

Management of Excess Soil from Large Redevelopment and Construction Projects

Date:	November 7, 2013
To:	Planning and Growth Management Committee
From:	Chief Planner and Executive Director, City Planning Division
Wards:	All
Reference Number:	P:\2013\Cluster B\PLN\PGMC\PG13071

SUMMARY

This report responds to a request from City Council to report on mechanisms to incorporate mandatory soil management plans for large redevelopment and construction projects generating excess soil requiring off-site management. Best practices for the management of excess soil are described. The City does not have any specific authority to require soil management plans under existing legislation.

The report makes recommendations to ensure that excess soil is managed in a safe and consistent manner across the province and to consider including soil management plans prepared by a Qualified Person in the Tier 2 Toronto Green Standard and for City-owned projects generating excess soil requiring off-site management.

The City Solicitor is providing a separate confidential report on potential legal issues associated with City regulation of excess soil.

RECOMMENDATIONS

The Chief Planner and Executive Director, City Planning Division recommends that:

1. City Council reaffirm its previous request to the Ministry of the Environment to enact regulations to ensure that excess soil placement is provincially regulated in

a manner that is consistent across the province and in accordance with the provisions of the *Environmental Protection Act*.

2. City Council request that Soil Management Plans prepared by a Qualified Person for large redevelopments generating excess soil requiring off-site management be considered for the next review of the Tier 2 Toronto Green Standard.
3. City Council request the Deputy City Manager Cluster B to consult with affected Divisions on the feasibility and implications of a policy to require soil management plans prepared by a Qualified Person for large City-owned projects generating excess soil requiring removal from the site and report back to the Executive Committee.

Financial Impact

There are no financial impacts associated with receipt of this report.

The Deputy City Manager and Chief Financial Officer have reviewed this report and agree with the financial impact information.

DECISION HISTORY

Notice of Motion MM37.25 adopted by City Council at its meeting on July 16, 17, 18 and 19 contained the following requests:

1. City Council request the Chief Planner and Executive Director, City Planning, in consultation with appropriate staff, to report to the October 22, 2013 Planning and Growth Management Committee meeting on the appropriate mechanism in which to incorporate a mandatory Material Management Plan requirement, as part of any major excavation or development/building permit approval so as to mitigate illegal dumping of materials from Toronto development projects within other GTA municipalities and to ensure excess fill materials are managed in a sustainable and legislatively accountable manner.
2. City Council requests that the report contain an examination of available guidelines, including:
 - a. The material management guidelines from CLAIRE (Contaminated Land: Applications in Real Environments) at <http://www.claire.co.uk>
 - b. “Best Management Practices for Handling Excess Soils in Ontario” by the Residential and Civil Construction Alliance of Ontario, November 2012.

- c. The draft Ministry of the Environment guidelines “Soil Management – A Guide for Best Management Practices”, and available comments.

And a review of the process in other jurisdictions such as:

- d. The Soil Management Plan of the New Jersey – New York Gas Pipeline Expansion Project (<http://www.yesgaspipeline.org>).
- e. Soil Risk Management Plan by Geomatrix for Terminal One Site in Richmond California (<http://www.ci.richmond.ca.us/DocumentCenter/Home/View/8360>).

At its meeting on October 2, 3 and 4, 2012, City Council considered the August 27, 2012 report from the Executive Director, Technical Services, titled Protecting Toronto's Moraine-Sourced Groundwater, and adopted the following recommendation:

1. City Council request the Ministry of the Environment to enact regulations to ensure that excess soil placement is provincially regulated in a manner that is consistent across the province and in accordance with the provisions of the *Environmental Protection Act*.
<http://www.toronto.ca/legdocs/mmis/2012/pw/bgrd/backgroundfile-49651.pdf>

ISSUE BACKGROUND

Excess material is generated by excavation from large redevelopment and construction projects. In most cases, this material cannot be reused on site and must be managed off-site. Excess material that meets the definition of waste under Ontario Regulation 347 (the "Waste Management Regulation") must be managed in accordance with Part V of the *Environmental Protection Act*. Excess soil that meets the definition of "inert fill" under Ontario Regulation 347 is exempt from Part V of the *Environmental Protection Act*. Subject to municipal site alteration bylaws under the *Municipal Act* or regulations under the *Conservation Authorities Act*, inert fill can generally be reused at any location. There are no regulations that address excess soil that does not meet the definition of inert fill.

In 2004, requirements were put in place through the *Environmental Protection Act* and Ontario Regulation 153/04 to address the cleanup and redevelopment of former industrial and other sites that are potentially contaminated (also referred to as brownfield sites). Under these legislative and regulatory requirements, and subsequent amendments, a record of site condition (RSC) must be filed with the Ministry of the Environment's Brownfield's Environmental Site Registry when a property changes to a more sensitive use. The RSC must show that the soil on the property meets the applicable standards. Since 2009, Toronto Building has received a total of 711 RSC submissions. The legislation has helped to encourage the cleanup and redevelopment of former industrial sites in Toronto but it does not address how excess soil, which does not meet the definition of inert fill and is removed from the site, should be managed.

The Ontario Ministry of the Environment encourages excess soil from redevelopment and construction sites to be managed in a safe and sustainable manner in order to maintain a strong economy and protect the environment. It is not practical or cost effective to dispose of large amounts of excess soil in landfills. Excess soil can be reused provided it does not have potential to cause adverse effects on human health and the environment or impairment of water quality as described in the Ministry's Acts and regulations. The Ministry has developed a proposed guideline titled "Soil Management – A Guide for Best Management Practices" to promote best management practices and consistency across the province in the management of excess soil. The guideline is focused on excess soil generated from large construction and redevelopment projects sites taken to commercial fill operations. Excess soil is defined in the guideline as unconsolidated naturally occurring mineral particles, and other naturally occurring material, that are smaller than 2 mm and which are free of odours, visible staining or debris such as garbage or other waste.

The proposed guideline was posted for public review on the Environmental Registry in November 2012.

http://www.downloads.ene.gov.on.ca/envision/env_reg/er/documents/2012/011-7523.pdf.

A revised guideline, reflecting public comments, is expected in the fall of 2013. As of the date of this report, the revised guideline has not been posted on the Environmental Registry.

The Ministry's draft guideline encourages the use of best practices for the management of excess soil. A best practice can be defined as a method or technique that consistently shows superior to those achieved with other means, and is used as a benchmark. The draft guideline describes best practices from both source sites, where soil is generated, and receiving sites, where soil is reused. Best practices for source sites include:

- preparation of a soil management plan (also referred to as a materials management plan) by a Qualified Person to ensure that soil is appropriately characterized;
- identification of receiving sites that are appropriate for the type of excess soil being moved; and
- a tracking system to document the movement of excess soil from the source site to the receiving site.

Regulation 153/04 defines Qualified Person (QP) and provides specific professional and legal requirements. Best management practices for receiving sites include:

- a detailed fill management plan prepared by a QP including appropriate standards for the quality of material to be received; and
- an auditable record keeping system for tracking incoming soil.

The draft guideline is intended to apply to large-scale redevelopment and construction projects because of the large amount of material to be managed and the potential for contaminants. It is not intended to apply to small-scale construction such as excavation at single-dwelling residential properties or activities associated with small-scale road work

or sewer and water main construction where small quantities of excess soil are being managed. The guideline does not define large-scale or small-scale. Municipalities are encouraged to consider best management practices when tendering contracts that include the movement of excess soil and when issuing permits or approvals for placement of excess soil within their jurisdictions.

The best management practices outlined in both the MOE guideline is similar to approaches used in other jurisdictions. The organization CLAIRE (Contaminated Lands: Applications in Real Environments) in the United Kingdom <http://www.claire.co.uk> has developed a joint government/industry voluntary Code of Practice which includes the preparation of a materials management plan by a QP.

The Residential and Civil Construction Alliance of Ontario (RCCAO) has developed a "Best Management Practices for Handling Excess Construction Soils in Ontario" http://www.rccao.com/news/files/RCCAO_NOV2012.pdf in consultation with the MOE which includes the preparation of a soil management plan and review by a QP. The RCCAO best management practice is intended to complement the Ministry's draft soil management guideline, clarify uncertainties related to management of excess construction soil and provide guidance for management of excess soil at smaller municipal and construction projects.

COMMENTS

Excess soil must be managed in a safe and sustainable manner in order to maintain a strong economy and protect the environment. Soil reuse is encouraged to avoid unnecessary disposal of large volumes of excess soil in landfills but there are no regulations that apply to soil movement. The Ministry of the Environment has prepared a draft soil management guideline to encourage reuse of excess soil across the province by identifying best practices for both generating and receiving sites. Guidelines and best practices are not enforceable and the Ministry has indicated that it does not intend to introduce new regulations that apply to soil movement as part of the best management practices document. The lack of clear and enforceable regulations has led to confusion about reuse of excess soil and to concerns from some municipalities and conservation authorities outside of Toronto about the quality of excess soil being placed at fill sites in their jurisdictions.

At present, reuse options for excess soil from Toronto are limited to placement at fill receiving sites located outside the city boundary. These sites are subject to MOE waste regulations and fill placement bylaws in the receiving municipality. Some of these bylaws include provisions to address the quality of soil that can be placed. In the past, excess soil from Toronto was used to create new landforms along the waterfront. There may be future opportunities for the reuse of excess soil provided it meets applicable standards at approved waterfront landforms. Environmental Assessments are underway for a Humber Bay Islands landform and an Ashbridges Bay landform. A third Environmental Assessment is underway for a landform on the Toronto Mississauga

border. There may be future opportunities for soil reuse in the Port Lands to raise the grade of lands and construct landforms, as identified in the Don Mouth Naturalization and Port Lands Flood Protection Project Environmental Assessment which is being undertaken to naturalize and mouth of the Don River and provide flood protection.

Management of excess soil moved across jurisdictions is a province-wide issue and responsibility of the Ministry of the Environment to put rules in place to ensure that excess soil is managed in a safe and consistent manner. A regulation for reuse of excess soil from redevelopment and construction sites would provide clear, consistent rules, ensure an even playing field and facilitate consistent enforcement across the province. City Council has previously requested the Ministry of the Environment to enact regulations as the only way to ensure that excess soil placement is managed in a safe and consistent manner across the province in accordance with provisions of the *Environmental Protection Act*.

This report recommends that City Council reaffirm its request to the Ministry of the Environment. In the absence of regulation, City Council has requested that City Planning, in consultation with appropriate staff, explore options for requiring soil management plans for large redevelopment and construction projects in Toronto in order to ensure that excess soil is managed in a sustainable and legislatively accountable manner.

The following Divisions were consulted in the preparation of this report: City Manager's Office, Engineering and Construction Services, Buildings, Toronto Water, Transportation, Parks Forestry and Recreation and Office of the Chief Corporate Officer.

Soil Management Plans for Large Private Redevelopment Projects

Municipalities do not have specific authority to require soil management plans or regulate fill placement outside their municipal boundaries.

Building Code Act

Under the *Building Code Act, 1992* the Chief Building Official must issue a building permit if the application for a permit complies with the *Building Code Act*, the Building Code and any other applicable law. The Building Code contains a list of legislation that is applicable law under the *Building Code Act, 1992*. Section 168.3.1 of the *Environmental Protection Act* with respect to the construction of a building to be used in connection with a change of use of a property is listed in the Building Code's definition of applicable law.

An applicant must provide the building official with proof that a RSC has been filed in order to obtain a building permit for construction on a property which is changing to a more sensitive use. Provincial guidelines or draft guidelines, including the Ministry of the Environment's draft Soil Management guideline are not applicable law. As a result, the Chief Building Official does not have the authority to require a soil management plan prior to issuing a building permit.

City of Toronto Act

There are no specific provisions in the *City of Toronto Act* that allow the City to require soil management plans. The Act contains provisions that allow the City to regulate fill placement within the City of Toronto boundaries but not outside. Other municipal jurisdictions have the same authority to pass fill placement bylaws under the *Municipal Act*.

Planning Act

The *Planning Act* does not contain any specific provisions requiring the submission of a soil management plan, nor does the MOE's draft Soil Management Guideline suggest that a municipality may use its development approval authority under the *Planning Act* to require a soil management plan.

The City Solicitor is providing a confidential report on potential legal issues to accompany this report.

Toronto Green Standard

The Toronto Green Standard (TGS) is a two-tier set of performance measures with supporting guidelines related to sustainable site and building design for new development. Tier 2 is the voluntary higher level of environmental performance. Applicants who meet Tier 2 may be eligible for a development charge refund. Revisions to the Toronto Green Standard will take effect in January 2014. A further amendment could be made to Tier 2 standard to include the voluntary preparation of a soil management plan by a QP.

Soil Management Plans for Large City-Owned Projects

The Ministry of the Environment's draft guideline recommends that those who engage in procuring services requiring large-scale soil management, such as municipalities and other government ministries and agencies, consider incorporating best management practices, including soil management plans, when tendering contracts that include the movement of excess soil.

Excess soils are costly to deal with and can create environmental problems if not properly managed. The City's current procurement practice requires that contractor's comply with all current applicable law (which includes proper disposal of waste materials under the *Environmental Protection Act*) but does not specifically require the preparation of a soil management plan by a QP. While not required by regulation, the City should ensure that its procurement practices and procedures for the management of excess soil do not expose the City to unnecessary liability. The City Solicitor's report addresses these issues. The City should review the feasibility and implications of requiring soil management plans prepared by a QP as part of procurement practices for large city-owned projects generating excess soil requiring off-site management.

CONCLUSIONS

Excess soil requiring off-site management is generated from large redevelopment and construction activities in Toronto. The Ministry of the Environment has developed a draft guideline to help ensure consistent and sustainable management of excess soil across the Province at both source and receiving sites. The Ministry has not made a regulation or finalized the guideline. Under the draft guideline, those who generate, haul and receive excess soil are responsible to ensure that it is managed in an environmentally sound manner in accordance with the regulations. The lack of clear, enforceable regulations has led to confusion about the reuse of excess soil and to concerns from some municipalities and conservation authorities located outside of Toronto about the quality of excess soil being placed at fill sites in their jurisdiction.

Municipalities do not have any specific authority to require soil management plans as part of building permits or development applications and cannot enforce soil movement across jurisdictional boundaries. The Ministry of the Environment has the jurisdiction and authority to enact regulations to ensure that excess soil is managed in a consistent manner across the province. The City of Toronto can include preparation of soil management plans by a QP as part of the voluntary Tier 2 Toronto Green Standard. The City can also review the feasibility and implications of a policy requiring soil management plans prepared by a QP, as recommended in the Ministry's draft Soil Management guidelines, for large city-owned projects involving off-site management of excess soil.

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SIGNATURE

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