ca
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- **Approvals** - Andrew Neill andrew.neill@ontario.ca
- **Brownfields** - Dean Therrien dean.therrien@ontario.ca

THANK YOU!

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Appendices

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Appendix A - Soil Storage Rules

The following applies to **dry soil** stored at any site, including a project area:

- Soil to be stored and managed to prevent any adverse effects associated with its receiving, processing, storage and movement - to manage noise, dust, mud tracking, leaching, run-off and erosion as well as any potential air or odour impacts
- Soil must be stored in stockpiles and the maximum size of each stockpile shall not exceed 2,500m³
- Any soil that is sampled and analysed must be kept segregated from other soil and soil of different qualities intended for different beneficial uses
- The soil must not be stored within 30 metres of a waterbody and within 10 metres of the property line (boundary), unless any of the following apply:
    - 500m³ or less of excess soil will be stored at any one time at the project area
    - Excess soil storage at the project area for a week or less
    - The storage location has a physical barrier (e.g., concrete wall) between the excess soil and the property boundary
    - The storage is taking place in a public road right-of-way
- Soil shall be stored in a manner that prevents any contaminants from the soil from leaching into the ground water

Appendix A - Soil Storage Rules

The following applies to **liquid soil** stored at either a project area or a local waste transfer facility:

- All storage and processing locations of liquid soil, processed or dewatered or solidified soil and process residues shall be readily accessible for inspection by a provincial officer
- No more than 10,000m³ of liquid soil, processed or dewatered or solidified soil and process residues may be present at the site at any one time
- All liquid soil, processed or dewatered or solidified soil and process residues that are liquid shall be stored in a leakproof container on an impermeable surface in a manner sufficient to contain and prevent the material from escaping into the natural environment

Appendix B - Tracking System Requirements

- The tracking system must capture the total number of vehicles and total volume of excess soil that has left a project area and be able to produce reports upon request to respond to any inquiries with respect to the information of each load of excess soil to be tracked
- The tracking system must also include procedures or other methods to verify the accuracy of the information required to be tracked in respect of each load and to prevent any form of fraud or other wrongdoing in the excess soil management
- A tracking system must be capable of tracking the following information in respect of each load of excess soil that is removed from the project area:
    1. The locations of the project area where the soil was excavated and stockpiled, if applicable, and the quality of the soil associated with those locations and stockpiles.
    2. The quality of the load of excess soil being removed from the project area, unless the excess soil is to be sampled at a Class 2 soil management site or a local waste transfer facility.
    3. The quantity of the load of excess soil being removed from the project area.
    4. The location of the site at which the excess soil is to be deposited as communicated to the driver of the vehicle.
    5. The date and time the excess soil left the project area.
    6. The person from the project area responsible for overseeing the loading of the excess soil for transportation.

Appendix B - Tracking System Requirements Continued

7. The name of the corporation, partnership or firm transporting the excess soil, the name of the driver of the vehicle and the number plates issued for the vehicle under the Highway Traffic Act.
8. The date and time the excess soil was received at the site where the excess soil has been deposited.
9. The contact information of the person who acknowledged receipt of the load of excess soil on behalf of the site where the excess soil was deposited.
10. Confirmation that the vehicle that deposited the excess soil and the volume of soil received at the site where the excess soil was deposited is the same as that which left the project area.

Excess Soil Webinar Series

2. Reuse Sites

Date and Time: October 29th, 2021

9:00am to 11:00am

Ontario

Excess Soil Webinar Series - Schedule

Topic Areas	Date and Time
1. Project Area - Source Sites	**Wed October 27th, 2021 9:00am to 11am**
2. Reuse Sites	Fri October 29th, 2021 9:00am to 11am
3. Transportation of Excess Soil (Dry and Liquid)	Wed November 3rd, 2021 9:00am to 11am
4. Infrastructure Projects	Fri November 5th, 2021 9:00am to 11am
5. Excess Soil Registry - Regulatory Requirements	Fri November 12th, 2021 9:00am to 11am
6. Vac Trucks and Liquid Soil Management	Fri November 19th, 2021 9:00am to 11am
7. Qualified Persons (QP) and Excess Soil Planning	Wed November 24th, 2021 9:00am to 11am
8. Soil Depots and Storage Sites	Fri November 26th, 2021 9:00am to 11:00am

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Presentation Overview

- Welcome to Webinar Series - 2 - Reuse Sites
- Overview of Regulatory Requirements
- Best Management Practices
- Frequently Asked Questions and Answers
- Health Break
- Open Discussion, Additional Question and Answer Period
- Additional Resources and Opportunities
- Appendix A: Soil Storage Rules

Your MECP Excess Soil Team

Some of our MECP team members include:

Policy
Chris Lompart
Laura Blease
Karan Jandoo
Reema Kureishy

Legal
Hayley Valleau
Jamie Flagal

Approvals
Andrew Neill

Standards
Brigid Burke
Chi Hoang
Paul Welsh

RSC and Brownfields
Dean Therrien
Michelle Zehr

Operations
Lisa Tanaka

Environment, Conservation, and Parks

Overview of Regulatory Requirements Relevant to Reuse Sites

Toronto waterfront, Don River project filling - MECP, Jan. 2019

DISCLAIMER

This presentation is intended to be a brief summary of some of the requirements of Ontario Regulation 406/19 On-Site and Excess Soil Management (the regulation) made under the Environmental Protection Act and the Rules for Soil Management and Excess Soil Quality Standards - a document incorporated by reference by the regulation. This is for information purposes only and should not be construed as legal advice or substitute for seeking independent legal advice on any issues related to the regulation. Any person seeking to fully understand how the regulation may apply to any of the activities they are engaged in must refer to the regulation. In the event of any inconsistency between the regulation and this presentation, the regulation will always take precedence.

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Overview of Regulatory Requirements

- Regulation titled **O. Reg. 406/19: On-Site and Excess Soil Management** under the Environmental Protection Act (EPA), was finalized in December 2019, supported by:
  - Rules for Soil Management and Excess Soil Quality Standards
  - Beneficial Reuse Assessment Tool (BRAT)
  - Complementary provisions in O. Reg. 153/04 (Record of Site Condition Regulation), Reg. 347 and O. Reg. 351/12 (Waste Management Regulations)

Phased Regulatory Implementation	Timing
Reuse Rules and Waste Designation Clarification - Including excess soil reuse standards	January 1, 2021

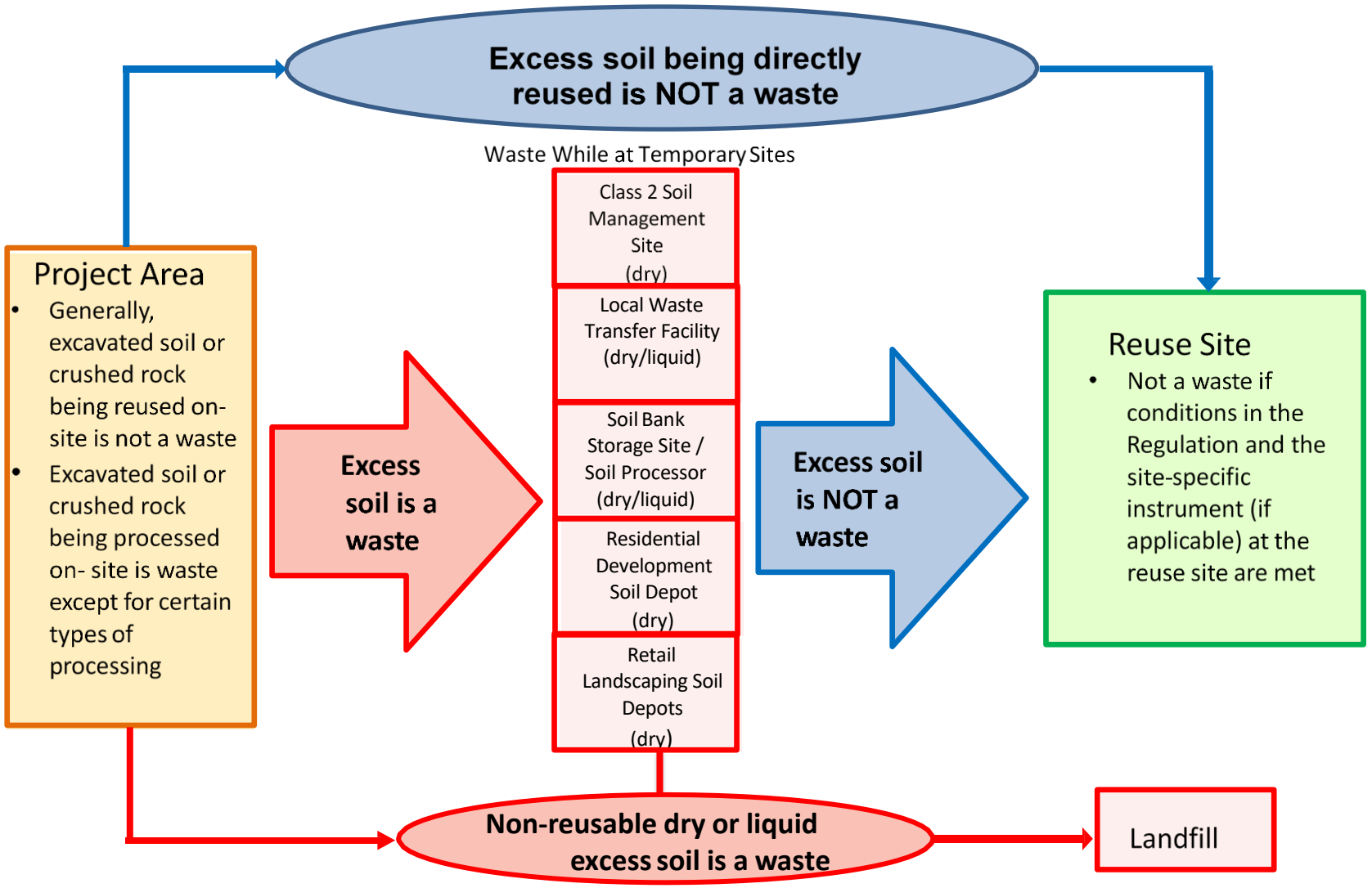
Excess Soil Reuse Planning Requirements
- For larger or riskier generating projects (some exemptions)
  - Assessment of past uses, and if required sampling and characterization
  - Destination assessment report
  - Tracking and registration
- Hauling record
- Larger reuse site registration
	January 1,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

Restriction on the deposit of clean soil at landfill sites	January 1, 2025

Rules for Excess Soil Reuse

- Excavated soil or crushed rock becomes excess soil upon leaving a project area.
- Generally, soil and rock staying in the project area is not a waste and can be reused.
- The rules for reuse of excess soil are found in sections 3, 4 and 5 of the regulation, which then refer to other key sections of the regulation and both parts of the Rules for Soil Management and Excess Soil Quality Standards.
- In order to be reused and not designated as waste, excess soil being reused at another site must meet all of these conditions:
    1. The excess soil is directly transported to a reuse site from a project area, a Class 1 soil management site or Class 2 soil management site, or local waste transfer facility
    2. The owner or operator of the reuse site has agreed in writing to deposit the excess soil at the reuse site
    3. There is a beneficial use for that excess soil and the quality and quantity of excess soil being taken to that site are consistent with the beneficial use
    4. The excess soil is dry soil and remains dry soil until it is finally placed at the reuse site, or, if it is liquid soil, a site-specific instrument authorizes the excess soil to be deposited at the reuse site
- These criteria are intended to ensure that the excess soil will be reused at the reuse site for a beneficial purpose and that the quality and quantity of the excess soil to be deposited at the reuse site for final placement are appropriate for that purpose

Waste Designation Flowchart



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Key Definitions

Excess Soil: soil, crushed rock, or soil mixed with rock or crushed rock, that has been excavated as part of a project and removed from the project area for the project

Liquid soil: soil that has a slump of more than 150 millimetres using the Test Method for the Determination of "Liquid Waste" (slump test) set out in Schedule 9 to Regulation 347

Reuse site: a site at which excess soil is used for a beneficial purpose and does not include a waste disposal site

Beneficial Purpose: the use of excess soil in an undertaking that requires additional soil in order to complete that undertaking. Examples of beneficial purposes include backfill or raising the grade for a planned development. Simple disposal or stockpiling of excess soil is not a beneficial purpose. Often a site-specific instrument would relate to the beneficial purpose, giving permission for soil management for a specified undertaking;

Key Definitions

Infrastructure: all physical structures, facilities and corridors relating to:

(a) public highways
(b) transit lines and railways
(c) gas and oil pipelines
(d) sewage collection systems and water distribution systems
(e) stormwater management systems
(f) electricity transmission and distribution systems
(g) telecommunications lines and facilities, including broadcasting towers
(h) bridges, interchanges, stations and other structures, above and below ground, that are required for the construction, operation or use of the items listed in clauses (a) to (g), or
(i) rights of way required in respect of existing or proposed infrastructure listed in clauses (a) to (h)

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

- The reuse site owner or operator confirms the quality and quantity of excess soil necessary for the intended beneficial use as part of an undertaking at the reuse site.
- The applicable excess soil quality for a reuse site may be:
    - a generic excess soil quality standard
    - site-specific standard, or
    - instrument-specified standard
- A reuse site owner or operator also has the discretion to set more stringent standards than the regulation requires.
- As part of consenting to receive excess soil from a project area, the reuse site owner or operator should confirm the quality and quantity required, and any other relevant soil characteristics (such as geotechnical) of the soil they are agreeing to receive.

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

- **Reuse sites governed by a site-specific instruments**:
  - the quality and/or quantity of excess soil appropriate for the beneficial purpose in an undertaking at that reuse site, and other performance and operational requirements, may be set by a site-specific instrument (e.g., municipal fill by-law, Aggregate Resource Act licence) and, if so, the rules specified by the site-specific instrument apply.
  - Typically, for excess soil quality, this could be a specific table of standards referenced in the instrument. If the instrument is not specific, such as generically referring to ministry requirements or "inert fill", then going forward the applicable generic tables for the reuse site under the regulation will apply.
  - If the site-specific instrument is silent on excess soil quality or quantity matters, then the rules in the regulation apply, including the applicable standards and rules in the Rules for Soil Management and Excess Soil Quality Standards.

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

- **Reuse sites not governed by a site-specific instrument:**
  - If an applicable instrument does not exist or address excess soil quality or quantity, then the rules set out in section 5 of the regulation must be met.
  - This includes ensuring the excess soil meets the applicable excess soil quality standards for that reuse site as set out in Part II: Excess Soil Quality Standards. These standards, in part, depend on the type of property use at the reuse site (such as agricultural, residential, etc.). This could also include the development of site-specific standards through the Beneficial Reuse Assessment Tool (BRAT).
  - Section 5 of the regulation also requires ensuring that no more excess soil is brought to the reuse site than is necessary for the beneficial purpose.
  - Depending on site characteristics, there may also be specific rules that apply to the final placement of the excess soil at that reuse site.

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

- Both the quality and quantity of the excess soil that is moving need to be considered
  - **Generic Excess Soil Quality Standards**
    - 2 volumes - small volume (up to 350m³, same as O. Reg. 153/04 for coarse textured soil) and volume independent
    - Based on land use category, similar to O. Reg. 153/04
    - Includes generic leachate screening level tables and ceiling value tables
  - **Site-Specific Excess Soil Quality Standards**
    - Site specific standards can also be developed by a QP using the Beneficial Reuse Assessment Tool (BRAT) or a risk assessment (RA).
    - It is required that site-specific standards and any associated risk management measures or site use characteristics be specified in an applicable site-specific instrument for all uses of risk assessment and any uses of the BRAT that rely upon specified site use characteristics (except for an infrastructure project).
  - **Reuse Rules for Specific Circumstances**
    - Rules for specific circumstances (e.g., crop land, environmentally sensitive sites, local background concentrations)
    - Rules for specific types of soil (e.g., soil with salt, soil mixed with compost)
- There are also general soil storage rules which apply to all sites e.g., set-backs from water bodies, pile size, etc. See Appendix A for details.

Excess Soil Quality Standards

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

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

Reuse rules for specific circumstances

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

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

Reuse rules for specific circumstances

Local background concentrations

- For exceedances due to local background concentrations, an excess soil quality standard is deemed to be met if a QP demonstrates that the excess soil contains a parameter that is naturally occurring at the reuse site, and not seen as an exceedance of the naturally occurring range of concentrations typically at the site
- Documented evidence of the naturally occurring concentrations must be provided to the reuse site owner/operator

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

Reuse rules for specific circumstances

Reuse of Salt Impacted Soils

- 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
  - 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 or operator.

Appropriate Quality and Quantity of Excess Soil at Reuse Sites

Reuse rules for specific circumstances

Other reuse rules for specific types of soil and reuse sites are also outlined within the Rules document, and include:

- Excess soil blended with compost
- Reuse of dewatered or solidified soil
- Excess soil with pH levels outside of acceptable range
- Rules for using stratified tables (Tables 4, 4.1, 5, and 5.1) at a reuse site

Requirements for Larger Reuse Sites

- Reuse sites accepting at least 10,000m^3 of excess soil for an undertaking will be required to:
  - **file a notice** on the public Registry
  - develop and **implement procedures to track and inspect** each load of excess soil being received
- For existing reuse sites, this requirement only applies if they accept more than 10,000m^3 **after** January 1st, 2022
- These requirements also don't apply to 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

Requirements for Large Reuse Sites

Filing a notice:

- For undertakings that receive more than 10,000m^3 of excess soil, the owner or operator of the reuse site must file a notice in the online, public registry developed and implemented by the Resource Productivity and Recovery Authority (RPRA). RPRA's website will contain information on how to file a notice in the Registry.
- This notice provides public transparency and assists with the ministry's compliance activities. It also enables others such as project leaders that generate excess soil, to be aware of larger, longer-term reuse sites to enable matching and reuse of excess soil from project areas. The notice must include prescribed information such as:
  - a description of the reuse site
  - the undertaking at that site
  - the amount and quality of excess soil needed
  - other key information on the site's operation
- Within 30 days of the final load of excess soil being received, the notice on the registry must be updated with information such as the total amount of excess soil received and the date the final load was received.

Requirements for Large Reuse Sites

Procedures for deposit of excess soil:

- Larger reuse sites must put in place procedures to account for every load of excess soil being deposited at the reuse site for final placement and to ensure that the storage of excess soil does not cause any adverse effects.
- The procedures are intended to help ensure that excess soil received is appropriate for the beneficial use and will not become waste. The procedures should include:
    - identification of the site where the excess soil is coming from
    - collection of relevant reports related to the excess soil (e.g., soil characterization reports, hauling records)
    - inspection procedures to assess the excess soil as it is received (e.g., visual signs of contamination, litter, etc.)

Storing Excess Soil at Reuse Sites

- Excess soil can be stored or stockpiled at a reuse site for up to two years after it is received for final placement at the reuse site
- This period can be extended for an additional five years with written permission from a Director of the ministry. This restriction helps ensure reuse sites can store excess soil in anticipation of it being needed in an undertaking, but not indefinitely
- Where the excess soil is to be used at a reuse site for an undertaking related to infrastructure, the time limit for storing excess soil at the site is not limited to two years, but equals the time required to complete the undertaking
- The two-year restriction also does not apply to undertakings at sites governed by a site-specific instrument
- Excess soil must be stored in accordance with the storage rules provided in the Rules document (see Appendix A for details)

Interactions with Project Leaders, QPs and Excess Soil Haulers

For the regulation to be efficiently implemented, information exchange between some parties is necessary. This applies to reuse site owners and operators in several ways:

- Reuse site operators must provide a written confirmation to project leaders, confirming that they agree to take excess soil from the project area. This helps ensure that the reuse site only receives the amount and type of excess soil it required. It is also a clear way for a reuse site owner/operator to communicate or confirm the quality of excess soil applicable to the reuse site
- Reuse sites may request excess soil assessment information from the project leader, or conduct additional testing, to help confirm the soil quality they may receive
- All haulers of excess soil will be required to carry a hauling record as of January 1st, 2022. A copy of the hauling record must be given to the owner/operator of the reuse site, and the owner/operator of the reuse site will have to acknowledge in the hauling record that the excess soil was deposited at their site. The record may also be of value to a reuse site owner/operator to help confirm where the excess soil came from

Best Management Practices




Ontario

Best Practices

- **Involvement of Qualified Persons (QP) at the reuse site**
  - Reuse sites generally are not required by the regulation to involve a QP, unless the BRAT or a RA is used to develop site-specific standards
  - However, the owner/operator of a reuse site should consider retaining the services of a QP to help ensure excess soil management planning meets requirements and best practices
  - The QP can assess the current site conditions of soil and ground water at the reuse site and also confirm the appropriate quality of excess soil to be received, giving thought to the reuse site conditions and future use of the property
  - They can also develop required procedures for receiving excess soil at a reuse site and can develop complete fill management plans. This is particularly advisable for reuse sites receiving larger amounts of excess soil or sites receiving excess soil from many different project areas

Best Practices - Continued

- **Site specific instruments**
  - Reuse site owners and operators should proactively undertake the due diligence necessary to determine what site-specific instruments, such as a municipal fill permit, may be required for an undertaking and before excess soil may be placed on their lands.
  - These instruments may include requirements related to the location, depth, quality and/or quantity of excess soil appropriate for the proposed beneficial purpose and undertaking on the reuse site.
- **Engaging communities**
  - Local landowners, community groups, Indigenous communities and others may have concerns regarding excess soil management
  - Owners/operators of larger reuse sites, sites handling riskier excess soil and sites where the activities will be occurring over a longer period of time, can assess early in the planning process potential anticipated concerns by affected parties and determine what engagement might be helpful
  - Where applicable, this could be done in conjunction with communication activities required for a site-specific instrument or other approvals that the reuse sites may need, such as those required for the purpose of zoning or permitting under municipal by-laws

Best Practices - Continued

- **Fill management plans**
  - The owner or operator of a large reuse site should consider preparing a fill management plan, which assesses site conditions, determines appropriate fill quality for the site, and details fill management procedures for the planned undertaking.
  - A QP could be hired to complete and implement such a plan. Such plans may be required through municipal by-laws.
  - The fill management plan may be a useful tool to integrate all regulatory requirements, and may include:
    - Copies of any documentations related to municipal or conservation authority licenses/permits
    - Identification of the appropriate types/quality of soil to be received at the site
    - Site plans and grading plans
    - Protocols for incoming excess soil (inspections, contingency measures, recordkeeping)
    - Audit sampling protocols
    - Soil placement and segregation protocol to identify where excess soil has been placed at the reuse site, for assessment if required

Best Practices - Continued

- **Requesting sampling and conducting confirmatory sampling of excess soil received**
  - Some larger and riskier project areas that generate excess soil are required to conduct assessments and sampling and analysis under the regulation, while other project areas do not have this requirement. However, they may still conduct some due diligence sampling, to confirm the excess soil meets the applicable excess soil quality standards as required by the regulation
  - Reuse sites may want to request sampling results before giving written consent to receive excess soil
  - Some reuse sites, especially larger ones, may also consider undertaking auditing/confirmatory sampling of excess soil being received. Auditing may be reduced if excess soil is confirmed to be from locations with little or no likelihood of contamination. An assessment of past uses or a phase one environmental assessment from the project area(s) can help to assess this

Environment, Conservation, and Parks

Frequently Asked Questions and Answers

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Frequently Asked Questions and Answers

What are the requirements for excess soil going to pits and quarries?

- The *Aggregate Resources Act* (ARA) applies to all pits and quarries on Crown land and designated private land in Ontario. In undesignated private land areas (pockets in northern Ontario) pits and quarries may be governed by the local municipal by-laws.
- While the regulation does not apply to aggregate that is excavated from pits or quarries, it does apply to the reuse of imported excess soil at a pit or quarry for a beneficial purpose, for example, rehabilitation of the site when the resource is depleted.
- Generally, site plans, licenses or permits under the ARA provide the authorization for the importation of fill at these sites, and when those conditions define more stringent excess soil quality standards, they take precedence over the excess soil regulation
- Unlicensed sites may be regulated through excess soil management rules in municipal by-laws
- If authorized by NDMNRF, the BRAT may be used to develop site-specific standards

Frequently Asked Questions and Answers

What rules apply to smaller reuse sites receiving less than 10,000m3 of excess soil?

- General soil reuse rules apply to **all** reuse sites, including the criteria used to determine whether soil is designated as a waste. Small reuse sites need to:
  - only receive excess soil for a beneficial purpose
  - consent in writing to receive excess soil from a project area
  - ensure that the excess soil received is of appropriate quality for the beneficial purpose and that the amount of excess soil received aligns with the beneficial purpose
  - only receive dry soil, unless a site-specific instrument authorizes receipt of liquid soil
  - follow soil storage rules before excess soil is finally placed
  - retain copies of all records generated in the excess soil movement and management activities undertaken for a period of seven years, with the exception of the hauling records which should be retained for two years
- The regulation does not affect the need for other approvals or permits that may be required by a municipality, conservation authority or other public body.

Frequently Asked Questions and Answers

What are the requirements for using the BRAT's six site use characteristics?

- BRAT provides the ability to quickly and easily generate site-specific standards using the same model that is used to derive the tables of generic excess soil quality standards
- There are six site use characteristics included in the BRAT that a QP may utilize:
    - Shallow soil cap barrier
    - Fill/hard cap barrier
    - Building with storage garage
    - Building prohibition
    - Building with no first store residential, parkland or institutional use
    - Building with minimum first storey ceiling height requirement
- Use of these six site use characteristics to adjust applicable exposure pathways should be used only if they reflect existing or planned permissible uses, and must be approved and documented in a site-specific instrument (this does not apply to final placement of soil for an infrastructure undertaking)

Frequently Asked Questions and Answers

What if the excavated soil and crushed rock is being reused within the project area?

- Excavated soil or crushed rock from the project area that is reused within the project area is not excess soil and is not designated waste. This allows these materials to be readily reused on-site and they are exempt from the excess soil reuse rules in the regulation, including the excess soil quality standards.
- While the excess soil reuse rules do not apply to excavated soil or crushed rock reused on-site, being familiar with them may prevent adverse effects.
- If a Record of Site Condition (RSC) will be filed for a project area, then any excavated soil or crushed rock that is to be reused within the RSC property must meet the applicable site condition standards of Ontario Regulation 153/04, including approved standards in a risk assessment under that regulation if developed, so that the RSC can be filed.
- Maximizing on-site reuse should be considered during the design of a project to avoid requirements that may apply to excess soil leaving a project area.
- If soil or crushed rock is excavated at the project area and temporarily stored at an interim site or in a vehicle off-site, then returned to the project area for reuse, it would not be subject to the requirements in sections 3, 4 and 5 of the regulation (the reuse criteria).

Frequently Asked Questions and Answers

What is the difference between depositing excess soil at reuse sites, versus at landfills or Class 1 soil management sites?

- Landfill sites and Class 1 soil management sites are waste disposal sites
- Disposal of excess soil at a landfill is not considered beneficial reuse under this regulation, and excess soil deposited at a Class 1 soil management site is not intended to stay there permanently. These sites also require waste Environmental Compliance Approvals (ECAs)
- Reuse sites are not a waste disposal site, have a beneficial reuse for excess soil as part of an undertaking, and generally do not require waste ECAs

Frequently Asked Questions and Answers

Does any documentation need to be submitted to the ministry, specifically where the BRAT was utilized to develop site-specific standards?

- For the BRAT**,** the qualified person retained to develop site-specific standards shall ensure that a copy of each of the following is given to the ministry in accordance with the Soil Rules:
    - A declaration attesting to the accuracy of the information and the assumptions provided as inputs for the BRAT
    - The output worksheet generated when using the BRAT

- There are generally no approvals required from the ministry for the use of the BRAT

Environment, Conservation, and Parks

Bio Break - Health Break

Ontario

Open Discussion, Additional Question and Answer Period

Additional Resources

Additional Resources and Our Coordinates

Resources and links:

- **Ministry's Handling Excess Soil page:** ontario.ca/page/handling-excess-soil
- **Resource Productivity and Recovery Authority – Excess Soil Registry:** rpra.ca/excess-soil-registry
- **Ontario Environment Industry Association Guidance Documents:** https://www.oneia.ca/excess-soil
- **Canadian Urban Institute Excess Soil By-Law Language Tool:** www.excesssoils.com
- **Ontario Society of Professional Engineers**: https://ospe.on.ca/excess-soil-reports

Additional Resources and Our Coordinates

MECP Contacts:

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- **Standards** - Paul Welsh paul.g.welsh@ontario.ca
- **Approvals** - Andrew Neill andrew.neill@ontario.ca
- **Brownfields** - Dean Therrien dean.therrien@ontario.ca

Ontario

Appendices

Ontario

Appendix A - Soil Storage Rules

The following applies to **dry soil** stored at any site, including a reuse site:

- Soil to be stored and managed to prevent any adverse effects associated with its receiving, processing, storage and movement - to manage noise, dust, mud tracking, leaching, run-off and erosion as well as any potential air or odour impacts
- Soil must be stored in stockpiles and the maximum size of each stockpile shall not exceed 2,500m³
- Any soil that is sampled and analysed must be kept segregated from other soil and soil of different qualities intended for different beneficial uses
- The soil must not be stored within 30 metres of a waterbody or within 10 metres of the property line (boundary), unless any of the following apply:
  - 500m³ or less of excess soil will be stored at any one time at the project area
  - Excess soil storage at the project area is for one week or less
  - The storage location has a physical barrier (e.g., concrete wall) between the excess soil and the property boundary
  - The storage is taking place in a public road right-of-way
- Soil shall be stored in a manner that prevents any contaminants from the soil from leaching into the ground water

Excess Soil Webinar Series

3. Transportation (Dry and Liquid Soil)

Date and Time: November 3rd, 2021
9:00am to 11:00am

Ontario

Excess Soil Webinar Series - Schedule

Topic Areas	Date and Time
1. Project Area - Source Sites	Wed October 27th, 2021 9:00am to 11:00am
2. Reuse Sites	Fri October 29th, 2021 9:00am to 11:00am
3. Transportation of Excess Soil (Dry and Liquid)	**Wed November 3rd, 2021 9:00am to 11:00am**
4. Infrastructure Projects	Fri November 5th, 2021 9:00am to 11:00am
5. Excess Soil Registry - Regulatory Requirements	Fri November 12th, 2021 9:00am to 11:00am
6. Vac Trucks and Liquid Soil Management	Fri November 19th, 2021 9:00am to 11:00am
7. Qualified Persons (QP) and Excess Soil Planning	Wed November 24th, 2021 9:00am to 11:00am
8. Soil Depots and Storage/Processing Sites	Fri November 26th, 2021 9:00am to 11:00am

Ontario

Presentation Overview

- Welcome to Webinar Series - 3 - Transportation (Dry and Liquid)
- Overview of Regulatory Requirements
- Best Practices
- Frequently Asked Questions and Answers
- Health Break
- Open Discussion, Additional Question and Answer Period
- Additional Resources and Opportunities

- Appendix: Tracking System Requirements

Your MECP Excess Soil Team

Some of our MECP team members include:

Policy
Chris Lompart
Laura Blease
Karan Jandoo
Reema Kureishy

Legal
Hayley Valleau
Jamie Flagal

Approvals
Andrew Neill

Standards
Brigid Burke
Chi Hoang
Paul Welsh

RSCs and Brownfields
Dean Therrien
Michelle Zehr

Operations
Lisa Tanaka

Overview of Regulatory Requirements Relevant to Excess Soil Transportation

Toronto Waterfront, Don River
Project Filling - MECP, Jan. 2019

DISCLAIMER

This presentation is intended to be a brief summary of some of the requirements of Ontario Regulation 406/19 On-Site and Excess Soil Management (the regulation) made under the Environmental Protection Act and the Rules for Soil Management and Excess Soil Quality Standards - a document incorporated by reference in the regulation. This is for information purposes only and should not be construed as legal advice or substitute for seeking independent legal advice on any issues related to the regulation. Any person seeking to fully understand how the regulation may apply to any of the activities they are engaged in must refer to the regulation. In the event of any inconsistency between the regulation and this presentation, the regulation will always take precedence.

Ontario

Overview of Regulatory Requirements

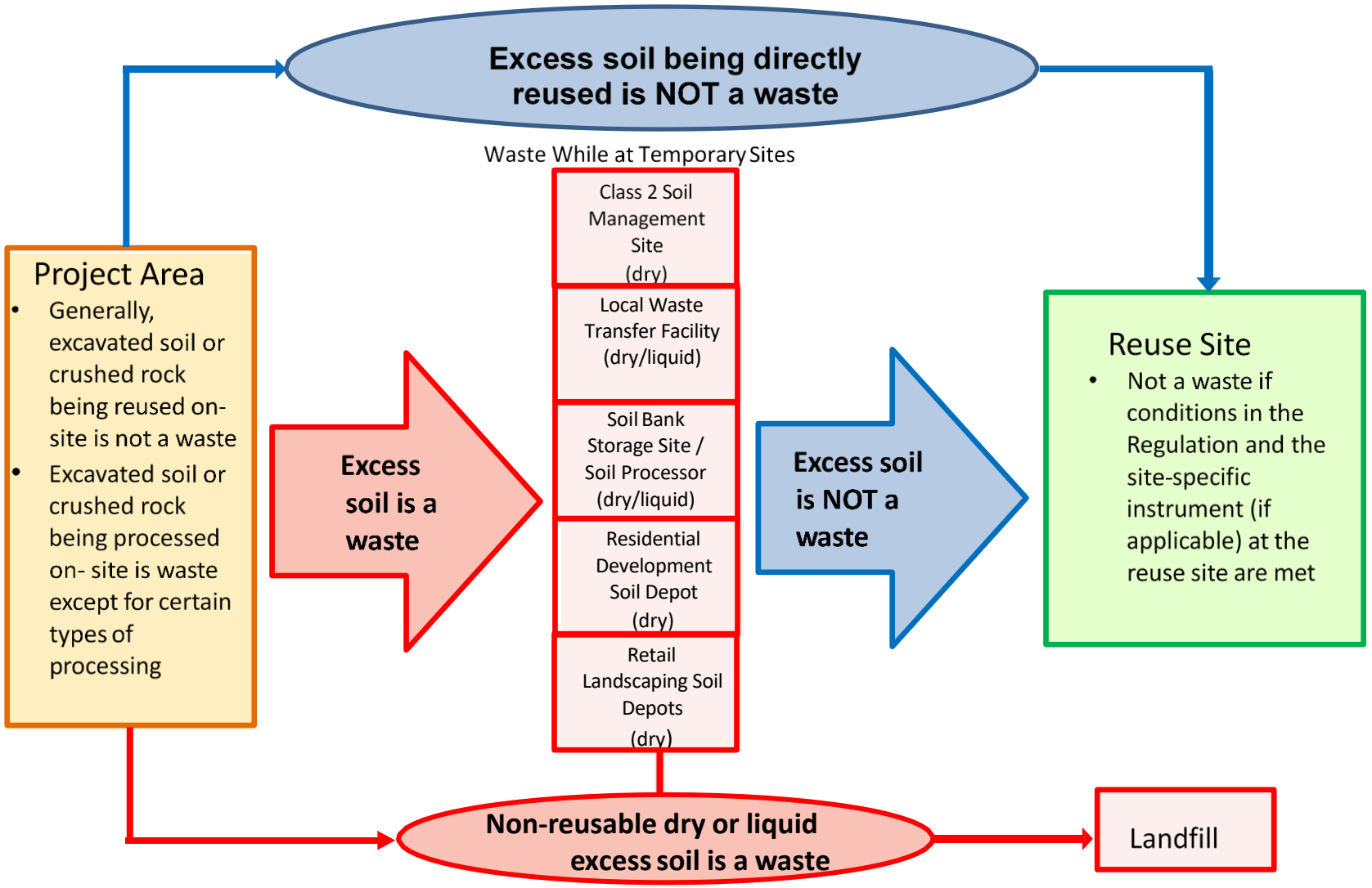
- Regulation titled **O. Reg. 406/19: On-Site and Excess Soil Management** under the Environmental Protection Act (EPA), was finalized in December 2019, supported by:
  - Rules for Soil Management and Excess Soil Quality Standards
  - Beneficial Reuse Assessment Tool (BRAT)
  - Complementary provisions in O. Reg. 153/04 (Brownfields Remediation Regulation), Reg. 347 and O. Reg. 351/12 (Waste Management Regulations)

Phased Regulatory Implementation	Timing
Reuse Rules and Waste Designation Clarification - Including excess soil reuse standards	January 1, 2021

Excess Soil Reuse 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

Restriction on the deposit of clean soil at landfill sites	January 1, 2025

Waste Designation Flowchart



Ontario

Overview of Regulatory Requirements

As of **January 1, 2021**:

- Haulers of both dry and liquid soil are responsible to have key information available at all times during transportation related to the excess soil they are transporting (e.g., locations excess soil is transported to and from, date, time and quantity loaded)
- The location where excess soil is to be transported to will be provided to the hauler, by the project leader, or another designate at the project area, **it is never the responsibility of the hauler to decide where excess soil is to be deposited**
- New requirements for vehicles that are used in the transportation of excess soil must ensure safe containment during transportation, with additional requirements for liquid soil

As of **January 1, 2022:**

- Haulers are required to carry a physical or electronic hauling record during all times of transport
- Hauler must provide the hauling record to the site which will be accepting the excess soil for deposit for a beneficial reuse, or for temporary storage, processing or disposal

General Requirements for Transporting Excess Soil

- Under the regulation, a waste environmental compliance approval (ECA) or environmental activity and sector registry (EASR) is not required for the transportation of dry or liquid soil, these have been replaced with regulatory rules
- Under subsection 1(3) of Regulation 347 excess soil that is liquid soil is excluded from the definition of "subject waste", and therefore generator registration and manifesting requirements do not apply to the management of liquid soil
- The regulation **does not apply in respect of hazardous waste, asbestos waste or other types of waste** within the meaning of Regulation 347 **or to hauled sewage** which is managed under O. Reg. 351/12, existing regulatory rules for the transportation or management of these materials continue to apply

General Requirements for Transporting Excess Soil

The owner and operator of a vehicle transporting excess soil must ensure that the excess soil is collected and transported in accordance with the following rules:

- The excess soil is collected and transported in a vehicle that has been constructed to enable the excess soil to be transferred safely and without nuisance
- Bodies of vehicles are constructed to withstand abrasion and corrosion from the excess soil (not including normal wear and tear)
- Bodies of vehicles are leakproof and covered where necessary to prevent the emission of offensive odours, the falling or blowing of material from the vehicle or the release of dust or other airborne materials that may cause air pollution

In addition, the owner and operator of a vehicle that is transporting liquid soil:

- Are required to ensure that valves that are part of the vehicle have a locking system and are locked when the vehicle contains liquid soil
- The owner or operator of the vehicle must be present whenever liquid soil is being transferred into and out of the vehicle

Current Excess Soil Hauling Requirements

The information required to be provided by a hauler to a provincial officer upon request, verbally or in another form **prior to January 1, 2022**, at any time during transit includes:

- The location where the excess soil was loaded for transportation
- The date and time the excess soil was loaded for transportation
- The quantity of excess soil in the load
- The name of an individual who may be contacted to respond to inquiries regarding the load, including inquiries regarding the excess soil quality
- The name of the corporation, partnership or firm transporting the excess soil
- The name of the driver of the vehicle and the number plates issued for the vehicle under the Highway Traffic Act
- The location at which the excess soil is to be deposited

The project leader or the operator of a project area are also required to confirm contingency measures if a deposit location cannot be used for various reasons upon arrival, this information shall be provided to the hauler before transit begins

Hauling Record Requirements - January 1, 2022

As of January 1, 2022, the information required to be available from a hauler during transportation must be in the form of an electronic or physical hauling record to be carried by the hauler at all times during transportation, the hauler must not leave a project area with excess soil without this record

The hauling record must contain the following information:

- The location where the excess soil was loaded for transportation
- The date and time at which the excess soil was loaded for transportation
- The quantity of excess soil in the load
- The name of an individual who may be contacted regarding inquiries about the Load, including the excess soil quality
- The name of the corporation, partnership or firm transporting the excess soil
- The name of the driver of the vehicle and the number plates issued for the vehicle under the Highway Traffic Act
- The location of where the load is to be deposited

If the excess soil is denied at a deposit location due to concerns regarding its quality, it should never be taken to an unplanned deposit site. Any alternate site at which excess soil is deposited must be directed by the project leader or the operator of a project area and must reflected on the hauling record.

ONEIA - Hauling Template for Multiple Loads

<Insert your company logo here>

Excess Soil Multiple Pickup Hauling Record

P/O Ticket _____

REGISTERED GENERATOR: Location 1		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code

GENERATING SITE			
	Street Address	City	Quantity
Location 1			
Soil Information			
Profile/ID #:	Other Notes:		
Quantity Loaded:			
Contact Name: (For soil quality info)	Tel:	Email:	

REGISTERED GENERATOR: Location 2		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code

GENERATING SITE			
	Street Address	City	Quantity
Location 2			
Soil Information			
Profile/ID #:	Other Notes:		
Quantity Loaded:			

REGISTERED GENERATOR: Location 3		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code

Highlighted sections denote required information to meet Section 18 (Information to be Provided) of Ontario Regulation 406/19: On-Site and Excess Soil Management

Template produced by the Ontario Environment Industry Association, 2020

GENERATING SITE			
	Street Address	City	Quantity
Location 3			
Soil Information			
Profile/ID #:	Other Notes:		
Quantity Loaded:			
Contact Name: (For soil quality info)	Tel:	Email:	

REGISTERED GENERATOR: Location 4		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code

GENERATING SITE			
	Street Address	City	Quantity
Location 4			
Soil Information			
Profile/ID #:	Other Notes:		
Quantity Loaded:			
Contact Name: (For soil quality info)	Tel:	Email:	

TRANSPORTER			
Transport Company	Address	City	Postal Code
Driver Name:		Tel:	
License Plate #:		Email:	

RECEIVER			
Receiving Company	Address	City	Postal Code
Date Unloaded:	Time Unloaded:	Lat.:	
		Long.:	

I hereby certify that the above listed material has been accepted and that the materials are representative of the materials outlined in the above.

Authorizer Name:	Tel:
Signature:	Email:

Record Keeping and Liquid Soil Requirements

Record Keeping

- The hauler and all individuals responsible for soil management, including the project leader or the owner or operator of the site where excess soil was deposited are required to keep a copy of completed hauling records for every load of excess soil transported
- Record retention requirements on the hauling record is for a period of at least two years after the day that the excess soil was loaded for transportation

Liquid Soil

- Under the regulation, liquid soil must be taken to an appropriate site for reuse, processing or disposal. Liquid soil may be taken to:
- An appropriate reuse site if a site-specific instrument (for example, a municipal fill by-law) specifically authorizes the deposit of liquid soil at the reuse site
- A Class 1 soil management site for the purpose of processing liquid soil from many locations (with a waste ECA)
- A local waste transfer facility operated by a public body or infrastructure company accepting liquid soil from their projects to dewater (without a waste ECA) or
- A waste disposal site (e.g., landfill or dump) that is authorized to take the liquid soil as waste (with a waste ECA)

Responsibilities of Project Area Loading Excess Soil

- Key information would be provided to the hauler for the hauling records, with details on the soil that is loaded for transport
- In particular, the location the excess soil is to be deposited must be confirmed by the project leader, who has responsibility to ensure the excess soil is taken to an appropriate reuse or other deposit site
- The information an excess soil hauler must have is provided by or confirmed by the project leader, operator or another person designated by the project leader as responsible for the transportation of excess soil from the project area

Responsibilities of Haulers Depositing Excess Soil

- When a hauler reaches the destination identified in the hauling record, the following information must be added to the hauling record, this is the **haulers responsibility**:
    - The date and time the load was deposited
    - The contact information for the individual at the deposit site who acknowledges that the excess soil has been deposited on the specified date and time, and
    - A declaration by the individual at the deposit site, stating that the individual acknowledges the deposit of the excess soil
- Once completed, a copy of the final hauling record shall be **provided by the hauler** to the individual at the deposit site who made the declaration for the deposit, as well as to project leader where the soil originated

Load Rejection at a Reuse Site

- It is **never the responsibility of the hauler to decide where excess soil is to be deposited,** this responsibility resides with the project leader or the operator of the project area

- The project leader or operator of the project area, must ensure that the site to which the excess soil is moving to is appropriate and a written agreement is required with the receiving site e.g., consent in writing from the reuse site owner

- For projects subject to the planning requirements, an excess soil destination assessment report must be completed by the project leader, this include **contingency measures** in the event that excess soil cannot be deposited as planned, including the location of an alternate deposit site for reuse, storage, processing or disposal

- Even if planning requirements are not triggered, in the event that a load is rejected at the intended deposit site, it is **always the responsibility of project leader or the operator of the project area to determine the alternate location** (which may include returning the excess soil to the project area where it originated)

Moving Soil Around a Project Area

- Although many of the rules from the excess soil regulation apply to excess soil that is moved off a project area, for some project that are large in nature, there is often a variety of activities occurring on-site, including transportation within the project area
- Although the hauling record requirements are not required within the project area, often project leaders or those with oversight of these sites may have requirements for haulers to adhere to related to these movements
- This includes Section 23 of the Regulation which provides rules to follow if unexpected contamination is discovered during excavation for which the project leader or the operator of any project area is required to develop and apply procedures for
- This applies to any person working in the project area, including the transporter of excess soil, who makes an observation, including any visual or olfactory observation, that suggests that the soil being excavated may be affected by the discharge of a contaminant
- As always existing legislation and regulations governing adverse effects need to be considered when partaking in soil management activities within a project area

Tracking Systems and Hauling Records

- After January 1, 2022, some project leaders will be required to register key information on soil movements to an online registry and establish tracking systems to confirm that each load of excess soil was taken to the agreed upon deposit site, in some projects hauling records will be an integral part of the tracking system
- If a tracking system is required, a project leader from the project area must also verify where the excess soil was finally placed - to track excess soil during its transportation and deposit
- The tracking system will include procedures to account for each load of excess soil moved from a project area, including its general quality, quantity and verification of the final site at which it was deposited
- If a tracking system is required under the regulation, it would inform the hauling record by ensuring that the appropriate quality of soil for a deposit site is loaded and reflected in the hauling record

To read more about the key requirements associated with the tracking system, see the Appendix and Section B of Part I: Rules for Soil Management.

Responsibilities of Reuse Sites Accepting Excess Soil

- Haulers of dry and liquid excess soil will be responsible for recording and providing key information about the deposit of soil to the reuse site owner or operator
- Before soil is transported to a reuse site, the owner or operator of the reuse site must have previously agreed in writing to accept soil from a project area
- It is necessary for a project leader or qualified person to confirm with the reuse site owner or operator which excess soil quality standard, site-specific standard or instrument-specific standard applies to that reuse site, this is not the haulers responsibility, and this information is determined before soil is loaded at the project area

Key Definitions

Excess Soil: soil, crushed rock, or soil mixed with rock or crushed rock, that has been excavated as part of a project and removed from the project area for the project

Liquid Soil: soil that has a slump of more than 150 millimetres using the Test Method for the Determination of "Liquid Waste" (slump test) set out in Schedule 9 to Regulation 347

Vehicle: includes a trailer or other equipment attached to the vehicle

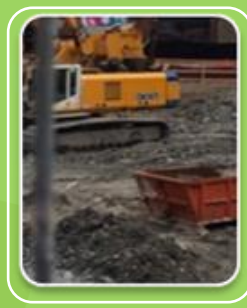
Project area: in respect of a project, a single property or adjoining properties on which the project is carried out

Reuse site: a site at which excess soil is used for a beneficial purpose and does not include a waste disposal site

Project Leader: in respect of a project, the person or persons who are ultimately responsible for making decisions relating to the planning and implementation of the project

Beneficial Purpose: the use of excess soil in an undertaking that requires additional soil in order to complete that undertaking. Examples of beneficial purposes include backfill or raising the grade for a planned development. Simple disposal or stockpiling of excess soil is not a beneficial reuse. Often a site-specific instrument would relate to the beneficial purpose, giving permission for soil management for a specified undertaking.

Best Practices

Best Practices

Hauling Routes and Delivery

- To reduce greenhouse gas emissions and transportation costs, it is recommended that haulers use the quickest and shortest route possible when transporting excess soil
- When planning routes for transportation between pick up and deposit sites, haulers should assess and adhere to all designated haul routes which may exist in specific municipalities they plan to travel through
- Haulers should also be aware of any site configurations or entrances that they are required to use when arriving at a destination to deposit excess soil
- Excess soil management plans and fill management plans are encouraged at project areas and receiving sites, these may specify transportation-related requirements at either site, such as preferred routes, timing, queuing, staging, parking, inspections, tracking processes, record management, etc. that apply to each load

Transportation Considerations

- It is recommended that the hauler shut down the vehicle when in truck queues or parking at the project area where excess soil is being loaded and at any destination sites to reduce greenhouse gas emissions
- When transporting, it recommended the hauler undertake adequate regular cleaning of the truck and tires to reduce any loose debris from falling and to prevent mud tracking

Best Practices - Continued

Liquid Soil and Hydro Excavation

- A hydro excavation (hydro-vac) truck is a hauler under the regulation, provided it is excavating and transporting excess soil (e.g., excavating to repair a watermain)
- Like other haulers, a hydro-vac truck operator is required to be able to provide a hauling record or information, on request, to a provincial officer and must ensure this information is completed and current and it is recommended to be easily accessible

Contracts and Requirements

- Establish clear and concise contractual arrangements for any tasks that will be delivered on behalf of other parties e.g., movements of soil from a project area, class 1 or class 2 soil management site or from a local waste transfer facility
- Ensure familiarity with additional requirements for your soil management activity, so appropriate time can be designated for the activity e.g., allow extra time for any applicable confirmatory sampling at reuse site

Vehicle Maintenance

- Ensuring your vehicle is maintained and safe for the road is required under this regulation, having a clearly documented plan and process to ensure vehicle maintenance is conducted on time is recommended

Best Practices - Continued

Excess Soil Hauling Record Template

- The regulation does not mandate the use of a specific form of hauling record, but instead specifies the information required to be included in the record. This allows companies to pick a format that works best for their needs and integrates with any related procedures and tracking systems
- The Ontario Environmental Industry Association (ONEIA) has developed and shared templates that can be considered for use by others, including templates for both single and multiple loads
- While this template is provided as a resource, it is the responsibility of the hauler to ensure they collect all of the required information
- The project leader and owner or operator of the deposit site must collaborate with the hauler to confirm the specific hauling record being used and ensure they receive the proper information when it is required

Best Practices - Continued

Collecting Excess Soil From Multiple Projects

- Multiple project areas can be listed in one hauling record if all the key regulatory requirements are addressed in the hauling record, use of a consolidated hauling record may be a more efficient process for collecting excess soil from multiple projects

- This includes the location of each project area at which excess soil was loaded and the location where the excess soil is to be deposited, among other key details on the soil movement (for example, date, time and quantity of excess soil loaded at each location)

- After the excess soil is deposited and a new load is started, a new hauling record should also be started

Environment, Conservation, and Parks

Frequently Asked Questions and Answers

Ontario

Frequently Asked Questions and Answers

1. If a reuse site owner does not accept the excess soil is there any flexibility for the hauler to select an alternative deposit location?

- No, the decision on where excess soil is to be deposited is the responsibility of the project leader from the site where the soil originated
- Before leaving the project area, key information would be provided to the hauler for the hauling records, including the location to deposit the soil and contingency measures i.e., an alternative site, in the event the load is rejected on the receiving end
- For projects subject to the planning requirements, a more formalized excess soil destination assessment report must be completed by the project leader, this include **contingency measures** in the event that excess soil cannot be deposited as planned, including the location of an alternate deposit site for reuse, storage, processing or disposal
- **It is never the responsibility of the hauler to decide where excess soil is to be deposited**

Frequently Asked Questions and Answers

2. In addition to exemptions from waste ECAs, are excess soil haulers also exempt from EASRs?

- Yes, excess soils and liquid soil that is managed under O. Reg. 406/19 are generally exempt from waste ECAs and EASRs
- However, in some cases (e.g., excess soil that is being transported to a waste disposal site), although O. Reg. 406/19 may not require a waste ECA haulers for these sites, in some cases these sites may only accept materials from waste ECA haulers e.g., landfill
- As such, it is always important for the project leader to confirm ahead with any receiving sites what additional requirements they may have in terms of approvals, testing, etc. for the soil that is planned to be moved

Frequently Asked Questions and Answers

3. Where can hydrovac companies take liquid soil that has been collected from multiple projects?

- As always, the quality of the materials that are being relocated are an important factor in where they may be suitable to deposit for reuse, processing, storage or disposal
- The project area where the materials originated will direct the hydrovac company where the excess soil is to be taken, hydrovac companies will never be responsible for deciding these locations
- For hydrovac operations that are collecting liquid soil of mixed qualities, including some soils with contamination and these materials are being mixed together, they will need to be deposited at a site with a waste ECA such as a soil processor or a landfill
- For collections of mixed materials that are not suspected to be contaminated there are other options for these types of movements such as deposit at a local waste transfer facility (if the movement falls within scope of these sites) or at a potential reuse site that may be suitable for this type of material
    - Depositing liquid soils at a reuse use is only permitted if a site-specific instrument (e.g., municipal fill permit), permits deposition of liquid soil

Frequently Asked Questions and Answers

4. Can liquid soil be taken offsite to dewater, if companies have ownership of the off-site location to dewater?

- The regulation provides some flexibilities for liquid soil to be dewatered off-site, some activities will require a waste-ECA and others may be exempt
- If liquid soil is moved to a local waste transfer facility that is being managed by a public body or by the infrastructure project where the soil originated, some low-risk soil processing activities such as passive dewatering and mechanical dewatering are permitted without a waste-ECA
- If, however, liquid soil is moved to an offsite location that is receiving multiple types of liquid soil from various locations (and as such does not fall under the umbrella of a local waste transfer facility), this site would be considered a Class 1 Soil Management Site and would require a waste-ECA
- There is also the option to take liquid soil to a reuse site for dewatering before it is beneficially reused, however regardless of ownership on this site, this activity must be governed by a site-specific instrument at the reuse site to proceed

Frequently Asked Questions and Answers

5. What are the requirements for transporting sediment offsite from stormwater management ponds?

- Sediments that are removed from a stormwater management pond will have the same requirements for transportation as other excess soil and liquid soil under the excess soil regulation e.g., hauling record, vehicle maintenance
- For liquid soil, this includes:
    - Ensuring that valves that are part of the vehicle have a locking system and are locked when the vehicle contains liquid soil, and
    - The owner or operator of the vehicle must be present whenever liquid soil is being transferred into and out of the vehicle
- Regardless of if the sediments are dry or liquid, the hauling information and record requirements would apply to all movements
- These regulatory rules provide an exemption from a waste-ECA for all excess soil or liquid soil that are managed under O. Reg. 406/19

Frequently Asked Questions and Answers

6. What options are available to dewater on-site, given space limitations?

- The following options are available for on-site management related to de-watering liquid soil:

    1. Passive aeration e.g., natural aeration of stockpile
    2. Passive dewatering e.g., dewatering bags
    3. Mechanical dewatering e.g., dredging pond sediments

- Liquid soil may also be mixed with a substance or other material that is intended to dewater or solidify it, including on-site.
- If the substance or other material used contains a natural or synthetic polymer, the excavated soil is designated as waste unless the project leader for the project or the operator of the project area retains a qualified person or supervisee to complete regulated steps to ensure the suitability of the materials for reuse

For greater certainty, nothing in this section relieves a person from complying with subsection 9 (1) of the *Environmental Protection Act* or subsection 53 (1) of the *Ontario Water Resources Act* when carrying out processing by a method set out in subsection (3)

Frequently Asked Questions and Answers

7. Are all the hauling requirements applicable to smaller soil movements e.g., a few loads of soil moving from a backyard for a pool?

- Yes, information to be carried by transporters of dry or liquid soil must be carried and available at all times during transit, regardless of the volume of materials that are being moved
- This also applies to the hauling record, for both excess soil and liquid soil that is moved after January 1, 2022, hauling record requirements apply to all movements, regardless of volume

Frequently Asked Questions and Answers

8. Does the issuance of a bill of ladings satisfy the hauling requirements?

- There are many existing processes in place managing the movement of soil such as bill of ladings that may satisfy some or all of the hauling requirements of O. Reg. 406/19
- As long as the key information required to be included in section 18 of the regulation are included in the hauling record regulatory requirements would be satisfied, as there is no specific form that is required to be filled out
- The Ontario Environmental Industry Association (ONEIA) has developed and shared hauling record templates that can be considered for use by others who might be looking for tools that are available to help ensure regulatory requirements are met

Frequently Asked Questions and Answers

9. Are there any Registry requirements for haulers of excess soil and liquid soil?

- No, the Registry requirements are never the responsibility of the haulers of excess soil and liquid soil
- However, the project leader of a project area will need to enter key information into the Registry about the transport of excess soil from their site which will require liaison with the hauling company, including:

    - The name of the person who is ultimately responsible for the transportation of excess soil from the project area,
    - The mailing address, postal code, telephone number and email address of the person, and
    - If the person is a corporation, the individual to be contacted about inquiries regarding the transportation of excess soil

Frequently Asked Questions and Answers

10. How does a hauling record fit into a tracking system?

- A hauling record helps to ensure excess soil is taken to the intended receiving site
- At the project area, the tracking system determines the quality of the excess soil, identifies an appropriate reuse site and ensures that the correct soil is managed on site and loaded onto a vehicle with directions to proceed to that reuse site
- The hauling record includes information on the project area and reuse site, and that reuse site verifies that they received that soil; a copy of that record is provided back to the project area
- The tracking system would also verify the excess soil at the reuse site is finally placed for reuse, but this is not in the hauling record
- Electronic tracking systems may include their own variation of a hauling record to facilitate more complete and secure tracking of excess soil

Environment, Conservation, and Parks

Bio Break - Health Break

Ontario

Open Discussion, Additional Question and Answer Period

Additional Resources

Additional Resources

For additional information, including a variety of guidance and tools developed by internal and external partners:

- Ontario Government Excess Soil Page: ontario.ca/page/handling-excess-soil
- Ontario Provincial Standard Specification (OPSS) 180 - General Specification for the Management of Excess Materials: currently being updated by MTO
- RPRA's Excess Soil Registry: rpra.ca/excess-soil-registry
- Ontario Environmental Industry Association (ONEIA) - Best Practices and Templates:
  - Hauling Best Practices and Template: https://www.oneia.ca/excess-soils/hauling-best-practices
  - Temporary Sites Best Practices: https://www.oneia.ca/Temporary-Sites-Best-Practices
  - Qualified Persons Best Practices: https://www.oneia.ca/qp-best-practices
- Ontario Society of Professional Engineers (OSPE) - Best Practices for Aggregate Pit and Quarry Rehabilitation: https://ospe.on.ca/excess-soil-reports/
- Canadian Urban Institutes (CUI) - Excess Soil By-Law Language Tool: https://canurb.org/initiatives/excess-soil-by-law-tool/

Our Coordinates

For further contact and questions, reach out to our team:

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- **Brownfields** - Dean Therrien dean.therrien@ontario.ca

THANK YOU!

Appendices

Ontario

Appendix - Tracking System Requirements

- The tracking system must capture the total number of vehicles and total volume of excess soil that has left a project area and be able to produce reports upon request to respond to any inquiries with respect to the information of each load of excess soil to be tracked
- The tracking system must also include procedures or other methods to verify the accuracy of the information required to be tracked in respect of each load and to prevent any form of fraud or other wrongdoing in the excess soil management
- A tracking system must be capable of tracking the following information in respect of each load of excess soil that is removed from the project area:
    1. The locations of the project area where the soil was excavated and stockpiled, if applicable, and the quality of the soil associated with those locations and stockpiles.
    2. The quality of the load of excess soil being removed from the project area, unless the excess soil is to be sampled at a Class 2 soil management site or a local waste transfer facility.
    3. The quantity of the load of excess soil being removed from the project area.
    4. The location of the site at which the excess soil is to be deposited as communicated to the driver of the vehicle.
    5. The date and time the excess soil left the project area.
    6. The person from the project area responsible for overseeing the loading of the excess soil for transportation.

Appendix - Tracking System Requirements Continued

7. The name of the corporation, partnership or firm transporting the excess soil, the name of the driver of the vehicle and the number plates issued for the vehicle under the Highway Traffic Act.
8. The date and time the excess soil was received at the site where the excess soil has been deposited.
9. The contact information of the person who acknowledged receipt of the load of excess soil on behalf of the site where the excess soil was deposited.
10. Confirmation that the vehicle that deposited the excess soil and the volume of soil received at the site where the excess soil was deposited is the same as that which left the project area.

Excess Soil Webinar Series

4. Infrastructure Projects

Date and Time: November 5th, 2021

9:00am to 11:00am

Ontario

Excess Soil Webinar Series - Schedule

Topic Areas	Date and Time
1. Project Area - Source Sites	Wed October 27th, 2021 9:00am to 11:00am
2. Reuse Sites	Fri October 29th, 2021 9:00am to 11:00am
3. Transportation of Excess Soil (Dry and Liquid)	Wed November 3rd, 2021 9:00am to 11:00am
4. Infrastructure Projects	**Fri November 5th, 2021** **9:00am to 11:00am**
5. Excess Soil Registry - Regulatory Requirements	Fri November 12th, 2021 9:00am to 11:00am
6. Vac Trucks and Liquid Soil Management	Fri November 19th, 2021 9:00am to 11:00am
7. Qualified Persons (QP) and Excess Soil Planning	Wed November 24th, 2021 9:00am to 11:00am
8. Soil Depots and Storage Sites	Fri November 26th, 2021 9:00am to 11:00am

Presentation Overview

- Welcome to Webinar Series - 4 – Infrastructure Projects
- Overview of Regulatory Requirements
- Best Management Practices
- Frequently Asked Questions and Answers
- Health Break
- Question and Answer Period
- Additional Resources
- Appendices
    - Appendix A: Storage rules for dry soil
    - Appendix B: Storage rules for liquid soil

Your MECP Excess Soil Team

Some of our MECP team members include:

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Operations
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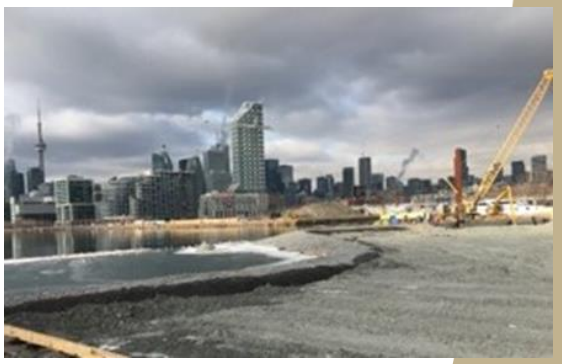
Environment, Conservation, and Parks

Overview of Regulatory Requirements Relevant to Infrastructure Projects



Toronto waterfront, Don River project filling - MECP, Jan. 2019

DISCLAIMER

This presentation is intended to be a brief summary of some of the requirements of Ontario Regulation 406/19 On-Site and Excess Soil Management (the regulation) made under the Environmental Protection Act and the Rules for Soil Management and Excess Soil Quality Standards - a document incorporated by reference by the regulation. This is for information purposes only and should not be construed as legal advice or substitute for seeking independent legal advice on any issues related to the regulation. Any person seeking to fully understand how the regulation may apply to any of the activities they are engaged in must refer to the regulation. In the event of any inconsistency between the regulation and this presentation, the regulation will always take precedence.

Ontario

Overview of Regulatory Requirements

- Regulation titled **O. Reg. 406/19: On-Site and Excess Soil Management** under the Environmental Protection Act (EPA), was finalized in December 2019, supported by:
  - Rules for Soil Management and Excess Soil Quality Standards
  - Beneficial Reuse Assessment Tool (BRAT)
  - Complementary provisions in O. Reg. 153/04 (Record of Site Condition Regulation), Reg. 347 and O. Reg. 351/12 (Waste Management Regulations)

Phased Regulatory Implementation	Timing
Reuse Rules and Waste Designation Clarification - Including excess soil reuse standards	January 1, 2021

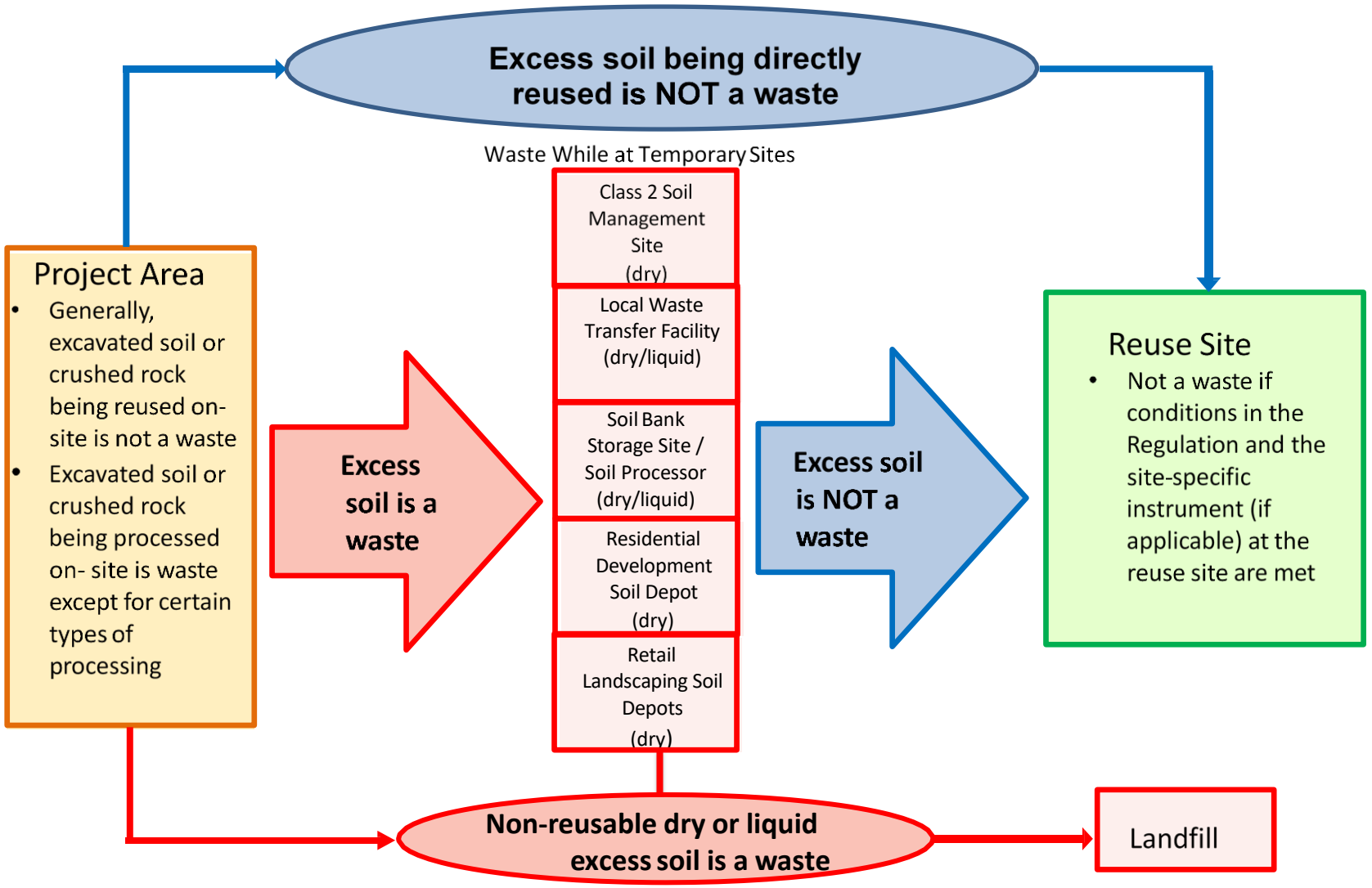
Excess Soil Reuse Planning Requirements
- For larger or riskier generating projects (some exemptions)
  - Assessment of past uses, and if required sampling and characterization
  - Destination assessment report
  - Tracking and registration
- Hauling record
- Larger reuse site registration
	January 1,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

Restriction on the deposit of clean soil at landfill sites	January 1, 2025

Rules for Excess Soil Reuse

- Excavated soil or crushed rock becomes excess soil upon leaving a project area.
- Generally, soil and rock staying in the project area is not a waste and can be reused.
- The rules for reuse of excess soil are found in sections 3, 4 and 5 of the regulation, which then refer to other key sections of the regulation and both parts of the Rules for Soil Management and Excess Soil Quality Standards.
- In order to be reused and not designated as waste, excess soil being reused at another site must meet all of these conditions:
    1. The excess soil is directly transported to a reuse site from a project area, a Class 1 soil management site or Class 2 soil management site, or local waste transfer facility
    2. The owner or operator of the reuse site has agreed in writing to deposit the excess soil at the reuse site
    3. There is a beneficial use for that excess soil and the quality and quantity of excess soil being taken to that site are consistent with the beneficial use
    4. The excess soil is dry soil and remains dry soil until it is finally placed at the reuse site, or, if it is liquid soil, a site-specific instrument authorizes the excess soil to be deposited at the reuse site
- These criteria are intended to ensure that the excess soil will be reused at the reuse site for a beneficial purpose and that the quality and quantity of the excess soil to be deposited at the reuse site for final placement are appropriate for that purpose

Waste Designation Flowchart



Ontario

Infrastructure projects excavating soil and crushed rock

On-site reuse of soil or crushed rock

- Soil and crushed rock reused within the project area from which it was excavated is not waste unless it is hazardous waste or asbestos waste.
- Soil or crushed rock that temporarily leaves the project area and is returned to the project area is similarly not a waste when back in the project area for reuse.
- For example, this could be when soil is moved for short-term off-site storage or for ease of relocation.
- Reuse of excavated soil and crushed rock on-site is encouraged to be incorporated into the design of infrastructure projects and soil management planning.

Infrastructure projects excavating soil and crushed rock

Processing at a project area

- Several types of processing of excavated soil or crushed rock can take place at the project area without the need for a waste ECA:
  - Passive aeration,
  - Passive dewatering,
  - Mechanical dewatering,
  - Mixing (if of similar quality and not for the purpose of diluting contaminants),
  - Soil turning,
  - Size-based sorting and sorting for the purpose of removing debris, or
  - Mixing with another substance that is intended to dewater or solidify the soil or crushed rock
- Additional rules outlined in the regulation would still need to be followed. For example, the use of polymers for solidification requires involvement of a QP and requires the project leader to provide appropriate documentation to the owner or operator of the reuse site
- Note that some of the types of processing that would not require a waste ECA may require other approvals, such as those under subsection 9(1) of the *EPA* or subsection 53(1) of the *OWRA*

Infrastructure projects and reuse planning requirements

Overview of reuse planning requirements

- The regulation includes reuse planning requirements for larger projects and projects with known or suspected contamination, as well as some exceptions where contaminant-related risk may be less for certain types of soil movements
- Infrastructure projects often generate large amounts of excess soil, much of which has the potential to be reused, and so some infrastructure projects will trigger reuse planning requirements
- The excess soil reuse planning requirements include:
    1. Registration of a notice in the Excess Soil Registry for the project
    2. Completion of an assessment of past uses and, if necessary, a sampling and analysis plan and a soil characterization report
    3. Completion of an excess soil destination report
    4. Application of a tracking system

Infrastructure projects and reuse planning requirements

Types of projects that are subject to reuse planning requirements

- The excess soil reuse planning requirements apply to the following types of projects unless otherwise exempt:
  - **projects generating 2000m^3 or more of excess soil** and that are in a settlement area (such as cities and towns); this trigger does not apply to projects in rural areas
  - projects for which part of the project area has a past or present use that is a gas station, garage, used for the operation of dry-cleaning equipment, or industrial use (uses associated with an "**enhanced investigation project area**" as defined in the regulation); stormwater ponds are considered an industrial use
  - projects for which the **primary purpose is to remediate contaminated lands** (note that if a new property use cannot proceed without completion of soil remediation, such as soil removal, this should be considered a primary purpose)

Infrastructure projects and reuse planning requirements

Exemptions from reuse planning requirements

- There are several exemptions from reuse planning requirements outlined in Schedule 2 of the regulation – some exemptions apply to any type of project, and some are specific to infrastructure projects
- These exemptions reflect a variety of scenarios including those where the risk is low, where responsibility for the soil is not changing and to help encourage reuse in similar projects
- Exemptions specific to infrastructure projects are:
    - Projects that are related to maintaining infrastructure in a “fit state of repair” other than excavation of excess soil from a stormwater management pond.
    - The excess soil is excavated as a part of an infrastructure project and after removal from the project area, the excess soil is being reused (finally placed) as part of an undertaking related to another infrastructure project with the same project leader or a public body as the project leader.

Infrastructure projects and reuse planning requirements

Exemptions from reuse planning requirements

- Section 14 of the regulation also sets out situations where the preparation of reports by a QP would not be required if excess soil from a sensitive use site is being reused at a similar or less sensitive use site
    - for example, new infrastructure in a greenfield where the excess soil isn't going to an agricultural or other sensitive property use
- This does not apply in respect of any portion of a project area known by the project leader to be affected by the discharge of a contaminant
- Filing a notice or tracking requirements may still apply.

Transportation requirements

- The transportation of excess soil is exempt from needing a waste ECA or registering on the Environmental Activity and Sector Registry (EASR), but regulatory rules apply to ensure it is safely and securely transported
- As of January 1, 2022, there is a requirement for a hauler to always have certain information about the excess soil available during the transportation, in the form of a **hauling record** (either physical or electronic)
- Much of the information in the hauling record will be provided by the project area, including the location of where the excess soil is to be deposited and contact information for the project area. The project leader of the infrastructure project must provide this information to the hauler, as it is never the hauler's responsibility to determine where the excess soil should be relocated
- Procedures around transportation, including the hauling record and other tracking procedures, if applicable, must be developed and understood before hauling operations start
- A copy of the hauling record must be retained on behalf of the project leader and confirmation of receipt of the excess soil at the destination site must be obtained by the hauler and a copy of the final record must be retained by all parties for two years

Storage of excess soil

- To help prevent adverse impacts on the environment or neighbouring properties, the regulation includes rules related to storage of soil or crushed rock that must be followed at most sites. These rules include pile size limits (2,500m^3) and setbacks from property boundaries (10m) and waterbodies (30m). See Appendix A and B for more details
- Of relevance to infrastructure projects, waterbodies do not include stormwater ponds, and there are exemptions from property boundary setbacks for:
  - storage of smaller amounts (500 m^3 or less at any one time on the project area)
  - short term storage (for a period of less than 1 week)
  - if the storage location has a physical barrier (for example, concrete wall); or
  - the storage is taking place in a public road right-of-way

Storage and processing sites

- Various types of storage and processing sites, other than the project area, are recognized by the regulation and may be available to project leaders to facilitate excess soil management for reuse.
- Some of these sites enable temporary storage and limited processing and do not require an ECA under certain conditions.
- Other types of sites are more permanent and take responsibility for the excess soil, but typically require an ECA.
- These interim sites include:
    - Class 1 soil management sites
    - Class 2 soil management sites
    - Local waste transfer facilities

Storage and processing sites

Class 1 soil management sites:

- These are waste disposal sites, which include soil banks and soil processing sites that take responsibility for excess soil deposited at that site, potentially from many project areas (a project leader may consider these a final destination)
- Generally, these sites require a waste ECA, and an infrastructure project leader or contractor may consider establishing one to facilitate excess soil storage, processing and reuse across many projects and undertakings

Class 2 soil management sites:

- For temporary storage and limited processing of dry soil by the project leader before soil can proceed to a known reuse site. Sampling of excess soil can also be conducted at a Class 2 site if it is impracticable to do so at the project area
- The site must be operated by the project leader and owned by the project leader or a public body and no ECA is required if operated in accordance with limits and rules
    - e.g. notification to the Ministry, no more than 10,000 m3 stored at a time, limited storage time period of two years unless extended by the Ministry
- A project is not considered complete until excess soil is removed from these sites and taken to a final destination

Storage and processing sites

Local waste transfer facilities

- These sites are recognized under Regulation 347 as a storage location for an organization that is **not primarily a waste management operation**
- They receive, bulk, temporarily store and transfer waste they generated through **field operations** until it is characterized and disposed of or reused.
    - Field operations include construction, maintenance of a highway, environmental testing, etc.
- A local waste transfer facility means a site:
    - at which waste from field operations is received, bulked, temporarily stored and transferred
    - that is owned or controlled by the person who undertakes the field operations or by a person on whose behalf those field operations are undertaken
    - at which no waste is received other than waste from field operations, and
    - that is used primarily for functions other than waste management (e.g., a site used primarily for equipment storage)

Storage and processing sites

Local waste transfer facilities - continued

- Local waste transfer facilities are exempt from section 27, 40 and 41 of the *Environmental Protection Act* (requirement for waste ECAs) under Regulation 347, if the criteria for exemption are met
- Written notice that identifies the facility and sets out the facility's location and the quantities and types of wastes that are at or are anticipated to be at the facility may be required to be given to the Director one month before the facility is established
- Other applicable requirements from Regulation 347 related to local waste transfer facilities may also apply, such as:
  - availability of fire-fighting equipment and spill clean-up and containment equipment
  - access to the facility controlled by gates, fencing, attendants or other security measures

Storage and processing sites

Local waste transfer facilities - continued

- These sites may be applicable to some excess soil management operations, and there are also some additional requirements and flexibilities under the excess soil regulation that apply to local waste transfer facilities
- Excavation of soil may often be associated with construction operations, however operations focused on removal and disposal of excess soil are more likely waste management operations
- Sampling of excess soil can be conducted at these sites, if it is impracticable to do so at the project area
- The excess soil regulation enables specified types of processing at a local waste transfer facility if the organization is a public body or another infrastructure project leader, and no waste ECA is required if operated in accordance with limits and rules. An example of this type of facility is a public works yard for a public body
- Excess soil storage rules specified in the Rules document apply at these sites, including pile size limits, volume limits and setbacks (see Appendix A and B).
- A project is not complete until excess soil is removed from these sites and taken to a final destination

Infrastructure undertakings reusing excess soil

- Any need for excess soil recognized in the planning and design documents for an infrastructure undertaking would be a beneficial purpose, including the use of excess soil for ramps, back-fill, levelling or filling for planned development, granular material or planned berms. The volume of excess soil that may be received is that volume which is necessary for the beneficial purpose.
- The quality of excess soil that may be received must be appropriate for that site and either meets standards as described in a site-specific instrument or is in accordance with the standards and rules set out in the regulation
- The regulation also provides a framework for the development of site-specific excess soil quality standards applicable to a reuse site, through the use of the Beneficial Reuse Assessment Tool (BRAT) or use of alternative Risk Assessment (RA) approaches. Some infrastructure reuse sites may find developing site-specific excess soil quality standards desirable to allow for greater flexibility in the type of excess soil that can be deposited at their reuse site, including from other infrastructure projects. The development of site-specific standards must be completed by a QP
- The storage time limit of two years that applies to other reuse sites does not apply to storage for beneficial reuse in an infrastructure undertaking

Infrastructure undertakings reusing excess soil

Exemptions from larger reuse site regulatory requirements:

- Sites receiving larger amounts of excess soil (10,000 m^3 or more) for reuse in an undertaking are typically subject to requirements to register a notice to the Registry and establish procedures to track and inspect excess soil being received
- While these are best practices for any large reuse site, these regulatory requirements **do not apply to infrastructure undertakings**
- This is in part a recognition that public bodies often lead infrastructure projects and should have defined procedures for fill management
- This is also intended to help encourage more reuse in infrastructure undertakings
- This is **not** an exemption from the excess soil quality standards or other criteria to determine that the excess soil is not a waste

Key Definitions

Excess Soil: soil, crushed rock, or soil mixed with rock or crushed rock, that has been excavated as part of a project and removed from the project area for the project

Liquid soil: soil that has a slump of more than 150 millimetres using the Test Method for the Determination of "Liquid Waste" (slump test) set out in Schedule 9 to Regulation 347

Project: means any project that involves the excavation of soil and includes,

- any form of development or site alteration,
- the construction, reconstruction, erecting or placing of a building or structure of any kind,
- the establishment, replacement, alteration or extension of infrastructure, or
- any removal of liquid soil or sediment from a surface water body;

Reuse site: a site at which excess soil is used for a beneficial purpose and does not include a waste disposal site

Key Definitions

Infrastructure: all physical structures, facilities and corridors relating to:

(a) public highways
(b) transit lines and railways
(c) gas and oil pipelines
(d) sewage collection systems and water distribution systems
(e) stormwater management systems
(f) electricity transmission and distribution systems
(g) telecommunications lines and facilities, including broadcasting towers
(h) bridges, interchanges, stations and other structures, above and below ground, that are required for the construction, operation or use of the items listed in clauses (a) to (g), or
(i) rights of way required in respect of existing or proposed infrastructure listed in clauses (a) to (h)

Best Management Practices




Ontario

Best Practices

Maximize on-site reuse

- Project leaders should look for opportunities to minimize the amount of soil or crushed rock to be excavated. When it does need to be excavated, the ministry encourages the reuse of the excavated soil or crushed rock at the site where it is excavated to limit the amount of excess soil that must be relocated
- On-site or local reuse will reduce relocation and disposal costs for projects, as well as reduce greenhouse gas emissions from vehicles and reduce road wear and safety
- Soil or crushed rock reused on-site is not considered “excess soil” and is not designated as waste. It would therefore not trigger the regulatory rules related to where and how excess soil can be reused (such as excess soil quality standards or consent from reuse site owners, or the excess soil planning requirements, such as filing a notice to the Registry, assessment of past uses, tracking, etc.)

Best Practices - Continued

Planning for reuse

- It is recommended that infrastructure companies and public bodies that are excavating soil for infrastructure projects develop procedures to identify opportunities to maximize local reuse of excess soil, where appropriate. This includes coordinating reuse between project areas that may be under one contract or across contracts from the same project leader. It also includes coordination between major infrastructure organizations in the same geographic region
- Owners or developers of sites that require soil for specific uses, such as the construction of berms or new roads, are encouraged to consider importing excess soil from local neighbouring project areas. At the same time, project leaders generating excess soil should be seeking to find appropriate local beneficial reuses of the soil which cannot be reused on-site
- Undertakings that may be seeking excess soil are encouraged to register their projects on the Excess Soil Registry as a reuse site, whether it is required or not, to help raise awareness of undertakings needing soil

Best Practices - Continued

Excess Soil Management Plan

- The project leader of a project generating excess soil should consider retaining a QP to develop an excess soil management plan to integrate all regulatory requirements, and to ensure soil is properly managed and tracked. It could include:
  - All reports completed related to the excess soil management activities: assessment of past uses report (or phase one ESA), sampling and analysis plan, excess soil characterization
  - A site plan that identifies all areas to be excavated, with the estimated volume and soil type and quality of each area, as well as areas for reuse, storage and processing
  - Procedures for on-site excavated soil or crushed rock management, including any intended on-site processing and segregation of excavated soil or crushed rock of various qualities
  - The estimated volume of excess soil to be taken off-site from the project area
  - A list of potential receiving sites for various soil qualities, including an excess soil destination assessment report, if completed, and procedures for tracking of excess soil to reuse sites or other destinations
  - Identification of relevant site-specific instruments or regulatory requirements that may apply to the project area and soil-related activities, such as the intent to file a record of site condition
  - Requirements and procedures respecting cultural heritage and natural heritage assessments and associated soil management considerations

Best Practices - Continued

- **Fill management plans**
  - Reuse sites should consider preparing a fill management plan, which assesses site conditions, determines appropriate fill quality for the site, and details fill management procedures for the planned undertaking.
  - A QP could be hired to complete and implement such a plan. Such plans may be required through municipal by-laws.
  - The fill management plan may be a useful tool to integrate all regulatory requirements, and may include:
    - Copies of any documentations related to municipal or conservation authority licenses/permits
    - Identification of the appropriate types/quality of soil to be received at the site
    - Site plans and grading plans
    - Protocols for incoming excess soil (inspections, contingency measures, recordkeeping)
    - Audit sampling protocols
    - Soil placement and segregation protocol to identify where excess soil has been placed at the reuse site, for assessment if required

Environment, Conservation, and Parks

Frequently Asked Questions and Answers

Ontario

Frequently Asked Questions and Answers

What are the exemptions for moving excess soil from one infrastructure project to another?

- Movements of excess soil from one infrastructure project to an infrastructure undertaking for reuse are exempt from the planning requirements (such as registration and assessments), if the reuse site is owned by a public body or the project leader of the site where the excess soil originated
- Despite this exemption, the excess soil quality standards still apply and the excess soil to be relocated to the reuse site must meet the applicable excess soil quality standards and related rules at the reuse site
- For example, excess soil can be moved between two road projects with the same municipal project leader if the excess soil excavated from the first road project is of appropriate quality to be accepted for reuse at the second road project, but mandatory soil testing does not apply.

Frequently Asked Questions and Answers

What constitutes maintenance in a fit state of repair for an infrastructure project?

- Maintaining infrastructure in a fit state of repair is an exemption from the excess soil planning requirements under Schedule 2 to the regulation; this exemption does not, however, apply to excess soil excavated from a stormwater management pond for the purpose of maintaining the facility
- In general, maintaining in a fit state of repair would include cleaning out infrastructure, repairing infrastructure or replacing existing infrastructure with similar infrastructure; it would not result in increased capacity or a different alignment
- In scope examples may include culvert replacement, roadbed repair or pipe replacement, including temporary infrastructure that is part of the maintenance process, such as a by-pass pipe or a minor road diversion or replacing a pipe by laying a new parallel pipe to allow the old one to stay in service until the new one is finished
- Out of scope examples include new construction such as building a road, or a transit right of way, digging a tunnel for a new subway or digging a new sewage/watermain, tunnel, re-aligning (vertically or horizontally), twinning, or adding capacity or widening of a pipe or road

Frequently Asked Questions and Answers

What are the exemptions for existing contracts and reports completed for projects?

- The regulation exempts projects from filing a notice in the Registry and the associated reuse planning requirements (for example, assessment of past uses, sampling and analysis, destination report and tracking) if the soil management contracts were **entered into** before January 1, 2022. If this exemption applies, those requirements would not be triggered until January 1, 2026.
- Other regulatory rules would continue to apply, including criteria to avoid the waste designation when excess soil is reused (for example, the excess soil quality standards and consent from the reuse site owner).
- Assessments of past use, sampling plans and characterization reports, or similar reports such as phase one or two site assessments, completed for a project before January 1, 2022, are also recognized as reports that can support excess soil reuse under this regulation. This means that these studies do not have to be repeated for a project continuing based on those studies.
- Note that if a different project is being commenced after that date, these assessments, plans and reports may need to be updated to meet all the regulatory requirements.

Frequently Asked Questions and Answers

What requirements apply to the reuse of granular aggregate?

- Reuse of aggregate from a project area (not including a pit or quarry) is generally encouraged. As with any soil or crushed rock, if it is reused in the project area it is not waste and not subject to the excess soil reuse criteria. If removed from a project area it is considered excess soil and subject to the excess soil reuse criteria
- The exemption from the reuse planning requirements (such as registration, assessments, destination reports and tracking) for excess soil excavated as part of an infrastructure project and will be reused as part of another infrastructure undertaking at a site owned by the project leader or a public body applies to granular aggregate. The exemption for maintaining infrastructure in a fit state of repair may also apply. These would enable an infrastructure project leader (such as a public body) to plan to reuse aggregate across projects without these additional requirements
- With regard to granular aggregate that is proceeding to a granular recycling facility, these would be considered a final destination from the perspective of a project leader as they take control of that material once deposited there

Frequently Asked Questions and Answers

What are the options for infrastructure contractors storing excess soil?

- Public bodies or infrastructure companies that are project leaders can identify local waste transfer facilities or Class 2 soil management sites to which contractors could temporarily relocate excess soil from that project leader's projects
- Contractors that are not primarily in the business of waste management can make use of the field operations exemption outlined in Regulation 347 for local waste transfer facilities without needing a waste ECA, if all the applicable rules under Regulation 347 as well as the excess soil regulation are followed (e.g. storage rules, security/barriers, etc.)
- All other contractors offering the service of storing or processing excess soil at a property they own would require waste approval to operate such a facility, in addition to any other approvals required based on the nature of the service offered

Frequently Asked Questions and Answers

What are the requirements for using the BRAT's six site use characteristics and can they be used for infrastructure projects?

- BRAT provides the ability to quickly and easily generate site-specific standards using the same model that is used to derive the tables of generic excess soil quality standards
- There are six site use characteristics included in the BRAT that a QP may utilize:
    - Shallow soil cap barrier
    - Fill/hard cap barrier
    - Building with storage garage
    - Building prohibition
    - Building with no first store residential, parkland or institutional use
    - Building with minimum first storey ceiling height requirement
- Use of these six site use characteristics to adjust applicable exposure pathways should be used only if they reflect existing or planned permissible uses, and must be approved and documented in a site-specific instrument; however, this requirement does not apply to final placement of soil for an infrastructure undertaking

Frequently Asked Questions and Answers

Can one hauling record have multiple project areas listed on it (for example, with hydrovac trucks doing daylighting)?

- Multiple project areas can be listed in one hauling record if all the key regulatory requirements are addressed in the hauling record.
- This includes the location of each project area at which excess soil was loaded and the location where the excess soil is to be deposited, among other key details on the soil movement (for example, date, time and quantity of excess soil loaded at each location).
- After the excess soil is deposited and a new load is started, a new hauling record should also be started.

Frequently Asked Questions and Answers

As a project leader for an infrastructure project, who can file a notice in the Registry on my behalf?

- In respect of infrastructure projects, often a municipality or other public body **ultimately responsible** for that infrastructure would be a project leader.
- The project leader is responsible for ensuring that a notice for the project is filed, if required, and must always complete the required declarations that are a component of the notice being filed
- However, the project leader can designate an authorized person to commence, update and file a notice on their behalf, and pay associated fees. The declarations must still be completed by the project leader, and the authorized person may facilitate receiving that completed declaration form
- Within an organization that is the project leader, a person from the organization with signing authority may complete all information, pay fees, and sign any declarations in the Registry. Alternatively, one person from the organization or contracted by the organization may fill in information into a notice and submit fees, while another person with signing authority from the organization would complete the declarations.

Frequently Asked Questions and Answers

Will there be templates available for the type of reports (e.g. assessment of past uses) that QPs have to complete, as there is variability amongst these reports?

- The ministry does not intend on providing report templates for QPs to meet the requirements of the excess soil regulation. The requirements under the regulation and the Rules document outline how the reports should be prepared, along with giving flexibility for the QP to use their judgement to decide which requirements are not adhered to, and to provide a rationale when that is the case

Can a municipality's environmental engineer(s) act as a QP for the municipality's projects or would it be deemed a conflict of interest?

- The municipality's engineers can act as QPs, without it being deemed a conflict of interest.
- Subsection 23(3) of the excess soil regulation states that a qualified person may act in respect of a project or reuse site in which his or her employer holds a direct or indirect interest.

Environment, Conservation, and Parks

Bio Break - Health Break

Ontario

Open Discussion, Question and Answer Period

Additional Resources and Our Coordinates

Additional Resources

For additional information, including a variety of guidance and tools developed by internal and external partners:

- Ontario Government Excess Soil Page: ontario.ca/page/handling-excess-soil
- Ontario Provincial Standard Specification (OPSS) 180 - General Specification for the Management of Excess Materials: currently being updated by MTO
- RPRA's Excess Soil Registry: rpra.ca/excess-soil-registry
- Ontario Environmental Industry Association (ONEIA) - Best Practices and Templates:
  - Hauling Best Practices and Template: https://www.oneia.ca/excess-soils/hauling-best-practices
  - Temporary Sites Best Practices: https://www.oneia.ca/Temporary-Sites-Best-Practices
  - Qualified Persons Best Practices: https://www.oneia.ca/qp-best-practices
- Ontario Society of Professional Engineers (OSPE) - Best Practices for Aggregate Pit and Quarry Rehabilitation: https://ospe.on.ca/excess-soil-reports/
- Canadian Urban Institutes (CUI) - Excess Soil By-Law Language Tool: https://canurb.org/initiatives/excess-soil-by-law-tool/
- OSSGA document on Excess Soil Best Management Practices for Pits/Quarries: https://www.ossga.com/rehabilitation_and_excess_soil/

Our Coordinates

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Appendices

Ontario

Appendix A - Storage Rules for Dry Soil

The following applies to **dry soil** stored at any site, including a local waste transfer facility:

- Soil to be stored and managed to prevent any adverse effects associated with its receiving, processing, storage and movement - to manage noise, dust, mud tracking, leaching, run-off and erosion as well as any potential air or odour impacts
- Soil must be stored in stockpiles and the maximum size of each stockpile shall not exceed 2,500m³
- Any soil that is sampled and analysed must be kept segregated from other soil and soil of different qualities intended for different beneficial uses
- The soil must not be stored within 30 metres of a waterbody or within 10 metres of the property line (boundary), unless any of the following apply:
  - 500m³ or less of excess soil will be stored at any one time at the project area
  - Excess soil storage at the project area is for one week or less
  - The storage location has a physical barrier (e.g., concrete wall) between the excess soil and the property boundary
  - The storage is taking place in a public road right-of-way
- Soil shall be stored in a manner that prevents any contaminants from the soil from leaching into the ground water

Appendix B - Storage Rules for Liquid Soil

The following applies to **liquid soil** stored at a project area or a local waste transfer facility:

- All storage and processing locations of liquid soil, processed or dewatered or solidified soil and process residues shall be readily accessible for inspection by a provincial officer.
- No more than 10,000 cubic metres of liquid soil, processed or dewatered or solidified soil and process residues may be present at the site at any one time.
- All liquid soil, processed or dewatered or solidified soil and process residues that are liquid shall be stored in a leakproof container on an impermeable surface in a manner sufficient to contain and prevent the material from escaping into the natural environment

Ministry of the Environment, Conservation and Parks

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Ontario

December 14, 2021

Kealy Dedman P.Eng., MPA
Regional Public Works Commissioners of Ontario (RPWCO) Chair

Dear Ms. Dedman:

Thank you for your letter of October 14, 2021 sent to Karen Moore, in relation to the Regional Public Works Commissioners of Ontario's request to delay the implementation of provisions of O. Reg. 406/19, Onsite and Excess Soil Management (the Regulation) under the *Environmental Protection Act* (EPA), that would come into effect on January 1, 2022. In your letter, you have noted concerns related to guidance documents and fact sheets that have not yet been released and that members of the regulated community did not receive training on the use of the Excess Soil Registry, making it difficult for users to implement the upcoming requirements in their contracts.

While we will not be amending the regulation to extend the upcoming implementation date by one year, from January 1, 2022, to January 1, 2023, I can assure you that the ministry will continue to work closely with RPWCO and its members to support implementation of the regulation.

As you may be aware, a year ago in December 2020, the province made regulatory amendments extending exemptions from reuse planning requirements (e.g., registration and minimal sampling requirements) for contracts (e.g., infrastructure contracts), if they were in place before January 1, 2021, to be in place before January 1, 2022. This provided municipalities an extra year to modify contracts as needed to reflect new regulated requirements.

With regard to the Excess Soil Registry, you may be aware that the Resource Productivity and Regulatory Authority (RPRA) was directed to develop and implement the Registry and that direction included that the Excess Soil Registry must be available a month in advance of the effective date of the related regulatory provisions. Consistent with that direction, RPRA released the Registry on schedule on December 1, 2021, for the regulated community to begin filing notices, ahead of January 1, 2022, in effect date.

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To support the launch:

- User testing, with some municipal representatives, has been completed
- Training related to the Registry is being carried out by RPRA; recordings are being made available of those sessions
- RPRA has developed training materials such as user guide(s), and webinars for the regulated community
- RPRA will continue to support registry users now that the Registry is live, including through registry support officers to help through the registration process
- See RPRA's website for information on training and materials: https://rpra.ca/excess-soil-registry/

Since the Regulation was finalized in 2019, the ministry has engaged with municipalities, organizations and the regulated community to facilitate implementation of the regulation, such as:

- undertaking a series of eight webinars for stakeholders on excess soil management and making materials from those meetings available to stakeholders
- supporting the development of external industry-led guidance and best management practices for excess soil management on several topics
- presenting at numerous conferences and meetings
- responding to questions and one-on-one on-line meetings
- developing fact sheets that are currently being rolled out

Education materials and links to other helpful sites are being made available on MECP's Handling Excess Soil website. The ministry will continue to provide education, guidance and support to the regulated community beyond January 2022 to support successful implementation.

Regarding ministry compliance actions, the ministry will continue to promote regulatory awareness through an emphasis on voluntary abatement options and education to achieve compliance with the Excess Soil Regulation. The use of compliance tools for contraventions of the Regulation would be guided by the ministry's compliance policy. The compliance policy, specifically the Informed Judgement Matrix, uses an environmental and health-based risk approach that considers other factors such as compliance history the assessment of incidents and selection of tools for ensuring compliance with the legislation, regulations and standards administered by the ministry.

As noted above, the Compliance Matrix will prioritize education and awareness to support the sector's understanding of their responsibilities. Be assured, the Ministry recognizes the timelines underpinning the transition and will continue to primarily focus on ensuring the sector is informed about the regulation and its implications in the months ahead.

Excess soil related activities have a high degree of variability with respect to environmental risk factors. Ministry front-line staff will continue to use risk ranking tools as well as their knowledge of local conditions and judgement, in dealing with excess soil related issues.

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Finally, I understand staff recently met with RPWCO members and have committed to regular implementation meetings in December 2021 and beyond as needed to continue providing support for implementation.

I hope you find this information helpful. Thank you again for sharing your concerns.

Sincerely,

Robyn Kurtes
A/ Assistant Deputy Minister
Environmental Policy Division

cc. Susan Jacob
Mika Raisanen
Kayla Dixon
Michael D'Andrea
Nicola Crawhall
Chris Lompart