

PROPOSED  
**EXCESS SOIL** MANAGEMENT  
POLICY FRAMEWORK



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# 1.0 INTRODUCTION

## 1.1 CONTEXT

*Excess soil* is a result of intensive land development across the province. While cities continue to grow, proper *excess soil management* is necessary to protect human health and the environment.

Managing excess soil in a responsible way is integral to building sustainable communities. Improper management can result in impacts to ground or surface water quality and/or quantity, natural areas and agricultural lands, and cause a number of local issues including concerns regarding noise, dust, truck traffic, road damage, erosion, drainage and other social, health and environmental concerns.

The Growth Plan for the Greater Golden Horseshoe, under the Places to Grow Act, 2005, and the Provincial Policy Statement, 2014 under the Planning Act encourages the redevelopment of brownfield sites and intensification of urban areas. Redevelopment of brownfield sites (those with former industrial or commercial activities) can also generate *excess soil*, with potentially elevated levels of contaminants. As urban areas intensify, opportunities to re-use soil on-site become limited which results in *excess soils* needing to be transported from the redeveloped sites.

Development of infrastructure, such as transit systems, may also generate *excess soil*.

Management of *excess soil* is a growing concern in the Great Toronto Area (GTA) and rural municipalities surrounding the GTA. The issue has received media attention with a focus on illegal dumping of soil, site alteration by-laws, commercial *fill* operations, tracking *excess soil*, concern over the quality of *excess soil*, and protection of the environment, water, and agriculture.

The way *excess soil* is managed and disposed of also impacts greenhouse gas emissions. Annually, thousands of trucks move *excess soil* around the province emitting

**What is *excess soil*?**

*Excess soil* is soil that is excess to requirements at a construction or development site or project (“source site”); it is not needed on the source site after it is excavated and must be moved to a new, off-site, location. Soil remaining within a project site is not considered *excess soil* (see glossary – **Section 8.4** - for more detailed definitions of *italicized terms*).

greenhouse gases. Local re-use of *excess soil* can reduce these greenhouse gas emissions.

While existing legislation, regulation, by-laws and policies address different aspects of *excess soil management* such as waste approvals for *soil processing sites*, records of site condition for brownfields redevelopment sites, and municipal permits under site alteration by-laws – see **Appendix 8.1** for more information), there is no overall policy framework for the management of *excess soil*.

In January 2014, the Ministry of the Environment and Climate Change (MOECC) released a guide titled the “*Management of Excess soil – A Guide for Best Management Practices*” (BMP). This BMP sets out the province’s expectations for all those managing soil and encourages the *beneficial reuse* of *excess soil* in a manner that promotes sustainability and the protection of the environment. It assists those managing *excess soil*, particularly when the *excess soil* may be affected by contamination, and in preventing and mitigating the potential for adverse effects. The BMP encourages re-use of soil and provides guidance on managing *excess soil* at the site where it is excavated, during its transportation and where it is received.

Many organizations in Ontario are working to improve the management of *excess soil* through their own activities (including industry best management practices, conservation authority guidelines, municipal pilot projects, qualified person guidance and soil matching programs). The province developed the proposed Excess Soil Policy Framework to protect human health and the environment from inappropriate relocation of *excess soil* and enhance opportunities for the *beneficial reuse* of *excess soil*.

## 1.2 ENVIRONMENTAL BILL OF RIGHTS REVIEW

In January 2014, the Ministry of the Environment and Climate Change accepted to undertake a review of *excess soil management* in response to an Environmental Bill of Rights (EBR) application of November 2013.

The application for review requested “*a review of the need to establish a new comprehensive, province-wide policy to address the problem of compromised soil*”. The applicants stated that they were concerned about the impacts of what they termed “*compromised soil*” from urban development to health and safety and the environment. They also stated that current rules related to *excess soil* were a “*patchwork*” with a lack of oversight and called for leadership to ensure “*compromised soil is disposed of properly*.” They also asked for a multi-ministry approach, including involvement from the Ministry of Municipal Affairs and Housing.

The EBR review supports a provincial commitment made in Ontario’s Great Lakes Strategy to “*develop a policy framework for soil management, including encouragement of best management practices to support the re-use of excess soil for beneficial uses, as long as it can be done in a way that protects human health and the environment.*”

Further, this issue was recognized in the Ontario legislature. In December, 2014, a motion received all party support for the government to “...consider the development of a strategy for disposing of [excess soil] in a sustainable and environmentally conscious fashion”.

The EBR review also assessed whether certain aspects of MOECC’s BMP required additional policy to support its implementation and address any policy gaps.

As part of undertaking the review, the MOECC convened a multi-ministry working group, consisting of Ministries of Municipal Affairs and Housing; Natural Resources and Forestry; Agriculture, Food and Rural Affairs; and the Ministry of Transportation, Economic Development, Employment and Infrastructure and Tourism, Culture and Sport. This group helped inform the findings of the review and will continue to work together to develop the solutions needed to implement the recommendations of the review.



Listening sessions on the application for review were held in the fall 2014, including:

- Two sessions with a wide range of municipalities
- Agricultural and rural community sectors
- Select Conservation Authorities and Conservation Ontario
- Ontario Environment Industry Association
- Residential and Civil Construction Alliance of Ontario
- Ontario Sand, Stone and Gravel Association
- Municipal Engineers Association
- Association of Professional Geoscientists / Professional Engineers Ontario
- Ontario Waste Management Association
- Brownfield stakeholders, the development sector, and government agencies including Infrastructure Ontario and Metrolinx
- Local community and environmental groups

First Nations were informed about the review and a meeting was held with those that expressed interest.

The MOECC and other ministries re-engaged select representatives in Fall 2015 to validate and discuss preliminary findings and outline the general elements of the proposed framework (see **Appendix 8.3** for a list of what was heard in these sessions). The conclusion from these sessions is that there is wide support for the proposed approach.

## 2.0 NEED FOR A REVISED POLICY FRAMEWORK

The province consistently heard that the current system for oversight and management of *excess soil* requires stronger direction and clear and enforceable rules which clearly identify the roles and responsibilities as *excess soil* is generated and then moved from a *source site* to a final *receiving site*.

### 2.1 SUMMARY OF FINDINGS FROM ENGAGEMENT

Through stakeholder engagement, it was assessed that *excess soil management* policy could be clarified and improved, and that some new policies may be warranted, including a need for:

- **greater responsibility by owners of *source sites*** that generate *excess soil* to ensure that their *excess soil* reaches appropriate *receiving sites*
- **clearer roles and responsibilities** amongst all who manage or provide an oversight role in the management of *excess soil*
- **filling specific gaps in receiving site oversight and new guidance to promote better oversight at *receiving sites***, including to inform municipal by-laws,
- **greater clarity of existing regulations** such as brownfields-related requirements and inert fill provisions clarifying when *excess soil* must be managed as a “waste”
- **enhanced enforcement mechanisms and tools** to address illegal activities
- **clearer technical guidance and direction** with respect to *excess soil* re-use standards and testing procedures, to assist technical professionals, to integrate into oversight policies, and to help ensure *excess soil management* is protective of human health and the environment
- **better tracking and record keeping** of *excess soil* movements to confirm that *excess soil* reaches intended *receiving sites* and to facilitate oversight
- **protection of sensitive areas of provincial and local interest**, including natural heritage and hydrologic features and functions, farmland, and significant cultural heritage landscapes and archaeological resources
- **greater consideration of *excess soil management* when planning** for development and infrastructure projects, to better plan for appropriate *excess soil* re-use and to identify and promote local re-use opportunities for *excess soil*

By improving these areas, the province could further strengthen environmental protection and provide greater confidence in the proper management of *excess soil*.

## 2.2 SUMMARY OF FINDINGS FROM RESEARCH

Further reviews and assessments have informed the need for policy. Key research findings indicate:

- **Ontario could learn from approaches in other leading jurisdictions:** Other jurisdictions including the United Kingdom (CL:AIRE), Quebec, the Netherlands and some US states, such as Massachusetts, employ a range of approaches and a variety of tools to provide oversight to the management of *excess soil*. These approaches range from extensive government oversight through regulation, tracking, and planning for re-use to more flexible and voluntary approaches allowing industry to self-regulate and agreed upon codes of practice (see **Appendix 8.2** for more information).

Key lessons learned from these jurisdictions include the need for:

- Clearly articulated goals and principles to guide governments, local authorities and industry
  - Rules around tracking of *excess soil* to improve compliance, garner public confidence and allow for transparency
  - Clear roles and responsibilities for those who manage *excess soil*, whether it be industry, government or qualified persons
  - Standards to allow for the *beneficial reuse* of *excess soil* as a resource, while protecting sensitive areas and clearly articulating when *excess soil* is a waste
  - Greater *source site* responsibility, including better planning early on in the development planning process to encourage *excess soil* re-use and minimize the need to move *excess soil*.
- **Existing policy tools do not provide adequate oversight over the life cycle of *excess soil*:** The current oversight for managing *excess soil* focuses on *receiving sites*. Municipalities and conservation authorities are the main permitting bodies for these *receiving sites* through site alteration by-laws under section 142 of the Municipal Act and regulations made under section 28 of the Conservation Authorities Act. Excess soil may also be received at sites overseen by other legislation such as the Aggregates Resources Act or landfills under the Environmental Protection Act. Generally, the MOECC may respond to incidents of mismanagement of *excess soil* if there are complaints of illegal dumping of waste or of potential adverse effects under the Environmental Protection Act. Existing policy tools are not clear regarding *source site* responsibility, and the

policy tools providing authority for oversight of receiving sites leave some gaps in authority.

- **Excess soil from “brownfield” sites could be better tracked:** The MOECC reviewed Records of Site Condition (under O. Reg. 153/04 of the Environmental Protection Act). Records of Site Condition are required to be filed when a property use changes from a lesser to more sensitive use (e.g. industrial use to residential). In its analysis the MOECC found that many of these properties are a source of *excess soil*. While the regulation requires information on soil moving on to these properties, there are no requirements or records of where *excess soil* may be going once it leaves these properties. Since this *excess soil* may be leaving properties which once had industrial or commercial uses, it is important for it to be managed properly and tracked.
- **Municipal site alteration by-laws could benefit from additional guidance to promote better oversight:** Many municipalities have recently updated their by-laws to assist in the management of *excess soil*. These by-laws often vary in scope based on local challenges, with some adopting strong municipal control and restrictions and others allowing for *fill* placement under differing degrees of oversight. Some of these by-laws incorporate MOECC soil quality standards for Records of Site Condition and others do not. Similarly, some allow for recovery of costs of oversight through revenue and others do not. They also incorporate a variety of rules to provide oversight to other matters associated with the management of *excess soil*, including noise, truck traffic and dust. The varying approaches has resulted in the movement of *excess soil* to those jurisdictions with limited capacity to deal with the issue and/or less stringent requirements.



- **There is confusion about what standards should apply to the movement of excess soil and when excess soil is “inert fill”:** In the absence of provincial direction on standards for *excess soil* movement, brownfields standards are being applied. However, these standards were not developed to be used in relation to *excess soil* movement. The models used to develop these standards



are based on potential spill scenarios that may have occurred at a property where a Record of Site Condition is to be filed and were not designed to deal with large amounts of fill from many locations being deposited at a particular property.

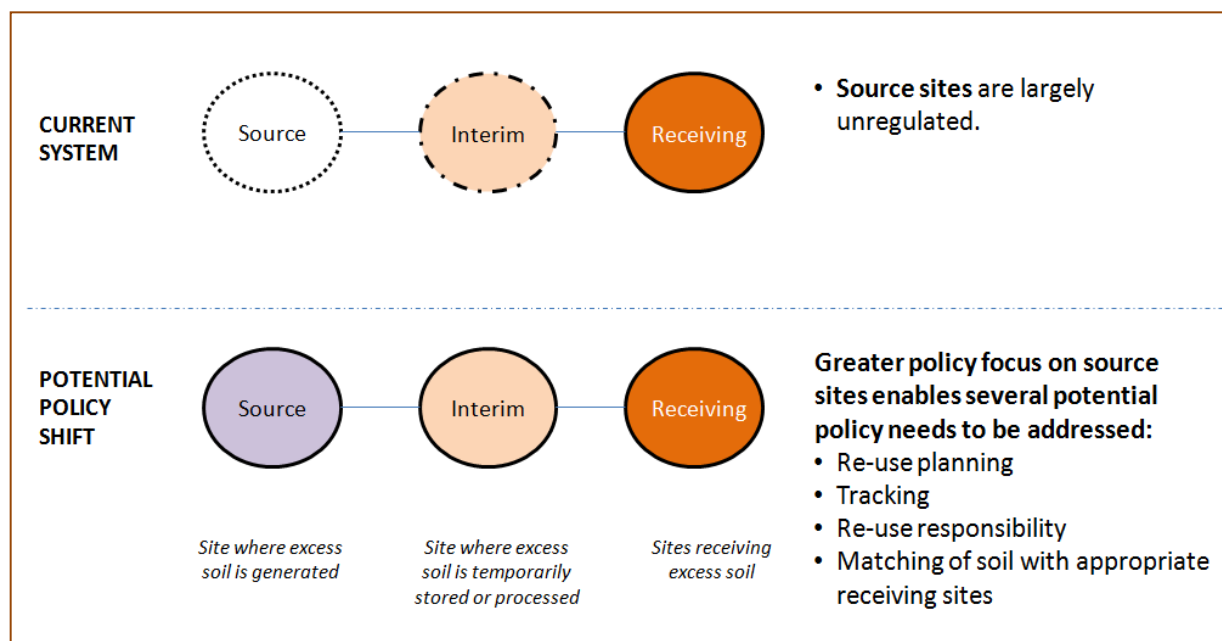
Regulation 347 under the EPA (Waste Management – General) designates “inert fill” as a waste and then goes on to exempt “inert fill” from the waste management requirements under Part V of the EPA. “Inert fill” is defined as “earth or rock fill or waste of a similar nature that contains no putrescible materials or soluble or decomposable chemical substances”. Currently generators of *excess soil* must decide whether their *excess soil* meets the definition of inert fill but there are no clear means to make this determination.

- **Approvals for processing sites could be clarified:** The MOECC reviewed Environmental Compliance Approvals for soil processors and mobile soil processors and found that since 1993 approximately six applications have been approved, with two pending approvals for 2015. The MOECC found that older approvals had differing approaches related to the management of *excess soil*, with newer ones being more consistent and taking into account the MOECC’s January 2014 BMP.
- **There is a general lack of information about the amount and quality of *excess soil* being managed in Ontario:** The Residential and Civil Construction Alliance of Ontario (RCCAO) estimates that approximately 20 million cubic metres of *excess soil* is excavated annually from construction sites from 2008 to 2010. However these figures are based on broad assumptions and the actual movement of *excess soil* is largely unknown. Similarly the quality of the *excess soil* moving in Ontario is largely unknown.

## 3.0 POLICY FRAMEWORK APPROACH

**This document outlines a proposed policy framework and proposed actions under that framework.**

The proposed policy framework embraces an approach that puts materials, like *excess soil*, back into the system so that they can be reused, when safe to do so. To achieve this, it is necessary to move toward a system that better provides for life-cycle management, with greater responsibility placed on the *source sites* of *excess soil*. This approach recognizes that the generators of *excess soil* are in the best position to support its reuse.



The current oversight for managing *excess soil* focuses on *receiving sites*. The province heard about the need for generators of *excess soil* to be more responsible for proper management, including ensuring that soil reaches an appropriate receiving site. Greater source site responsibility also enables proper planning for re-use of *excess soil*; better tracking of *excess soil* movements; and matching of *excess soil* with appropriate *receiving sites*.

Under the new proposed framework *source sites* would be responsible for characterizing their *excess soil*, tracking it, and verifying that their *excess soil* reaches an appropriate destination. They would also be encouraged to re-use *excess soil* wherever appropriate, minimizing the need to move *excess soil* in the first place. Together, these requirements would help enhance due-diligence at both *source sites* and *receiving sites*.

### **Building on and Enhancing Existing Tools**

Under the proposed framework, *excess soil management* and oversight would continue to be provided at *receiving sites* through existing permitting authorities, including municipalities and conservation authorities. This approach recognizes the local knowledge of public bodies, the value of these tools and bodies to address local concerns and the efforts they have put in to date to deal with the issue. Under this framework, the province would provide technical guidance to help municipalities and others impose appropriate conditions on sites that receive *excess soil*.

The approach will include a combination of a few critical new policy tools; consider potential amendments to enhance and clarify existing policy tools; and provide guidance to clarify application of existing tools under the framework.

**Enforceable policy tools that are part of the proposed framework are noted in the table below:**

SOURCE SITES	INTERIM SITES	RECEIVING SITES
<ul style="list-style-type: none"> <li>• NEW regulation on excess soil management</li> <li>• Regulation 347, if considered waste</li> </ul>	<ul style="list-style-type: none"> <li>• Municipal Act (bylaws)</li> <li>• Environmental Compliance Approvals for soil processing sites</li> </ul>	<ul style="list-style-type: none"> <li>• Municipal Act (bylaws)</li> <li>• Conservation Authority Act</li> <li>• Ontario Regulation 153/04 – records of site condition</li> <li>• Aggregate Resources Act</li> <li>• Environmental Compliance Approvals for land fill sites</li> <li>• Environmental Protection Act – no adverse effect provisions</li> </ul>

Other requirements would be set out in other regulatory tools, such as the Building Code (applicable law) and Planning Act approvals where relevant.

Many guidance documents also exist that could be updated to help inform use of these regulatory tools such as:

- MOECC’s BMP
- Ontario provincial standards (OPSS180 / 1010)
- RCCAO (Industry) BMP

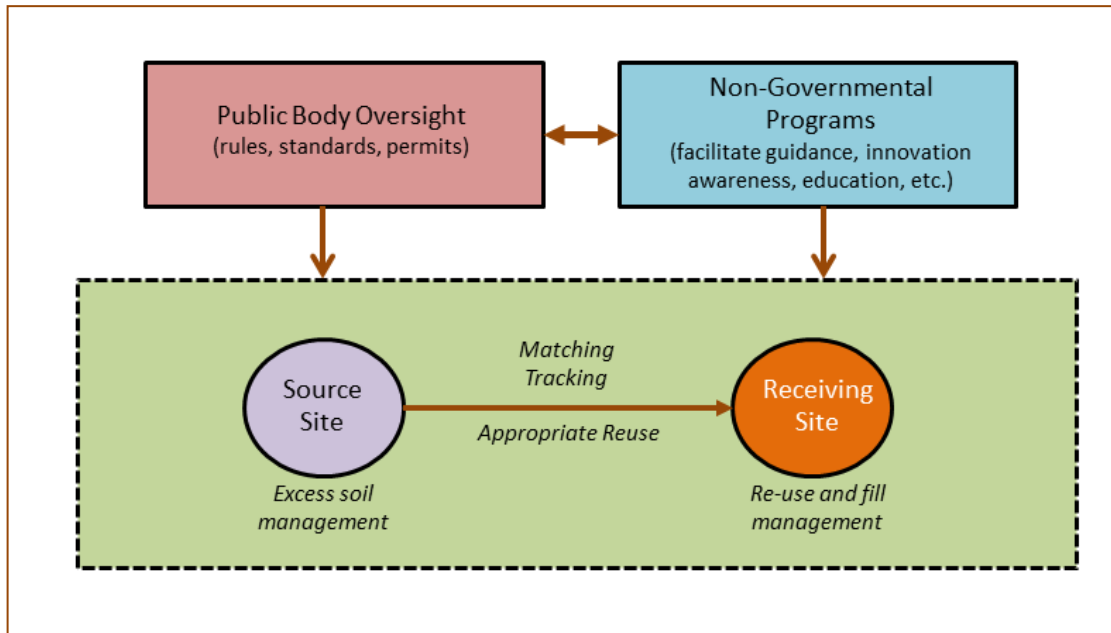
**Clarifying Roles and Responsibilities**

Under the proposed framework, roles and responsibilities would be clarified. The provincial role will be established through a multi-ministry approach. Ministries will enable and facilitate, and in some cases provide oversight and implement, sustainable excess soil management. All ministries will facilitate engagement with interested parties in relation to their mandate.

The province recognizes that municipalities, conservation authorities and other public bodies have multiple responsibilities with roles in oversight, planning for re-use and implementation.

Industry and non-governmental organizations will help in the development of programs to facilitate innovative approaches to soil re-use, use of best practices, compliance and raising awareness, as illustrated in the diagram below:

Key roles are described below:



### Ministry of the Environment and Climate Change

- minimum regulatory requirements for generators of excess soil
- technical guidance to facilitate consistency in oversight, management and re-use, and general excess soil best practices
- clarification and enforcement of Environmental Protection Act and associated regulations, e.g. no adverse effect, waste provisions, brownfields regulations
- integration of excess soil management requirements into relevant approvals, as appropriate, e.g. processing sites

### Ministry of Municipal Affairs and Housing

- guidance and educational materials to support municipalities, e.g. use of municipal by-laws, land use planning and development approvals
- authority for municipal by-laws; provide for integration with other planning and development regulatory tools, as appropriate

### Ministry of Natural Resources and Forestry

- legislative authority for conservation authorities and associated regulations
- integration of excess soil management requirements into relevant approvals, as appropriate, e.g. aggregate resource licenses and permits

### Ministry of Transportation

- implement best practices for highway construction

### Ministry of Agriculture, Food and Rural Affairs

- promotion of best practices for farmers

### Municipalities and Conservation Authorities

- oversight of *receiving sites*, and integrating provincial guidance into municipal by-laws and conservation authority permissions, as appropriate

- integrate sustainable excess soil management as appropriate into planning and development decisions and infrastructure decisions and contracts

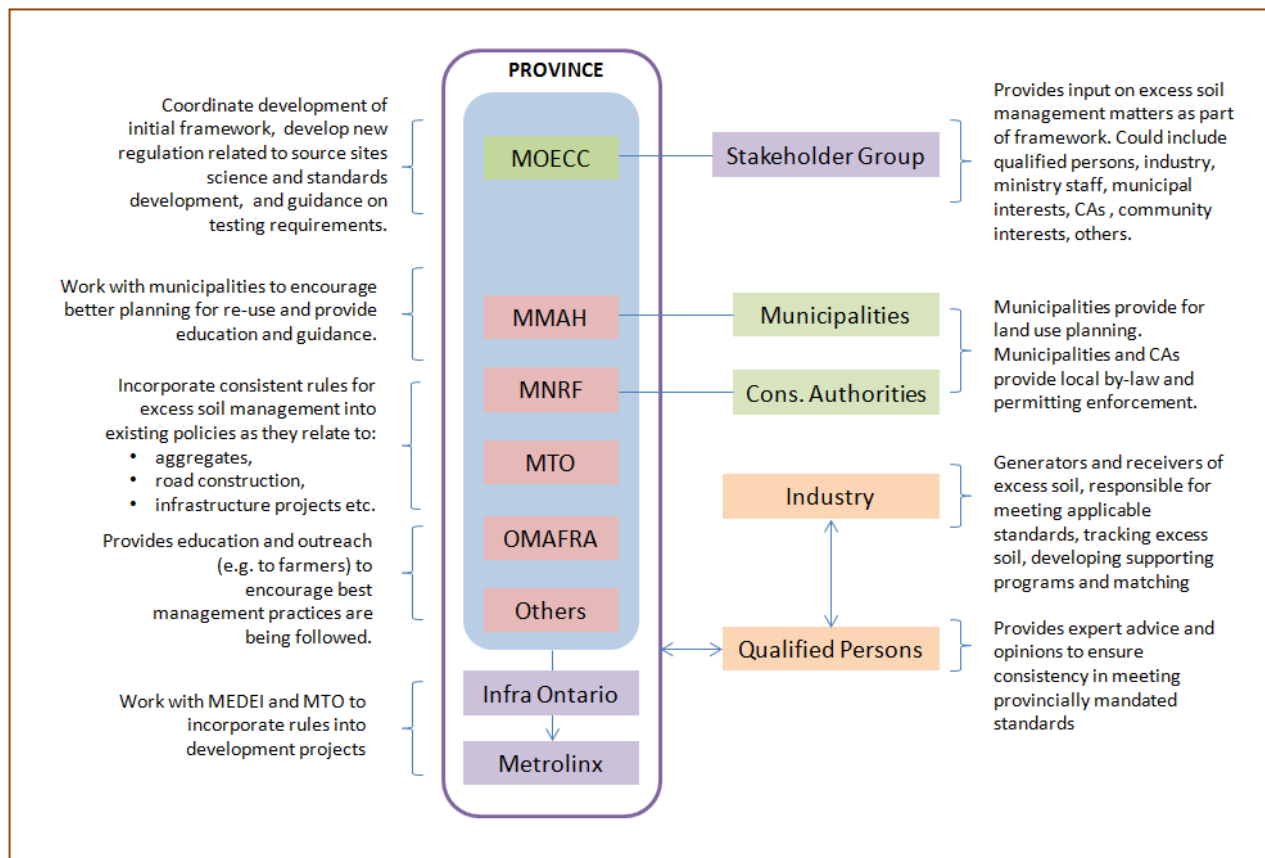
### Qualified Persons

- provide accountability and credible advice consistent with provincial direction and professional practice on technical matters
- provide quality assurance and consistency in advice

### Industry, Property Owners and Non-Governmental Organizations

- owners of *source sites* are responsible for the management of *excess soil* from their properties, including development of excess soil management plans, identification of appropriate receiving sites, and appropriate contractual arrangements
- owners of *receiving sites* are responsible for the management of *excess soil* at their properties, including development of fill management plans
- support implementation through development of programs to facilitate due diligence (e.g. best practices, matching and tracking programs which could include a registry, professional standards, education) potentially through non-governmental organizations
- education of the industry community

The figure below provides an illustration of roles and responsibilities:



## 4.0 GOALS AND PRINCIPLES

The following goals would guide the implementation of a provincial framework:

### GOALS

1. **Protect human health and the environment from inappropriate relocation of *excess soil***
2. **Enhance opportunities for the *beneficial reuse of excess soil***

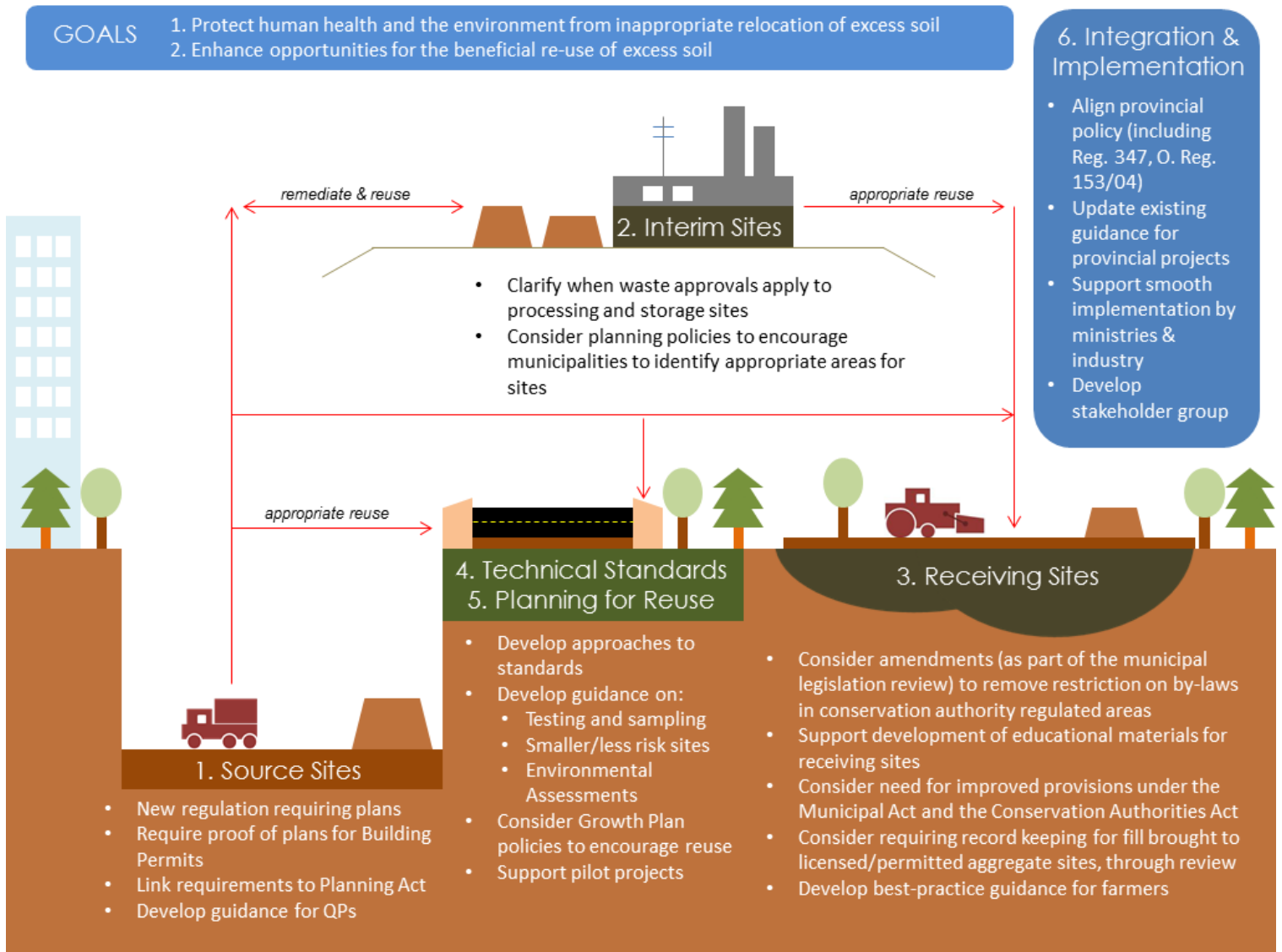
The following **principles** would further guide decision making with respect to the provincial *excess soil* framework:

1. The public should have confidence in the management of *excess soil*.
2. Generators of *excess soil* should be responsible for appropriate management of *excess soil*
3. *Excess soil management* should ensure that farmland, environmentally sensitive areas and ecological functions are protected, and that the future uses of land are considered.
4. *Excess soil* should be treated as a resource and not a waste, where it can safely be reused
5. Generation of excess soil should be minimized, excess soil should be re-used locally if possible, and planning for re-use should be undertaken early to maximize opportunities for re-use
6. Movement of *excess soil* should be traceable to provide for transparency and compliance
7. Approaches should be consistent, flexible, fair and enforceable, using modern regulatory and compliance approaches.
8. Approaches should consider and integrate with existing business practices of the public and private sectors, and should support development of industry-led programs for sustainable re-use of *excess soil*.
9. Approaches should be science and evidence-based.

The principles of the [Ministry of the Environment and Climate Change Statement of Environmental Values](#) would also be considered (e.g. precautionary principle, polluter pays, etc.).

## 5.0 POLICY NEEDS AND ACTIONS

The figure below is an illustration of the proposed provincial framework – including its overarching goals and actions to strengthen oversight of *excess soil management*. Actions are described in greater detail in the next sections of the document.



## 1. SOURCE SITES

### 1.1 Policy Needs

- Clear responsibility on the owner of the *source site* to provide better planning, tracking, and management from “source to re-use” and increase due diligence.
- Ensure early characterization of *excess soil* and planning for *beneficial reuse*, where feasible.
- Verify that *excess soil* is received at an appropriate location for reuse.
- Ensure relevant information is recorded on *excess soil* movement (e.g. quality, quantity, *source site*, hauler, *interim site*, receiving site).

### 1.2 Actions to be Taken

The province proposes the following policy actions related to *source sites*:

1. **MOECC to work with partner ministries to develop a new regulation under the Environmental Protection Act requiring larger and/or riskier *source sites* to develop and implement *excess soil management* plans certified by a Qualified Person and made available to MOECC and local authorities.**

The proposed regulation could apply to the following:

- **Larger sites**, defined by a volume threshold to capture larger infrastructure projects and larger developments (e.g. buildings with underground parking, larger sub-divisions). They would not include smaller projects and *excess soil* from development of small residential properties.





- **Risk-based sites**, including industrial or commercial properties, or other properties that have had a potentially contaminating activity or sites with greater chance of having impacted *excess soil*.

The proposed regulation would require the owner of the *source site* to hire a qualified person and ensure that an *excess soil management* Plan is prepared and certified. The regulation and requirement for a Plan would not apply to soil remaining at a site. The Plan would be required, at a minimum, to include the following:

- characterization of *excess soil* in-situ (including quality, type and volume)
- requirements for testing *excess soil* which could be based on past land use and potential contamination
- identify and ensure *receiving sites* are authorized to accept *excess soil* (e.g. site is regulated by municipal permit and authorized to accept specific quality of *excess soil*)
- confirmation that the quality of *excess soil* is appropriate for the *receiving site* and that testing results are made available to prospective *receiving sites*.
- tracking plan to ensure and verify the *excess soil* arrives at the *receiving site*
- standard record keeping requirements.

The new regulation would require the owner of the *source site* and any person the owner contracts to manage *excess soil* from that property to implement the *excess soil management* plan. The owner would also be required to retain a copy of the *excess soil management* plan at the property for inspection on request of the MOECC. If there is a failure to develop an *excess soil management* plan or a failure to comply with a provision of the plan by any person, and *excess soil* from a *source site* is deposited at another property unlawfully, in addition to any enforcement action under the EPA that can be taken to deal with such non-compliance such as prosecutions, the owner of the *source site* may be required to remove the *excess soil* material from the site where it has been deposited and transport it to an appropriate receiving site.

The new regulation would define what a Qualified Person is and may draw on the definition of Qualified Person in O. Reg. 153/04.

Some ministries, such as the Ministry of Transportation (MTO) have developed best practices for the management of *excess soil* and related materials that are generated from infrastructure projects such as highways. The ministry will seek to ensure that the requirements developed for soil management plans take into account these best management practices and may consider methods to recognize equivalencies of practices. To achieve this, it may be appropriate in certain instances for the regulation to adopt by reference a government

document such as a best management practice guideline, thus ensuring the enforceability of that guideline.

**2. MMAH and MOECC could require proof of an Excess Soil Management Plan for issuance of certain building permits.**

Requirement to have prepared an Excess Soil Management Plan could be made applicable law for certain building permits. The requirement would be met by showing the building official a letter issued from a Qualified Person certifying an *excess soil* management plan has been developed. This would ensure that those who manage excess soil consider implications early in a project, including the need to minimize *excess soil* and maximize *excess soil* re-use, where appropriate. It would also ensure that *excess soil* is characterized and appropriate *receiving sites* are located before excavation of the soil.

**3. MMAH and MOECC to promote linking requirements for excess soil management to applicable Planning Act approvals through guidance**

As a best practice, the province would promote linking planning for *excess soil management* under any new regulatory requirements, such as the new regulatory requirements outlined above, to applicable Planning Act approvals and develop appropriate guidance to support implementation.

**4. MOECC to work with Qualified Persons on excess soil management guidance.**

Guidance will be developed in partnership with professional bodies to help achieve consistency and enhance public confidence in Qualified Person's work and opinions. The guidance will assist in bringing together to help inform the opinions of Qualified Person's on such matters as implementation of regulatory requirements; approaches to and direction on the use of standards; testing and sampling frequency; direction on storage, remediation and other *receiving sites*; best practices for record keeping; and other related matters. It could also serve as a repository linking information from other sources of guidance.

## 2. INTERIM SITES

### 2.1 Policy Needs

- Encourage and allow for temporary *excess soil* storage where it supports *beneficial reuse* at an appropriate location.

- Authorize generators of *excess soil* to temporarily store the *excess soil* at another location where they comply with a set of minimal requirements without approval.
- Define appropriate temporary storage sites for *excess soil* and encourage storage close to *source/receiving site* to reduce transportation and environmental impacts.
- Clarify requirements for *excess soil* storage and *soil processing sites*.
- Distinguish between interim storage and processing sites governed by waste approvals.
- Promote widespread remediation of contaminated soils to enable re-use and help minimize the quantity sent to landfills for disposal, unless appropriate.

## 2.2 Actions to be Taken

The province proposes the following policy actions related to *interim sites*:

### 5. MOECC to clarify when waste approvals apply to *excess soil processing sites* and prescribe requirements for temporary storage sites.

MOECC will continue to issue Environmental Compliance Approval (ECA) waste approvals for *excess soil processing sites* (i.e. remediation) to promote remediation while ensuring the environment and human health are protected.

The new EPA regulation would clarify when ECAs are required to permit the temporary storage of *excess soil*. The regulation would establish the permissible duration for temporary storage and specify minimum controls to ensure the temporary storage does not become permanent and does not result in unacceptable impacts.

### 6. MMAH with MOECC to consider approaches that would encourage municipalities to identify appropriate areas (e.g. industrial) for *excess soil* storage and processing to encourage local re-use, to be achieved through ongoing updates to the provincial land use planning framework, including the coordinated review of provincial plans.

MMAH working with MOECC to encourage municipalities to allow for off-site *excess soil* storage and *soil processing sites* where appropriate.

### 3.1 Policy Needs

- Improve rules for *receiving sites*, including improved oversight with specified minimum environmental and technical requirements.
- Provide guidance to support local (e.g. municipal or conservation authority) oversight for *receiving site* management
- Help address “nuisance effects” related to *excess soil* movement and placement on the *receiving site*, such as noise, dust, odour, and truck traffic as well as wear and tear of roads.
- Help address impacts related to climate change, including greenhouse gas emissions from transporting *excess soils* over long distances.

### 3.2 Actions to be Taken

The province proposes the following policy actions related to receiving sites:

#### **7. MMAH and MNRF to consider amendments to legislation to remove restrictions on site alteration by-laws in conservation authority regulated areas.**

Changes would consider whether municipalities and conservation authorities have the appropriate tools to address issues related to the management of *excess soil* within their authority and that those tools work together effectively.

Municipalities currently have little control over the establishment and operations of a commercial *fill* operation within the municipal boundaries if it is located in an area regulated by the conservation authority. Conservation authorities are limited under the Conservation Authorities Act to consideration of specific matters which do not include many matters that could be considered under a municipal by-law.

Section 142 of the Municipal Act, 2001, provides municipalities with specific powers to prohibit or regulate the placing or dumping of *fill*, removal of topsoil, and the alteration of the grade of the land, subject to certain limits, such as subsection 142(8).

Subsection 142(8) provides that municipal site alteration by-laws have no effect in areas that are regulated by the conservation authority under the Conservation Authorities Act (the Development and Alterations regulations).

Changes that would allow municipalities to regulate site alteration and placement of *fill* within their municipality, while allowing conservation authorities to fulfill their mandate, have been proposed. This would allow both conservation authorities and municipalities to continue to work collaboratively to regulate the placement of *fill*.



**8. MMAH and MOECC to develop educational materials respecting *receiving sites*, including larger (commercial) sites, to inform municipalities in the development or updating of by-laws.**

These educational materials would be used by municipalities to update and/or create by-laws and inform the development of *fill* management plans (used at *receiving sites* to manage *excess soil* being brought on to the site). The educational materials could include information about:

- Guidance on *fill* quality standards;
- Use of Qualified Persons;
- Testing requirements (audit sampling, frequency);
- Record keeping and documentation (e.g. *source sites*, volumes and quality);
- Verification of source site;
- Contents of *Fill* Management Plans;
- Considerations for:
  - filling in relation to natural features and maintenance of ecological processes (e.g. infiltration);
  - consultation, notification;
  - traffic, transportation (trucking and haul routes);
  - invasive species;
  - odour, noise and dust; (during transport and during *fill* placement at the *receiving site*)
  - site security and signage;
  - stormwater considerations and erosion controls;
  - complaint receipt and handling;

- groundwater protection considerations; and
- protecting significant cultural heritage landscapes and archaeological resources.

**9. MMAH and MNRF to explore, with partners, legislative and non-legislative ways to improve compliance and enforcement with Municipal Act and Conservation Authorities Act requirements.**

Consider whether there is a need for changes to legislation, procedures or consequences to provide better management and oversight of excess soil matters.

**10. MNRF to consider requiring record keeping for *fill* being brought to licensed and permitted aggregate sites, through the current review of the Aggregate Resources Act.**

The importation of *fill* for the rehabilitation of aggregate sites has been a growing concern over the past few years. To ensure that all sites that are authorized to import *fill* for rehabilitation are maintaining minimum records, changes are being considered to the Aggregate Resources Act that would require existing sites to keep records of *fill* (e.g., source, shipper, deposit location) where it is brought onto a site for rehabilitation purposes. These changes would address requirements related to *fill* now and will provide power to improve record keeping and reporting on activities that could impact the environment in the future.



**11. OMAFRA and MOECC to develop best-practice guidance for farmers to limit impacts of the importation of soil onto farmland.**

Guidance would help clarify the issues that farmers should consider when making decisions on importing *excess soil* onto their properties for use in their

agricultural operations. The intent would be to limit negative impacts on farmland.

This guidance could include information on:

- beneficial uses of imported *excess soil*;
- potential issues associated with bringing *excess soil* onto an agricultural property (environmental impacts, drainage alteration, stockpile runoff/dust, impacts on neighbouring properties, municipal considerations, insurance coverage, legal considerations);
- the regulatory provisions, requirements and approvals that may apply (provincial legislation, municipal legislation and bylaws, Farming and Food Production Protection Act, Conservation Authorities Act); and

The intended outcome would be for farmers to be better informed of the benefits and risks of accepting *excess soil*. Farmers would become more aware of regulatory requirements and approvals for importing *excess soil* onto their agricultural operations and will become familiar with best management practices for handling and using *excess soil* in their agricultural operations.

## 4. TECHNICAL STANDARDS

### 4.1 Policy Needs

- Provide direction on technical matters such as standards for re-use and testing requirements that:
  - Ensure the protection of human and ecological health
  - Reflect quality of *excess soil* appropriate for *beneficial reuse* at a variety of *receiving sites*
  - Enable characterization, and support tracking, matching, re-use, including remediation
  - Can be used to support a variety of policy tools (e.g. provincial regulations, municipal by-laws)
  - Are science and evidence based
  - Are flexible and practical, but also provide for consistency in application
  - Help define when *excess soil* is a “waste”, including following treatment at a processing site
- Promote transparency of standards in order to gain public confidence

### 4.2 Actions to be Taken

The province proposes the following policy actions related to technical matters:

## 12. MOECC to develop approaches and standards for re-use of excess soil that provide for environmental protection and sustainable re-use of excess soil

MOECC would work with stakeholders to develop approaches which could consider the following:

- **Protection of Sensitive Sites** – There could be recognition that certain types of areas have particular features, resources or sensitivities and should not be areas where *excess soil* is deposited (e.g. natural areas such as wetlands) unless for a specific *beneficial reuse* (e.g. restoration). *Excess soil* brought to such sites could be required to meet certain stringent standards.
- **Use of local background conditions** – For some sites, the use of *excess soil* that meets background levels may be preferred. We have also heard the need to better enable use of local background conditions rather than current provincial background levels (i.e. Table 1 in O. Reg. 153/04). Feasible approaches to enable this could be considered.
- **Use of generic risk based approaches** – It is proposed that generic risk based standards based on land use could be used for the deposit of *excess soil* in some circumstances. This could allow for the reuse of marginally impacted soils in specific circumstances, particularly in areas already impacted and areas where future uses will be less sensitive.
- **Specific risk based approaches** – Risk-based standards could also be developed in relation to specific uses or circumstances. It may also be possible to incorporate predictable risk management measures into these standards. Examples of these specific uses may include infrastructure projects, sound and sight berms, flood control structures, certain former aggregate sites undergoing rehabilitation, certain brownfields sites, or mines. Specific circumstances with specific rules could also be considered, for example specific rules associated with salt-impacted *excess soil*. Site specific risk assessments and risk management approaches requiring technical review and ongoing requirements or restrictions would generally be limited to circumstances involving an appropriate site specific legal instrument, e.g. where a record of site condition is required by regulations.

## 13. MOECC to develop clear guidance to inform requirements for testing of excess soil.

MOECC would work with industry, consultants and experts to develop clear rules and guidance for testing and sampling *excess soils* in a variety of circumstances to inform regulatory requirements and guidance for by-laws and other policy.



These requirements would be pragmatic and will consider the costs of testing and risks to human and ecological health. They would be developed in close collaboration with experts including the Qualified Persons who would be expected to use them.



#### **14. MOECC to develop guidance for smaller, lower risk source or receiving projects or sites**

The province would work with industry to develop protocols to support management of materials from smaller projects which do not fall within the categories of “riskier sites” or within volume thresholds for larger sites (as described in Action 1). This could include testing protocols at source and/or *receiving sites* and the development of an inspection protocol for these sites.

## **5. PLANNING FOR RE-USE OPPORTUNITIES**

### **5.1 Policy Needs**

- Encourage municipalities to plan *excess soil* re-use opportunities when planning for growth and intensification.
- Integrate identification of re-use opportunities into design and management of large projects
- Facilitate identification of viable re-uses and management protocols.

### **5.2 Actions to be Taken**

The province proposes the following policy actions related to planning for re-use:

#### **15. MMAH with MOECC to identify opportunities to encourage municipalities to develop soil re-use strategies as part of planning for growth and development (e.g. official plans, master planning) through ongoing updates to the provincial land use planning framework, including the coordinated review of provincial plans.**

Encourage municipalities to help ensure that future growth and planning includes an assessment of *excess soil* that may be generated and considers opportunities for re-use. This proposed direction could help inform future updates to official

plans and ensure consideration is given to large scale developments which require the management of *excess soil*, and also the location of future *receiving sites* and temporary sites for *excess soil*.

**16. MOECC to develop guidance for the consideration of *excess soil* in the environmental assessment processes that govern large scale infrastructure and other development projects.**

MOECC would develop guidance to help ensure that proponents consider *excess soil management*. This approach could help integrate *excess soil management* planning into Environmental Assessments for large projects, including consideration of opportunities for re-use within the project, re-use locally, and for use of other local *excess soils* within a project.

Guidance would also be developed to help ensure proponents consider integrating *excess soil management* as part of the overall project planning process, as applicable.

**17. Province to support pilot projects identifying opportunities and procedures for *excess soil* re-use.**

The province will continue to support pilot projects with partners to help promote opportunities for *excess soil* re-use. These types of projects will also help to identify areas for improvements in the proposed framework and inform proposed future policy, guidance and regulatory development.

## 6. INTEGRATION AND IMPLEMENTATION

### 6.1 Policy Needs

- Integrate and align provincial legislation, regulations, guidelines, processes and other policy related to *excess soil* to ensure consistency and alignment with new framework. Including alignment related to:
  - Environmental Protection Act
    - Inert fill definition in Regulation 347 (General – Waste Management)
    - Ontario Regulation 153/04 (Records of Site Condition)
  - Aggregate Resources Act
  - Provincial plans
  - Municipal tools (by-laws, policies)
  - Environmental Assessment Act
- Draw upon the expertise outside of the Ministry to ensure effective and practical policies

- Education to facilitate alignment of policies and implementation

## 6.2 Actions to be Taken

The province proposes the following policy actions related to integration and implementation:

### 18. MOECC to integrate and align various aspects of provincial policy.

The province will ensure that current legislation, regulations and policy are aligned with new framework. This would include:

- a. Amend the definition of inert fill in **Regulation 347** (Waste) under the Environmental Protection Act to clarify when *excess soil* is a waste; a new approach could link to standards for re-use of *excess soil*.
- b. Amend **Ontario Regulation 153/04** (Records of Site Condition) under Environmental Protection Act to clarify requirements and ensure alignment both as a *source site* and *receiving site* (e.g. requirements for *excess soil* brought to a site, record keeping of receiving sites used, roles of qualified persons).

### 19. Province, including MOECC, MTO and MEDEI, to review and update existing guidance for provincial projects (e.g. transportation and infrastructure) to ensure alignment.

The province, including MOECC, MTO and MEDEI, would review existing guidance, practices and rules for provincial infrastructure projects and expenditures to align with new requirements and incorporate best practices for the management of *excess soil*. Guidance would provide for greater consistency in the management of *excess soil* with consideration for the goals and principles laid out within this framework. This approach would respond to stakeholders who have indicated that there are gaps in current tendering processes. This approach could further be promoted to municipalities, in particular those who may have large *source sites* for projects producing *excess soil*.

Procurement practices could be formalized through education and outreach efforts with agencies responsible for large scale projects, but also by working to ensure that standardized tendering requirements incorporate considerations for sustainable management of *excess soil*.

### 20. MOECC to develop a stakeholder group (and potential sub-working groups) to provide input on proposed policies, technical matters, guidance and implementation, including coordination with external programs.

MOECC would establish an **Excess Soil Stakeholder and Engagement Group** to help validate approaches. This working group could consist of provincial ministries, the development and construction industry, qualified persons, municipal representatives, conservation authority representatives (both urban and rural), community and environmental representatives, the aggregate industry, the agricultural and rural community sectors, infrastructure, transit and the waste sector, and others as appropriate. First Nation and Metis representatives would also be included or otherwise engaged in policy development.

This group would also support implementation, through relevant associations, to help ensure education and outreach is undertaken.

This group could also provide a critical role in informing the development of industry-led innovations including support for *excess soil* matching programs that facilitate and encourage matching and better tracking of *excess soil* between *source sites* and appropriate *receiving sites*.

The stakeholder group could further be supported by sub-working groups which would focus more closely on specific policy products. These could include:

1. **Technical** sub-working group to provide input on technical matters, including standards, sampling, tracking and record keeping. This group could consist of experts in partner ministries, industry, qualified persons, and scientists.
2. **Municipal and Conservation Authority** sub-working group to provide input on *receiving site* guidance and other implementation matters.

These groups would include membership from other ministries, including the Ministry of Municipal Affairs and Housing, Ministry of Transportation, Ministry of Natural Resources and Forestry, and the Ministry of Agriculture, Food and Rural Affairs, wherever appropriate.

**21. Industry and MOECC will jointly investigate approaches to program delivery, e.g. like the UK CL:AIRE model, that promote market-based mechanisms to encourage the reuse of excess soil.**

Industry and MOECC would work jointly, through the working group, to consider program delivery approaches led by industry or through a non-government organization or enterprise. This type of enterprise could raise awareness, encourage reuse, and facilitate better matching and tracking (e.g. through a registration system) of *excess soil* between *source sites* and appropriate *receiving sites*. This approach could help identify innovative and practical solutions for planning, management and re-use of excess soil.

## 6.0 PRIORITIES AND TIMELINE

The actions outlined in the proposed framework will be prioritized based on feedback heard through consultation. The Ministry would work with its partner ministries, industry and qualified persons to follow through on a number of actions over the next year and into the future, including the following potential actions which are either already underway or would be initiated in the near future:

PROPOSED ACTION	Currently Underway	Short-term (2016)	Longer-term
1. MOECC to work with partner ministries to develop a new regulation under the EPA requiring larger and/or riskier <i>source sites</i> to develop and implement excess soil management plans certified by a Qualified Person and made available to MOECC and local authorities.		X	
2. MMAH and MOECC, could require proof of an Excess Soil Management Plan for issuance of certain building permits.			X
3. MMAH and MOECC, to promote linking requirements for <i>excess soil management</i> to applicable Planning Act approvals through guidance			X
4. MOECC to work with Qualified Persons on <i>excess soil management</i> guidance.	X		
5. MOECC to clarify when waste approvals apply to <i>excess soil processing sites</i> and prescribe requirements for temporary storage sites.		X	
6. MMAH with MOECC to consider approaches that would encourage municipalities to identify appropriate areas (e.g. industrial) for <i>excess soil</i> storage and processing to encourage local re-use, to be achieved through ongoing updates to the provincial land use planning framework, including the coordinated review of provincial plans.	X		
7. MMAH and MNRF to consider amendments to legislation to remove restrictions on site alteration by-laws in conservation authority regulated areas.	X		
8. MMAH and MOECC to develop educational materials respecting receiving sites, including larger (commercial) sites, to inform municipalities in the development or updating of by-laws.		X	
9. MMAH and MNRF to explore, with partners, legislative and non-legislative ways to improve compliance and enforcement with Municipal Act and Conservation Authorities Act requirements.	X		
10. MNRF to consider requiring record keeping for fill being brought to licensed and permitted aggregate sites, through the current review of the Aggregate Resources Act	X		
11. OMAFRA and MOECC, to develop best-practice guidance for farmers to limit impacts of the importation of soil onto farmland.	X		
12. MOECC to develop approaches and standards for re-use of <i>excess soil</i> that provide for environmental protection and sustainable re-use of <i>excess soil</i> .		X	X
13. MOECC to develop clear guidance to inform requirements on testing of <i>excess soil</i> .			X
14. MOECC to develop guidance for smaller, lower risk source or receiving projects or sites.			X

PROPOSED ACTION	Currently Underway	Short-term (2016)	Longer-term
15. MMAH with MOECC to identify opportunities to encourage municipalities to develop soil re-use strategies as part of planning for growth and development (e.g. official plans, master planning) through ongoing updates to the provincial land use planning framework, including the coordinated review of provincial plans.	X		
16. MOECC to develop guidance for the consideration of <i>excess soil</i> in the environmental assessment processes that govern large infrastructure and other development projects.			X
17. Province to support pilot projects identifying opportunities and procedures for <i>excess soil</i> re-use		X	
18. MOECC to integrate and align various aspects of provincial policy including Regulation 347 (Waste) and O. Reg. 153/04.		X	
19. Province, including MOECC, MTO and MEDEI, to review and update existing guidance for provincial projects (e.g. transportation and infrastructure) to ensure alignment.			X
20. MOECC to develop a stakeholder group (and potential sub-working groups) to provide input on proposed policies, technical matters, guidance and implementation, including coordination with external programs.		X	
21. Industry and MOECC will jointly investigate approaches to program delivery, e.g. like the UK CL:AIRE model, that promote market-based mechanisms to encourage the reuse of excess soil.		X	

## 7.0 QUESTIONS FOR CONSIDERATION

The Ministry would like your opinion and comments on this framework, including the following key questions:

1. Does the proposed policy framework include adequate policy tools and actions to improve the management of *excess soil* in Ontario? If not, what additional tools or actions would you suggest?
2. Are you aware of examples of existing best practices from other jurisdictions that may be helpful to Ontario that you would like to share?
3. Which proposed actions do you see as a priority?
4. What role do you see for you or your organization in implementing the proposed framework?
5. What role do you see for industry or non-governmental organizations in supporting delivery of excess soil programs for soil matching, tracking, and promoting innovation, etc.?
6. How can the province best continue to engage you or your organization and the public as it moves forward?
7. Do you have any other comments or feedback?

## 8.0 APPENDICES

### 8.1 EXISTING POLICY

While several pieces of legislation and regulations apply to specific aspects of *excess soil management*, the majority of *excess soil* moved in Ontario is, for the most part, not directly regulated by MOECC. Ontario's January 2014 Best Management Practices for *excess soil* though provides guidance on *excess soil management*, including at the site where it is excavated, during its transportation and at the receiving site.

Different levels of government and various agencies regulate certain aspects of *excess soil* movement, particularly the province, municipalities and conservation authorities. The table below outlines specific legislation, regulation, policy and other instruments and their roles in the management of *excess soil*.

#### ***Environmental Protection Act (EPA) "Adverse Effect" and Ontario Water Resources Act***

Broad provisions prohibiting discharges that cause or may cause adverse effect, and providing authority for the Ministry to issue orders requiring measures to prevent, stop or remediate adverse effects

Provides authority to address impairment of waters, and measures to prevent impairment of waters.

Weblinks for more information:

- <http://www.ontario.ca/laws/statute/90e19>
- <http://www.ontario.ca/laws/statute/90o40>

#### **Records of Site Condition (RSC) – EPA and O. Reg. 153/04**

A Record of Site Condition (RSC) is required before certain changes in property use take place, where the property use goes from a less sensitive to more sensitive use (e.g. from industrial to residential).

The regulation ensures the quality of soil brought to an RSC property meets certain standards, depending on a number of factors including historical uses, as well as environmental site assessment requirements.

Weblink for more information:

- <http://www.ontario.ca/laws/regulation/040153>

#### **Management of Excess soil – A Guide for Best Management Practices**

- A best practices document that provides guidance on how to handle *excess soil* generated from large-scale projects. It provides guidance for: soil source sites; soil receiving sites; temporary soil storage sites; traffic and transportation management; and procurement practices for projects that include soil management. It also provides guidance that could be used to inform municipal by-laws.



Weblink for more information:

- <http://www.ontario.ca/document/management-excess-soil-guide-best-management-practices>

#### **Reg. 347 General-Waste Management under the EPA**

Transportation, storage, deposit and disposal of soil that is waste must be authorized by an Environmental Compliance Approval (ECA), except where the waste soil is “inert fill” as defined in Reg. 347.

Inert fill is designated as waste, but exempted from the need for an ECA. Inert fill may or may not be soil.

Weblink for more information:

- <http://www.ontario.ca/laws/regulation/900347>

#### **Municipal Act, 2001 - By-laws**

S. 142 provides authority for municipalities to establish by-laws to prohibit or regulate the placing or dumping of fill, removal of topsoil, or alteration of the grade of land, and establish a requirement for permits for these activities. Municipalities may also enact bylaws to manage other aspects of site alteration and filling (e.g. noise and dust control). Municipal site alteration bylaws are of no effect in certain Conservation Authority regulated areas.

Weblink for more information:

- <http://www.ontario.ca/laws/statute/01m25>

#### **Conservation Authorities Act - Regulations**

Enables municipalities to establish conservation authorities and defines regulation-making authority for purposes of public safety and natural hazard management. The placement of any material in areas affected by the regulations made under the Conservation Authorities Act requires a conservation authority permit. All conservation authorities have programs in flood and erosion control within their jurisdictions.

Weblink for more information:

- <http://www.ontario.ca/laws/statute/90c27>

#### **Provincial Policy Statement and Provincial Plans**

Include a range of policies affecting development and site alteration. Policies do not generally apply to *excess soil*, as commercial filling is not considered a land use.

Weblinks for more information:

- <http://www.mah.gov.on.ca/Page215.aspx>
- <http://www.mah.gov.on.ca/Page186.aspx>

#### **Aggregate Resources Act**

Supplementary guidance to the legislation provides conditions for placing of fill on aggregate sites (e.g. for rehabilitation purposes).

Weblink for more information:

- <http://www.ontario.ca/laws/statute/90a08>

### ***Farming and Food Production Protection Act***

The Act continues the Normal Farm Practices Protection Board and provides a procedure to apply to the Board to determine what constitutes a “normal farm practice” in a particular case. The Act protects farmers from liability in nuisance resulting from a normal farm practice. It further provides that certain municipal by-laws may not restrict a normal farm practice that is carried on as part of an agricultural operation. The Act provides the Minister with authority to issue directives, guidelines or policy statements and Board decisions are required to be consistent with those documents.

Weblink for more information:

- <http://www.ontario.ca/laws/statute/98f01>

### ***Environmental Assessment Act***

Sets framework for individual environmental assessments (EAs), Class EAs, and streamlined EAs under regulation.

Weblink for more information:

- <http://www.ontario.ca/laws/statute/90e18>

### ***OPSS (180 and 1010)***

Provides guidance for management of excess earth, aggregate, rock, and various other materials for consideration in provincial transportation and infrastructure contracts.

Weblinks for more information:

- [OPSS180](#)
- [OPSS1010](#)

## 8.2 SUMMARY OF SELECT OTHER JURISDICTIONS

Below is a summary of findings from key jurisdictions.

### **UNITED KINGDOM**

#### **Implementation Approach:**

- Voluntary best practices approach, when following code of practice provides exemption from government approvals
- Contaminated Land: Applications in Real Environments (CL:AIRE) is an independent not-for-profit organization in the UK which encourages the regeneration of contaminated land
- Primarily industry-led

#### **Key Elements:**

- CL:AIRE developed a Code of Practice (COP) which allows users to determine if excavated materials are a waste or not.
- If deemed not to be a waste the material can be used without an Environmental Permit or Waste Exemption from the UK Department of the Environment, and requires some self-regulation.
- The COP is applicable to those who commission earthworks and a range of other parties. It is also of interest to land owners and developers.
- The three basic steps of the process are
  1. Ensuring that a **Materials Management Plan** (MMP) is in place for the use of materials on a specific site.

2. Ensuring that the MMP is based on risk assessment, that underpins the Remediation Strategy (for contaminated sites) or Design Statement (for uncontaminated sites);
  3. Auditing the process in a Verification Plan.
- Standards and exceedances for re-use based on direction for UK Environment Agency; CoP has additional technical direction, e.g. testing strategies.
  - A Qualified Person must review evidence related to a proposed use of materials and if it is acceptable sign a Declaration. This is submitted to the UK Environment Agency.
  - CL:AIRE has also developed a Register of Materials website, that helps link source sites (donor sites) with receiver sites.

## QUEBEC

### Implementation Approach:

- Over-arching soil management policy supported by regulations and incentives
- Primarily led by province
- Also has guidance for sampling

### Key Elements:

- Approach strongly based on reuse; Quebec has a variety of regulations affecting the landfilling of soil
- Quebec has developed a **Soil Management Grid**, which provides management options for excavated soils depending on their level of contamination
- Province provides grants to foster contaminated sites clean up and revitalisation.
- Regulation Respecting Contaminated Soil Storage and Contaminated Soil Transfer Stations determines the conditions for the operation of transfer stations and temporary storage sites for contaminated soils

## BRITISH COLUMBIA

### Implementation Approach:

- Primarily led by ministry and industry
- Uses Environmental Protection Act, Contaminated Sites regulation, and a range of guidance

### Key Elements:

- Uses **Contaminated Soil Relocation Agreements (CSRAs)** for applicable soil movements based on size and quality standards; the focus is on contaminated soil and the size threshold is small (5 cubic metres)
- A CSRA is an agreement between the owner of a source site, the receiving site, and the Director of Waste Management, authorizing the relocation of soils from a contaminated site to a suitable deposit site.
- Soils to be relocated need to be adequately characterized to determine re-use options and if the soils will meet the numerical or risk-based environmental quality standards for the receiving site

## NETHERLANDS

### Implementation Approach:

- Strong government oversight, with high level of government investment.
- Implemented through federal government, as well as municipal partners

### Key Elements:

- Has a detailed range of Acts, regulations and protocols to address soil
- Various protocols outline sampling requirements and strategies.
- Soil is an especially valuable resource; legislation and policies are tied to ensuring the sustainable use of soils at all levels of government.

- Has national and private registries for soil matching with substantial government investment in a soil banking system
- To enable reuse, adopts principles such as the “standstill principle”, which requires that the *excess soil* to be placed at then receiving site should be of equal or better quality than the soil that is present at the receiving site, and **soil quality maps** of zones with varying sampling and reuse requirements

## MASSACHUSETTS

### Implementation Approach:

- Requirements largely self-regulated by Licensed Site Professionals (LSPs).

### Key Elements:

- Regulatory approach for sites falling under the Massachusetts Oil and Hazardous Material Release Prevention Act (Chapter 21E sites)
- Has a Similar Soils Provision outlined in a guidance document which intended to prevent the degradation of sites by ensuring that the relocated soil does not increase the risk at the receiving site, since it will be similar to what is already there.
- In May 2015, The Massachusetts Department of Environmental Protection (DEP) released a new **Draft Interim Policy on the Re-Use of Soil for Large Reclamation Projects**, describing an approach for obtaining site-specific approval from the DEP for the reclamation of quarries, sand pits and gravel pits using more than a threshold amount. The policy states the type of information to be submitted to support the issuance of an approval for such projects (e.g. soil management plan).

## 8.3 SUMMARY OF KEY ISSUES HEARD

Below is a list of some of the broader key issues heard through engagement on the EBR review related to *excess soil management* policy. This list is not a reflection of provincial opinion, but rather a listing of some of the broader themes heard through engagement sessions with various stakeholders.

1. **Improved oversight** – issues raised related to general perception that current system is fragmented and requires stronger provincial direction
2. **Standards and direction** – issues raised related to need for clear standards to provide direction on where *excess soil* can be re-used and where it may be a “waste”
3. **Testing** - issues raised related to scope of testing needed, costs and timing
4. **Source site responsibility** – issues raised related to need for generator of *excess soil* (*source sites*) to be more responsible for its end use
5. **By-laws** – issues raised related to difference in approaches being taken in by-laws and need for guidance

6. **Education and outreach** - issues raised related to need for additional technical guidance and education for others (e.g. farmers, public)
7. **Traceability and tracking** – issues raised related to need for mechanisms to ensure *excess soil* is better tracked
8. **Municipal by-laws in conservation authority regulated areas** – issues raised related to the need to remove restriction on by-laws in conservation authority regulated areas
9. **Protecting agriculture** – issues raised related to need to protect agricultural land from potential contamination so as to limit potential impacts on crops and/or livestock
10. **Need to protect sensitive areas and limit environmental impacts** – issues raised related to the need to protect sensitive areas (e.g. Greenbelt, Oak Ridges Moraine, groundwater, source protection, soil erosion and climate change)
11. **Temporary storage** – issues raised related to need for clearer direction on temporary storage of *excess soil*
12. **Planning process** – issues raised related to perception that *excess soil* should be managed early on in the development and planning process
13. **Identification of appropriate *receiving sites*** – issues raised related to need to identify appropriate sites which could be appropriate for *excess soil* re-use
14. **Enforcement** – issues related to the perception that there is a lack of ability to enforce current requirements due to limited capacity and scope of powers
15. **Pilots** – support for pilot projects to incent change and garner buy-in
16. **Information gaps** – issues raised related to the lack of information with respect to the movement of *excess soil* (e.g. quantity, quality, impacts)
17. **Traffic, air, dust, noise, and other social impacts** – issues raised related to the need to minimize impacts like traffic, noise, air, dust, etc.
18. **Liability** – issues raised related to the need to consider financial insurance, security, and monetary penalties
19. **Restrictions on aggregate licenses** – issues raised related to perception that requirement for rehabilitation of aggregate sites are too restrictive

20. **Aerodromes** - issues raised related to whether *excess soil* is being inappropriately brought on to properties who are operating as an aerodrome under federal jurisdiction and as a result are avoiding municipal permits
21. **Normal farm practices** - issues raised about whether some farmers may not be following certain municipal by-laws because they are under the misconception that the by-law does not apply to them
22. **Soil remediation** – support for the need to promote remediation
23. **Flexibility and costs** – support for the need for flexibility in approaches and need to consider costs of *excess soil management* in any future approaches
24. **Smaller projects** - need to recognize that smaller sites have a cumulative impact, but need to be handled differently from larger sites
25. **Municipal capacity** – issues raised related to lack of capacity amongst some municipalities to deal with issues, both technically and financially
26. **Cultural heritage resources** – issues raised related to need to assess impacts to and protect sites of cultural heritage value or interest (e.g. significant built heritage resources, cultural heritage landscapes, or archaeological resources)
27. **Need to better consider *excess soil management* in government projects** – issues related to the need to better consider *excess soil management* in government-funded projects
28. **Need to align provincial policy** – issue related to the need to better align on *excess soil* related management across ministries
29. **Protection of rural areas and rural lens** – issues raised related to the perception that there are policies allowing for the contamination of rural areas at the expense of development and intensification in urban centres.
30. **Qualified persons** - issues raised related to skills, credibility, consistency in opinion, conflict of interest and public confidence.

## 8.4 GLOSSARY OF FREQUENTLY USED TERMS

Below are general definitions for terms used more frequently throughout this document. For the purposes of any future policy or regulation, the province would develop and consult on appropriate definitions for these terms.

**Beneficial re-use:** The placement of *excess soil* at a site that is not a waste disposal site, in a manner that complies with applicable legislation and is environmentally responsible.

**Excess soil:** Soil that has been excavated, typically as a result of construction activities that cannot or will not be reused at the site where the soil was excavated and must be moved off site. In some cases, *excess soil* may be temporarily stored at another location before the *excess soil* is brought back to be used for a *beneficial reuse* at the site where the soil was originally excavated. *Excess soil* does not refer to such materials as compost, engineered fill products, asphalt, concrete, re-used or recycled aggregate product and/or mine tailings, other products, including soil mixed with debris such as garbage, shingles, painted wood, ashes, or other refuse. It could include naturally occurring materials commonly known as earth, topsoil, loam, subsoil, clay, sand or gravel, or any combination thereof.

**Excess soil management:** The management of *excess soil*, including its excavation, placement, hauling, tracking, characterization, and disposal.

**Fill:** Any type of material deposited or placed on land

**Interim site:** Sites owned or controlled by the owner/operator of a *Source site* or *Receiving site*, at which *excess soil* is temporarily stored. The term can also refer to sites that treat, remediate and transfer *excess soil* to other sites for final placement or disposal (defined below as “*soil processing sites*”).

**Receiving site:** Sites that accept and receive *excess soil* and constitute the *excess soil*'s final resting place. The term also includes larger commercial fill operations as well as other sites like agricultural operations or aggregate operations.

**Soil processing site:** Are subsets of *interim sites*, such as a waste disposal site that processes poorer-quality soil to remove or reduce the concentrations of contaminants, such that the soil can be re-used. These sites are subject to approval requirements under Part V of the Environmental Protection Act and are subject to inspections by the Ministry of the Environment and Climate Change.

**Source site:** Sites that generate *excess soil*. They are often construction or development sites or projects where *excess soil* is excavated and must be managed.