

**Ontario East Municipal Conference**

# **Management of Excess Soil - A Guide for Best Management Practices**

Ministry of the Environment and Climate Change  
Central Region  
Operations Division

***September 9, 2014***

# Outline

## **Purpose:**

Provide an overview of *Management of Excess Soil - A Guide for Best Management Practices* and current implementation

## **Presentation Overview**

- Background
- Overview of the Best Management Practices
- Enforcement
- Implementation
- Next Steps

# Background

- Soil is an important resource and every day in Ontario, large amounts of soil are being moved to support development activities.
- The protection and conservation of soil in Ontario is a valuable component of maintaining the environment for present and future generations.
- Excess soil is mainly generated by excavation during construction activities. In most cases this soil is in “excess” to what is needed on the site. This excess soil needs to be managed in a safe and efficient manner off-site.
- The ministry encourages the reuse of excess soil, where appropriate, provided that the use does not have a potential to cause an adverse effect on human health and the environment, or impairment of water quality, as described under the ministry’s acts and regulations.
- While municipalities and conservation authorities are the main permitting agencies for soil receiving sites, to help facilitate the beneficial reuse of excess soil, the ministry has developed Management of Excess Soil - A Guide for Best Management Practices.

# Background

- The guide is intended to assist those managing excess soil, particularly when the soil may be affected by contamination, in preventing and mitigating the potential for adverse effects.
- It is the responsibility of all parties who excavate, transport, receive or store excess soil to ensure that the excess soil being managed in an environmentally sound manner in accordance with all regulatory requirements.
- The guide sets out the ministry's expectations for all those managing soil to support safe and sustainable soil management and reuse while promoting consistency across the province.
- Where environmental concerns are identified at a site, the ministry may assess all activities related to excess soil management and may take appropriate actions within the ministry's legislative mandate.

# Background

- The guide provides best practices on how to handle excess soil beginning at the place where the soil is excavated (a “Source Site”), during the transportation of the excess soil, and through to a site where the excess soil can be reused for a beneficial purpose (a “Receiving Site”).
- The guide also includes operational best practices for temporary storage of excess soil at an intermediate site, between the Source Site and Receiving Site, referred to as a Temporary Storage Soil Site.
- The best management practices will provide essential guidance on many aspects of managing soil.
- The Ministry of the Environment and Climate Change will also undertake a review of the need for additional soil management policy which will build on the best management practices, what the ministry has heard to date, and ongoing engagement with the public, stakeholders and other ministries.

# Overview: Best Management Practices

- Details the ministry's expectations for those who manage excess soil at source sites and large commercial fill receiving sites to help ensure a consistent approach across the province.
- Provides an approach that enables the *continued approval* and permitting by municipalities and conservation authorities, and the flexibility for local decision making and site-specific considerations.
- Can assist municipalities and conservation authorities when issuing permits or approvals, or when establishing new or amended by-laws for managing excess soil.
- Recommends that all activities at sources sites, receiving sites and soil banks are overseen by a Qualified Person (QP – as defined under O.Reg 153/04), including the appropriate soil characterization and quality parameters.

# Overview: Best Management Practices

## *The Best Management Practices Guide:*

- Recommends municipalities, government ministries and agencies incorporate best soil management practices into the tendering process for construction projects, includes determining appropriate receiving sites.
- References complementary industry codes of practice to empower stakeholders to take a leadership role for sustainable soil management.
- The BMP is an operational guidance document intended to address day to day questions/concerns being raised across the province to provide a clear and consistent approach.

# Overview: Best Management Practices

## For Source Sites

- All activities are overseen by a Qualified Person (QP - as defined under O.Reg 153/04).
- Development of a soil management plan that includes:
  - Appropriate characterization of the site prior to soil excavation;
  - Site plan requirements to identify locations and depth of soil to be excavated, along with soil volumes and chemical composition from specific areas of the site prior to excavation.
- Documentation signed by a QP with appropriate and representative soil analysis, confirming the soil quality is acceptable for the intended receiving site – consistent with a fill management plan at the receiving site.
- Detailed record keeping requirements, including documentation that confirms receipt at the intended receiving site.
- Ensuring that documentation regarding past site assessments are available to the QP at the receiving site.



# Overview: Best Management Practices

## For Receiving Sites

- All activities are overseen by a Qualified Person (QP - as defined under O.Reg 153/04).
- Establishment of pre-fill conditions at the site.
- Public consultation prior to operations.
- Development of a fill management plan:
  - Applicable permits/zoning (ie: municipalities, conservation authorities, other ministries where applicable);
  - Appropriate soil quality parameters for soils to be received at the site;
  - Characterization and pre-approval of all source site locations prior to accepting any soil;
  - Dust and noise controls; and
  - Traffic and transportation management.
- Detailed record keeping for tracking of all incoming loads of soil.

# Overview: Best Management Practices

## For Receiving Sites (cont'd)

- Site signage and security
- Public notification to the adjacent landowners
- Stormwater management
- Erosion controls
- Audit sampling protocols
- Soil placement/segregation plan
- Contingency plans:
  - to identify actions to be taken in the event that audit sampling or other information identifies concerns with soil quality from a source site;
  - may include the need for groundwater monitoring.
- Consider voluntary posting of Financial Assurance prior to operation.

# Overview: Best Management Practices

## Summary of Best Management Practices for Temporary Soil Banks

- Paved or impermeable surfaces.
- Stormwater management plan.
- Erosion/run-off controls.
- Dust control plan.
- Limits to stockpile heights based on site location and surrounding land use.
- Site signage and security.
- Hours of operation - with reference to local by-laws.
- Transportation plans for trucks entering and leaving the site.
- Appropriate truck cleaning areas.
- Daily site inspections.
- Notification to surrounding land owners.
- Record keeping requirements.
- Groundwater monitoring considerations for source water protection areas or areas of potable groundwater.
- Audit sampling protocols for incoming soils as determined by a QP.
- Consideration for voluntary posting of Financial Assurance as the ministry may require Financial Assurance on a case-by-case basis at the discretion of the Regional Director.

# Overview: Out of Scope

- The Soil Best Management Practices document is not intended to:
  - Address the continued use of the Brownfields standards (O.Reg. 153/04) outside of their intended scope and applicability;
  - Apply to small scale construction activities (including minor roadwork), or construction activities at single-dwelling residential properties;
  - Govern material excavated from aggregate pits and quarries or other material that does not meet the definition of soil found in O. Reg 153/04; or
  - Set criteria or fill quality standards, which would apply at the receiving sites.

# Enforcement

- All soil management activities brought to the ministry will be assessed on site specific information (i.e., case-by-case basis).
- Ministry staff will examine each situation brought forward to understand how the guidance was applied or how it can be applied to the specific site.
- Where environmental concerns arise, ministry staff will review and assess the information available.
- If the assessment reveals compliances issues with the management activities, the ministry will initiate abatement measures to address these situations .
- Sites that are out of the Ministry's jurisdiction will be contacted and consulted.

# Implementation

- Focus on outreach and raising awareness of the best management practices.
- Continued municipal engagement and encouragement and support for municipal pilot activities.
- Look for opportunities to showcase sustainable soil management projects in the province.
- Facilitate creating additional guidance materials required to support implementation.
- Provide outreach and education to organizations and sectors upon request.
- Monitoring usage and uptake of the best practices through inspection activities.

# Next Steps

- The ministry recognizes the complex challenges that soil movement in the province pose to municipalities, industry, the public and the environment.
- The Best Management Practices are intended to provide essential guidance on many aspects of soil management and to evaluate if future actions are needed.
- The ministry will continue to monitor use of the Best Management Practices in the stakeholder community.
- The ministry will continue to support best soil management practices.

# Next Steps

The ministry:

- encourages municipalities to continue to consider local solutions to address soil management issues.
- will undertake a review of the need for additional soil management policy that will build on the best management practices, what the ministry has heard to date, and ongoing engagement with the public, stakeholders and other ministries.
- will seek partnerships with associate ministries to support implementation.



**Thank You**

**Questions ?**