

Proposed Best Management Practices for Soil Management in Ontario

Canadian Brownfields Network

Jonathan Fernandes
Ministry of the Environment
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Background

- Large amounts of soil are being moved to support significant economic activities throughout Ontario.
- Excess soil is mainly generated by excavation during construction activities. In most cases this soil is in “excess” to what is needed at the site and must be managed off-site.
- Excess soil must be managed in a sustainable manner in order to maintain a healthy economy and a healthy environment.
- A number of provincial and local authorities have regulatory oversight over soil management.

Overview: Best Management Practices

- The ministry encourages the reuse of excess soil as fill where appropriate, provided that:
 - the material is not a waste; and
 - the use of the excess soil does not have a potential to cause an adverse effect or impair water quality, as described under the ministry's Acts and Regulations.
- To help facilitate the beneficial reuse of excess soil, the ministry has drafted a guidance document entitled: "Best Management Practices for Soil Management in Ontario" (BMP).

Overview: Best Management Practices

- The Best Management Practices guide was drafted based on feedback from a number of stakeholders, including:

Municipalities

Developers

Professional Associations

Road Building Associations

Waste Associations

- Initial consultations conducted in May 2011 included the Municipal Engineers Association and a number of municipalities who received a copy of the document, including:

Clarington*

Lexbridge*

Scugog*

Bellville

Brantford

Toronto*

Uxbridge*

London

Region of Waterloo*

* = attended the June 29, 2011 session

Overview: Best Management Practices

- The ministry has also participated on soil management roundtables hosted by the Town of Uxbridge which include municipal and conservation authority representatives from Durham and the surrounding areas.
- The ministry has also been involved with some municipalities, such as Scugog, Clarington and New Tecumseth, regarding site-specific soil management issues.
- The Best Management Practices approach enables continued approval and permitting of fill activities by municipalities and conservation authorities, and the flexibility for local decision making and site-specific considerations.
- The guidance details the ministry's expectations for those who manage excess soils to help ensure a consistent approach across the province.

Overview: Best Management Practices

- Prevention of adverse effects and protection of environmental quality.
- Focus on commercial construction projects and commercial fill operations.
- Supports the reuse of excess soils at receiving sites for alteration, re-grading, and filling in excavations (i.e. beneficial re-use).
- Guidance for reuse of soil specific to civil construction and other commercial construction projects (i.e. roadways, sewers/watermains, parking lots).
- Assists municipalities and conservation authorities that have existing by-laws or are considering new by-laws.
- Details expectations for the management of soil source sites, large fill receiving sites, and
- Introduces the concept of “soil banking” where soil can be temporarily stored for beneficial reuse.

Overview: Best Management Practices

- It is the responsibility of all stakeholders who generate, haul or receive excess soil to ensure that the excess soil is being managed in an environmentally sound manner in accordance with all regulatory requirements.
- The overall concepts in the guide can set the basis for additional compliance actions by the ministry where necessary.

Key Principles: General

- The proposed Best Management Practices document provides guidance on five areas:
 - soil source sites;
 - soil receiving sites;
 - temporary soil banking;
 - placement of soil at civil construction and commercial development projects; and
 - procurement practices for projects that include soil management.
- By focusing on these five areas, the ministry can promote the effective and sustainable management of excess soil for beneficial reuse, while ensuring the prevention of adverse effects and protection of the environment.

Key Principles: Guidance 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 which includes:
 - appropriate characterization of the site prior to soil excavation;
 - site plan requirements to identify locations and depth of soils to be excavated, along with soil volumes and chemical composition from specific areas of the site prior to excavation.
- Documentation signed by a Qualified Person with appropriate and representative soil analysis for soils to be removed, 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 on soil which leaves the site and confirms receipt at the intended receiving site.
- Ensuring that documentation regarding past site assessments are available to the Qualified Person at the receiving site.

Key Principles: Guidance for Receiving Sites

- All activities are overseen by a Qualified Person (QP - as defined under O.Reg 153/04).
- Establish pre-fill conditions at the site.
- Public consultation prior to the operation of a commercial fill site.
- Development of a Fill Management Plan:
 - applicable permits/zoning (i.e., 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 acceptance of any soil;
 - dust and noise controls;
 - traffic and transportation management.
- Detailed record keeping for tracking of all incoming loads of soil

Key Principles: Guidance for Receiving Sites

- Site signage and security
- Public Notification to the adjacent landowners
- Stormwater management
- 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
- Consideration for voluntary posting of Financial Assurance prior to operation

Key Principles: Guidance for Soil Banks

- Paved or impermeable surfaces
- Stormwater management plan
- 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
- Consideration for voluntary posting of Financial Assurance (ministry may require Financial Assurance on a case-by-case basis at the discretion of the Regional Director)

Key Principles: Guidance for Procurement

- Recommends municipalities, government ministries and agencies incorporate best soil management practices into the tendering process for large scale construction projects.
- The tender should include a requirement for a soil management plan and that the receiving site is appropriate based on their fill management plan.
- Municipalities are encouraged to consider these best practices when issuing permits or approvals, or when establishing by-laws for managing excess soil.

Revisions to the Best Management Practices

- General wording changes to promote greater clarity based on stakeholder feedback.
- Additional wording on what is considered “beneficial” reuse options.
- Clarity around the types of materials activities that are out of scope of the Best Management Practices.
- Reference to complementary industry codes of practice.
- Addition of a section related to civil construction projects.

Out of the Scope

- The Soil Best Management Practices document is not intended to:
 - resolve 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.

Next Steps

- The ministry has re-circulated the Best Management Practices to various stakeholders.
- Written comments can be provided to the ministry until June 30, 2012 to:
 - Jonathan.Fernandes@ontario.ca
- On-going consultation with the Association of Municipalities of Ontario and Conservation Ontario.
- Consultation with other provincial ministries, including Ministry of Natural Resources, Ministry of Transportation and the Ministry of Municipal Affairs and Housing.
- The ministry will continue to participate with stakeholder groups, associations and forums.