Ontario's Excess Soil Management Policy Framework and Proposed Regulation

Excess soil is soil that has been dug up, typically during construction activities, which will not be reused at the development site and must be moved to another location.

Ontario has been working to develop new policies to ensure relocation of excess soil is undertaken properly and sustainably. To guide policy development, Ontario released an Excess Soil Management Policy Framework (Framework) in December 2016.

The Framework is guided by two key goals:

1. **Protect human health and the environment from inappropriate relocation of excess soil and,**
2. **Enhance opportunities for the beneficial reuse of excess soil and reduce greenhouse gas emissions associated with transporting excess soil.**

Ontario is now consulting on a proposed regulation that would help to implement the Framework.

Why Is Proper Excess Soil Management Important?

An estimated 25 million cubic metres of excess soil is generated in Ontario each year, with each load traveling an average of 65 km for disposal or reuse, according to a recent study by the Residential and Civil Construction Alliance of Ontario (RCCAO, 2017). At the same time, the population of large urban centres continues to increase - the Greater Golden Horseshoe is one of the fastest growing regions in North America, forecasted to grow to 13.5 million people by 2041. New development continues to generate increasingly large amounts of excess soil requiring proper management.

Excess soil continues to receive public attention due to uncertainty over the quality of soil being relocated and whether soil is being beneficially reused. In particular, illegal

dumping, oversight of commercial fill operations and other activities related to excess soil generation and movement have caused increasing public concern.

As urban areas intensify, opportunities to reuse soil at a development site can be limited, which results in excess soil needing to be moved elsewhere. Excess soil may contain contaminants which may affect whether, and where, it should be reused. Improper management and relocation of excess soil can negatively affect human health, ground or surface water quality, and can impact natural areas such as wetlands and agricultural lands. It may also be associated with local issues such as noise, dust, truck traffic, road damage, erosion, poor drainage and other social, health and environmental concerns. This is a particular concern for property owners receiving excess soil, who could unintentionally receive excess soil containing contaminants at concentrations that are inappropriate for that site.

Due to the often long hauling distances for reuse or disposal, the movement of excess soil also contributes a significant amount of greenhouse gas emissions. Local reuse and proper management and tracking of excess soil can significantly reduce greenhouse gas emissions, and costs associated with transportation and landfilling.

New Regulatory Proposal under the Environmental Protection Act (EPA)

The Ministry is now seeking feedback on proposed regulations related to excess soil management in Ontario.

This proposal generally includes the same elements as a previously posted plain-language regulatory proposal, with some revisions to respond to input received. It is also now drafted in legal wording for review and input. The proposed soil quality standards and other details are in a separate document that would be referenced by the regulation.

This regulatory package is intended to achieve the following key outcomes:

Photo Credit: MOECC, 2018

This proposed regulatory framework includes the following key elements to help ensure soil is managed properly and sustainably:

- **Excess soil management plans required for movement of larger amounts of excess soil and soil excavated from higher risk sites, including an assessment of soil quality**
- **Tracking of excess soil to appropriate reuse sites**
- **New standards to clarify where excess soil can be reused**
- **New sampling direction for generators of excess soil**
- **Amendments to support brownfields redevelopment**

Intended Outcomes

1. **<u>Clarifying Where Excess Soil Can Be Reused</u>**

The proposed regulation would clarify where excess soil can be reused based on the level of contaminants in the soil. This proposed regulation would achieve this through new soil quality standards and reuse rules and other factors based on various types of property uses (e.g., agricultural, residential or industrial use). Generators of excess soil

are encouraged to become familiar with the range of options provided for excess soil reuse as this may provide flexibility to reuse soil on-site or locally.

The proposed regulation would clarify when excess soil is considered waste. Generally speaking, if excess soil is being reused for a beneficial purpose and the quality of the soil is appropriate for the reuse site, it would not be considered waste. The placement of excess soil at a reuse site may be governed by a site-specific instrument detailing the appropriate quality and/or quantity of soil for that site, or it may be subject to the new excess soil standards and rules set out in a document proposed to be referenced in the regulation. If excess soil is being deposited at a site that is used primarily for depositing excess soil, that soil would be considered a waste and associated Environmental Compliance Approvals (ECAs) would be required.

This clarity on when excess soil is waste would improve the Ministry's ability to take action when such soil is inappropriately relocated. It would also clarify when the management of excess soil is subject to key requirements relating to waste under the Environmental Protection Act. ECAs would continue to be required for soil processing facilities and for excess soil banks. Other activities, such as hauling of excess soil, would not be subject to ECAs if certain requirements in the proposed regulation are met.

There are many social, economic and environmental benefits to be achieved by local reuse of excess soil, such as cost savings and reduced greenhouse gas emissions from reduced hauling distances. It is anticipated that surrounding communities would also see the benefits of local beneficial reuse of excess soil through reduced dust, traffic and road damage in their communities, particularly those communities along hauling routes.

2. **Enhancing Responsibility and Accountability of Excess Soil Generators**

The proposed regulation would clarify the responsibility of the generator of excess soil to ensure their excess soil is relocated appropriately. To ensure proper oversight and quality assurance, it is proposed that qualified persons be required to prepare or supervise the preparation of the excess soil management plan.

Excess soil management plans would be required for the movement of larger amounts of excess soil and projects where the soil is more likely to contain contaminants.

A plan would be required to be developed and implemented before soil leaves the project area, if more than 2,000 m^3 of excess soil (about 200 truckloads) is to be removed from a site in a settlement area, or if the soil is to be excavated from an area where industrial or certain commercial uses have taken place. The excess soil

management plan would include basic information to facilitate appropriate management and movement of excess soil, including key tracking and record keeping requirements as well as information on the quality and quantity of excess soil, how it is proposed to be managed, and sites to which it will be relocated.

The cost of managing excess soil can be a significant portion of the overall cost associated with a particular development or infrastructure project. Greater reuse of excess soil onsite, or locally, can significantly reduce project costs. Several large scale projects generating excess soil have already adopted excess soil best management practices similar to those contained in this proposed regulation, and have reported significant economic benefit. For example, a recent industry study looking at 24 Ontario projects ranging from under $1 million to over $50 million showed an average cost savings of 8 to 13% when soil was reused with best practices (OSPE et al, 2016).

3. Improving Transparency and Public Accountability

A key objective of the proposed regulation is to ensure that excess soil is tracked from the time it leaves the project area to the final reuse site where it is deposited and beneficially reused. The proposed regulation would require generators of excess soil to register key information related to soil movements on a public online registry. This registry would promote transparency and accountability for generators of excess soil by requiring them to provide information about the project area and to identify sites to which excess soil is moving. The registry would also contain information about the volume and general quality of the excess soil moved.

This registry would provide a valuable source of information on excess soil movements in the province to support future compliance and policy development. For example, this information would help to ensure that the soil can be traced back to a generator if concerns are raised about whether the soil has been taken to an appropriate reuse site.

To help ensure traceability of soil movements, certain records would be maintained by various parties involved in excess soil movements. Any load of excess soil removed from a project area would be required to be accompanied by a hauling record containing specified information, including where it originated and where it is intended to be deposited.

4. Supporting Brownfields Redevelopment

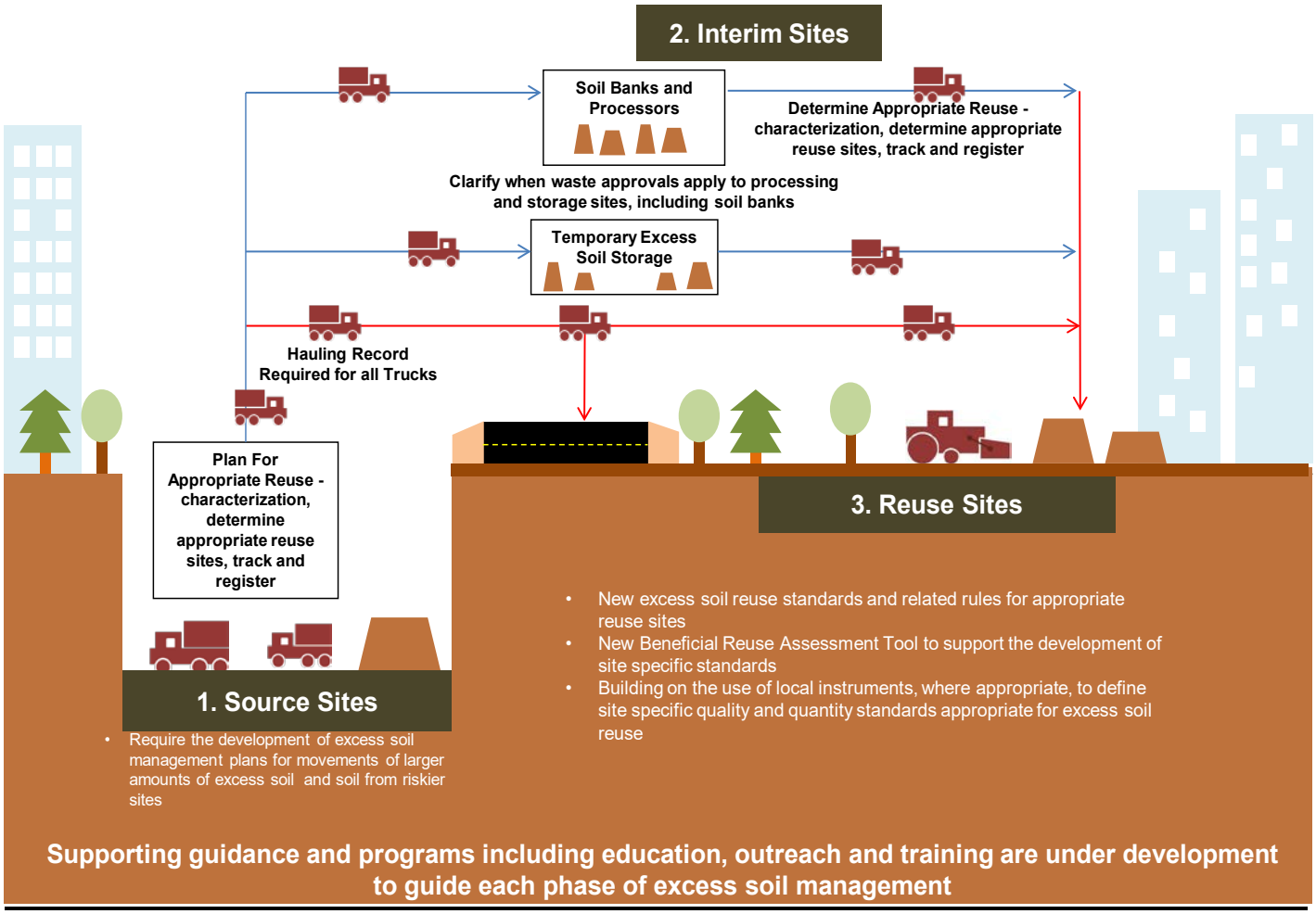
Through a broader initiative to explore opportunities to resolve service delivery challenges, amendments to the Record of Site Condition Regulation (Ontario Regulation 153/04) were identified that would provide clarity and reduce burden, while maintaining environmental and human health protection. These proposed amendments

would encourage more brownfields redevelopment with related social, economic and environmental benefits.

These proposed amendments would help to resolve delineation challenges that are sometimes experienced at properties going through the Risk Assessment process, remove Record of Site Condition triggers for certain undertakings considered low risk and provide flexibility on meeting standards for contaminants, where exceedances are caused by use of a substance for safety under conditions of snow and ice, discharges of treated drinking water, and the presence of fill that matches local background levels. These amendments would also align the proposed excess soil regulation with existing rules about soil brought to record of site condition sites.

These proposed regulatory amendments are intended to create more opportunities for brownfields redevelopment. This supports intensification of brownfields redevelopment, use of existing infrastructure, and low-carbon modes of transportation to address climate change.

Excess Soil Management Framework



- New excess soil reuse standards and related rules for appropriate reuse sites
- New Beneficial Reuse Assessment Tool to support the development of site specific standards
- Building on the use of local instruments, where appropriate, to define site specific quality and quantity standards appropriate for excess soil reuse

- Require the development of excess soil management plans for movements of larger amounts of excess soil and soil from riskier sites

Supporting guidance and programs including education, outreach and training are under development to guide each phase of excess soil management

Overview of Recent Policy Efforts

The Ministry of the Environment and Climate Change (the Ministry) and other ministries recognize the importance of sustainable excess soil management to protect human health and the environment while promoting beneficial reuse of excess soil. Through its engagement efforts the province consistently heard that the current system for oversight and management of excess soil requires stronger direction and clear and enforceable rules. It was also recognized that there is a need to clearly identify roles and responsibilities as excess soil is generated and moved from a project area to a final reuse site. The below diagram outlines the journey the province has undertaken on excess soil since 2014; the star marks the current stage of efforts.

Photo Credit: MOECC, 2018

In 2014, the Ministry released a guide titled **"Management of Excess soil – A Guide for Best Management Practices"**. These best management practices set out the province's expectations for sites managing excess soil and help to encourage the beneficial reuse of excess soil in a manner that promotes sustainability and the protection of the environment.

In 2014, the Ministry, with support from partner ministries, also undertook a review under the Environmental Bill of Rights to assess the need for additional policy to manage excess soil. The review found a need to clarify the regulatory framework for the management of excess soil, including clarification of the responsibility of proponents that generate excess soil. The review also identified the need for clear requirements

governing the sampling and analysis of excess soil, the tracking of excess soil to a reuse site, and for soil quality standards that apply to reuse sites.

Based on the findings of the review, the Ministry, released an **Excess Soil Management Policy Framework** (Framework) which was finalized in December 2016.

The Framework is guided by key principles, and includes 21 regulatory and non-regulatory actions, including a proposed new excess soil regulation under the Environmental Protection Act.

In addition to the proposed regulation, recent effects have also resulted in completion of several Framework actions. These include:

- Establishing an Excess soil Engagement Group and 3 Sub Working Groups
- Release of a fact sheet on excess soil brought to agricultural properties
- Release of a municipal bylaw language tool
- Legislative amendments to the Municipal Act to enable municipal site alteration bylaws to apply in areas regulated by conservation authorities
- Development of excess soil policies in various plans in the Greater Golden Horseshoe
- Ongoing support for pilot projects identifying opportunities for reuse
- Ongoing work with partners on market-based tools and programs to encourage reuse of excess soil, including a registry of excess soil movements

In April 2017, the Ministry posted a proposed plain-language regulation on the Environmental Registry which included a new proposed regulation, amendments to existing regulations and related sampling and reuse standards.

In April 2018, based on the input received through the previous postings and through all engagement sessions with stakeholders and Indigenous communities to date, a proposed revised regulation, complementary amendments to existing regulations and related sampling and reuse standards was posted for further input.

Forward: Continued Collaboration

The Ministry and partner ministries are committed to continuing to move ahead with completing key commitments under the Framework, including finalizing this regulatory proposal. To assist in delivery of the Framework and related regulatory proposal, the Ministry will continue to actively meet with stakeholders and Indigenous communities to support finalization of this proposal and will continue discussion on supporting guidance and program needs.

It is also expected that this proposed regulation would stimulate innovation and new technologies with respect to soil testing, treatment and optimization solutions. A number of pilot projects and new technology testing is underway relating to storm water pond sediment reuse, electronic soil transport tracking systems, soil banks, and solidification agents for liquid soil. Such pilots help to support both delivery of the Framework and would also help to show how the proposed regulation and related best practices for excess soil management can be implemented.

The Ministry will also continue to actively engage with our Excess Soil Engagement Group as well as the three sub working groups. The Market Sub Working Group will now be named the Governance and Programs Sub Working Group. The Ministry will continue to work closely with these teams to discuss priority programs and governance approaches and to develop priority education, outreach and training to support implementation.