



## STAFF REPORT ACTION REQUIRED

### Process to Require Notification Regarding Disposal of Excess Soil from Large Private Redevelopment Projects

<b>Date:</b>	May 2, 2014
<b>To:</b>	Planning and Growth Management Committee
<b>From:</b>	Chief Planner and Executive Director, City Planning Division
<b>Wards:</b>	All
<b>Reference Number:</b>	P:\2014\Cluster B\PLN\PGMC\PG14051

#### **SUMMARY**

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This report responds to a request from City Council to report on a process to require developers in the City of Toronto to identify the location and municipality where soil from excavation sites will be disposed, a notification system to inform host municipalities of a developer's intent and the feasibility of creating a temporary soil storage site or "soil bank" in the City of Toronto.

The report discusses issues and opportunities around the management of excess soil and identifies steps that the City is taking to improve the management of excess soil in Toronto. It is proposed that stakeholders be consulted on a process that would request rezoning applicants to submit an Excess Soil Disposal Declaration prior to approval of Bills in Council. The Declaration would confirm that excess soil from the development site has been approved for placement at an appropriate receiving site in accordance with Ministry of the Environment's best management practices.

## **RECOMMENDATIONS**

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

1. Planning and Growth Management Committee direct the Chief Planner and Executive Director, City Planning Division to consult with stakeholders regarding incorporating an Excess Soil Disposal Declaration as part of rezoning applications and report back to Planning and Growth Management Committee in the first quarter of 2015 on the results of the consultation and a final recommended process.

### **Financial Impact**

There are no financial impacts associated with the receipt of this report. The Deputy City Manager and Chief Financial Officer has reviewed this report and agrees with the financial impact information.

## **DECISION HISTORY**

City Council on December 16, 17 and 18, 2013, adopted the following:

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 1 or 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 and projects undertaken by City of Toronto Agencies and Corporations generating excess soil requiring removal from the site and report back to the Executive Committee.
4. City Council request the Deputy City Manager, Cluster B to report back to the Executive Committee on the feasibility of creating of a "Soil Bank" similar to already existing models in the Netherlands and other jurisdictions such as Peel Region.
5. City Council request the Deputy City Manager, Cluster B to report in the Spring 2014 on a process to require all developers to identify the location and

municipality where the soil from an excavation site will be dumped through a negotiated construction management plan.

6. City Council request that the process also provide for a notification system to inform host municipalities of a developer's intent.
7. City Council adopt the confidential instructions to staff in Confidential Attachment 1 to the report (November 20, 2013) from the City Solicitor.
8. City Council direct that the recommendations contained in Confidential Attachment 1 to the report (November 20, 2013) from the City Solicitor be made public if City Council directs the requirement of Material Management Plans and the rest of the legal advice contained in Confidential Attachment 1 to the report (November 20, 2013) from the City Solicitor remain confidential as it pertains to solicitor-client privilege.  
<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.PG29.11>

## ISSUE BACKGROUND

At its meeting on December 16, 17 and 18, 2013, Council considered a report dated November 7, 2013 from the Chief Planner titled, *Management of Excess Soil from Large Redevelopment and Construction Projects*. The report responded to a request from City Council to report on possible mechanisms to incorporate mandatory soil management plans for large redevelopment and construction projects generating excess soil requiring off-site management. The report reviewed the Ontario Ministry of the Environment's (MOE) draft Guideline *Soil Management – A Guide for Best Management Practices* dated November 2012 and municipal authority to require Soil Management Plans or regulate the placement of fill outside their municipal boundaries. The report concluded that municipalities do not have any specific authority to require Soil Management Plans or regulate fill placement outside their municipal boundaries and recommended that the MOE enact regulations to ensure that excess soil is managed in a safe and consistent manner across the province and that the City consider including Soil Management Plans prepared by a Qualified Person in the Tier 2 Toronto Green Standard and for large City-owned projects generating excess soil requiring off-site management. The City Solicitor provided a separate confidential report on potential legal issues associated with City regulation of excess soil.

In January 2014, the MOE released the final *Management of Excess Soil - A Guide for Best Management Practices* (the Guideline). <http://www.ebr.gov.on.ca/ERS-WEB-External/displaynoticecontent.do?noticeId=MTE3ODk1&statusId=MTgxODcw&language=en> The final Guideline is very similar to the draft Guideline. The overarching premise is that soil is an important resource. The Guideline encourages the beneficial reuse of excess soil in a manner that avoids adverse impact to human health or the environment and provides best management practices for "Source Sites", "Receiving Sites" and "Temporary Soil Storage Sites" (formerly referred to as "Soil Banks") to assist

in managing excess soil in a manner that is sustainable and protects the environment. The Guideline does not address issues that were raised in the November 13, 2013 report from City staff concerning the management of excess soil moved across jurisdictional boundaries. As a result, there continues to be a policy and regulatory gap in this area.

There is growing concern in rural areas that receive fill material about the negative impacts of large-scale commercial fill operations within their jurisdictions, including, dust and noise emissions, heavy truck traffic use of smaller roads, public safety, potential impacts to soil and groundwater, and transformation of agricultural and environmentally sensitive lands. Many of these large-scale commercial fill operations are located within the Oak Ridges Moraine and the Greenbelt Protected Countryside. These areas are important to the environmental and social well being of the City of Toronto because they contribute to the quality and quantity of surface and groundwater and help protect and improve air quality in the City of Toronto. They also contain recreational resources used by residents of the City of Toronto and provide agricultural products that are consumed by residents of the City of Toronto.

## **COMMENTS**

Most excess soil in Toronto is generated from water and transportation infrastructure projects and from excavation of deep foundations and underground parking associated with large development projects. Currently, the City of Toronto and Metrolinx have plans for infrastructure that are anticipated to generate significant volumes of excess fill. Based on current capital program planning forecasts, Toronto Water will generate an estimated 1,700,000 cubic metres of excavated soil over the next 10 years from tunnelling and underground storage structures. It is estimated that TTC and Metrolinx projects will generate approximately 2,000,000 cubic metres of excess soil from the Eglinton Crosstown project and the Finch and Sheppard LRTs over the next 5 to 10 years. Information is not available for volumes of excess soil that may be generated by development projects.

In the past, excess soil from development and public infrastructure projects in Toronto was used to create landforms along the waterfront such as the Leslie Street Spit. At present, there are limited options for reusing excess soil in the Toronto area and most excess soil is transported to receiving sites outside the City boundary. Many contractors working in the City are experiencing difficulty finding suitable disposal sites. This situation is not unique to the City of Toronto as neighbouring municipalities are facing the same issues finding fill disposal options. There are several projects under consideration in Toronto which, if approved, will reduce the need to export clean fill from the City of Toronto over the coming decades including new waterfront landforms and the proposed Don Mouth Naturalization and Port Lands Flood Protection Project.

Two new waterfront landforms are being considered which, if approved, could create an opportunity for lake-fill disposal of approximately 2 million cubic metres of clean excess soil. In the area of Ashbridges Bay, a waterfront landform is proposed to support the

construction of storm water management facilities and a storm water wetland immediately south of the Ashbridges Bay Wastewater Treatment Plant. A Class Environmental Assessment is currently underway. Pending approval of the Environmental Assessment, fill placement could begin as early as in 2015. Further west at Sunnyside Beach, a beach protection landform is proposed to improve water quality at Sunnyside Beach and protect the shoreline from erosion. A scoping study is currently underway. A third project is being considered along the Scarborough waterfront. The Scarborough Waterfront Access Plan will create a continuous public access route along the waterfront, improve shoreline protection and provide aquatic habitat restoration and natural heritage improvements between Bluffer's Park and East Point Park. A study has not been initiated and fill requirements are not known.

A waterfront landform is also proposed on the border of Toronto and Mississauga to create a new waterfront park that will provide public access to and ecological enhancements of the eastern Mississauga waterfront between Marie Curtis Park and Ontario Power Generation Lakeview site. The draft Environmental Assessment has been submitted to the MOE and, if approved, fill placement could begin as early as 2015. Most of the fill for this project is anticipated to come from public infrastructures projects in the Region of Peel and the City of Mississauga however, if supply rates from public projects are lower than anticipated, clean fill from local private developers will be accepted.

There will be a need to raise the grades and construct landforms as part of the Don Mouth Naturalization and Port Lands Flood Protection over the next 10 years. Approximately 640,000 cubic metres of fill will be needed in the area of Essroc and Cousins Quay and for the realignment of Cherry Street and reconstruction of Commissioners Street. It is anticipated that work could begin as early as 2017. In later years, fill will also be required for construction of the valley wall feature between the Don Roadway and Saulter Street and between Lakeshore Boulevard and the rail corridor. Some of this material may come from areas that will be excavated if it is suitable for reuse. In addition, it is anticipated that fill will be needed to raise grades by 1.5 - 2.0 m across the lower Don Lands to reduce the risk of flooding. At this time, it is not known what volumes will be required or over what the timeframe.

If these projects proceed over the next decade, there may be an opportunity to put excess soil from development and public infrastructure projects to beneficial use at one of these locations. Using fill locally will divert material from large-scale commercial fill operations located in rural areas outside Toronto and reduce the negative impacts associated with transporting soil long distances. Nevertheless, due to uncertainty associated with the approval and timing of these projects and the difficulty of matching supply and demand rates, it is likely that excess soil will continue to be exported outside the City of Toronto at least in the short term. Possible approaches that would assist in management of excess soil requiring off-site disposal which is generated within Toronto are discussed below.

## **Approaches to Excess Soil Management in Toronto**

The MOE Guideline provides best management practices for Source Sites and Receiving Sites and encourages owners/operators to consider adopting these best management practices. Consistent with the MOE Guideline, City Divisions are looking into the feasibility and implications of a policy to require Soil Management Plans for large City-owned projects and projects undertaken by City Agencies and Corporations generating excess soil requiring removal from the site. The Deputy City Manager, Cluster B will be reporting to Executive Committee on this policy in 2015. As part of a Council request, the City Planning Division will consider including Soil Management Plans prepared by a Qualified Person for large developments generating excess soil requiring off-site management during the next review of the Toronto Green Standard.

At its meeting on December 16, 17 and 18, 2013, City Council directed staff to develop a process to require all developers to confirm that excess soil to be removed from the site will be disposed at an appropriate location through a negotiated construction management plan. In response to this request, City staff are proposing a process which would request large rezoning applications to submit an Excess Soil Disposal Declaration prior to approval of the zoning bylaw amendment. The request would apply to all rezoning applications that have gross floor area (GFA) in excess of particular amount and one or more levels of underground parking. The threshold size of building will be determined during consultation with stakeholders about the overall concept and process to be followed. It is anticipated that an Excess Soil Disposal Declaration would be required to be submitted to the Chief Planner prior to passing of Bills in Council to amend the rezoning bylaw for the project. This timing is necessary as it is not known until the end of the approval process the amount and type of excess that may be generated. The Declaration would be signed by a Qualified Person and would confirm that excess soil from the excavation site has been approved for placement at an appropriate location in accordance with MOE best management practices. A draft of the Declaration will be prepared for the consultation with stakeholders for feedback purposes.

The proposed approach is consistent with the MOE Guideline. It would apply to rezoning projects that are mostly likely to generate large volumes of excess soil and where there is potential for the soil to be affected by contamination. It would not apply to small, low-risk construction activities such as single dwelling residential properties. The Declaration would be signed by a Qualified Person. The MOE Guideline encourages site owners/operators to retain the services of a Qualified Person to develop a soil management plan. Credentials for Qualified Persons are set out under Ontario Regulation 153/04 and include professional engineers, professional geoscientists, certified engineering technicians and technologists, architectural technologists, professional agrologists and chartered chemists. The Declaration would request the type of information that site owners/operators are encouraged, by the MOE Guideline, to have at a time in the development process when applicants are most likely to be assembling this type of information for project implementation purposes. The proposed approach could be implemented at no additional cost to the City. As part of the protocol for this process,

the City would rely on the Declaration signed by the Qualified Person and would not conduct its own independent review.

Applicants will be informed about the need to submit the Declaration early in the rezoning process. In addition, as a way to encourage the reuse of excess soil within Toronto, information on Receiving Sites located within or immediately adjacent to the City of Toronto will be provided to applicants. The names of Receiving Sites will be obtained from conservation authorities and agencies such as Waterfront Toronto.

Prior to recommending that the Declaration request be implemented, this report recommends that the Chief Planner consult with stakeholders including, the Residential and Civil Construction Alliance of Ontario, BILD, large developers and conservation authorities on the Declaration requirement and report back to the Planning and Growth Management Committee in the first quarter of 2015 with the results of the consultation and a recommended approach.

### **Temporary Soil Storage**

In some situations, excess soil may be stored temporarily before it can be reused at another location. Such locations are referred to as Temporary Soil Storage Sites (sometimes referred to as "Soil Banks"). In Ontario, Temporary Soil Storage Sites are generally intended to be short term and project-based. Temporary Soil Storage Sites contemplated under the MOE Guideline would only be established for a specified predetermined period of time (e.g., generally less than 2 years) and would need to specify a Receiving Site where the excess soil will be taken for reuse. There may also be restrictions on the type of material that can be stockpiled. The MOE Guideline identifies best management practices for Temporary Soil Storage sites. Owners of Temporary Soil Storage sites may also need to obtain permits and provide Financial Assurance. Soil Storage Sites may also be combined with soil treatment facilities where nonhazardous contaminated soil is cleaned and made available for reuse.

There are no Temporary Soil Storage Sites located in Toronto at the present time. The Region of Peel considered establishing a Temporary Soil Storage Site in Mississauga in order to stockpile excess fill from a water infrastructure project for future use at the proposed Lakeview Waterfront Connection project nearby. Design work was completed however the stockpile was subsequently not considered to be financially viable and did not proceed.

The concept of a "Soil Bank", as used in the Netherlands, involves a service offered by a not-for-profit organization, in coordination with a municipality, which matches sites that generate excess soil with sites where excess soil can be reused. The "Bank" may also arrange for soil treatment, temporary soil storage and identify projects that could generate demand for excess soil. Opportunities for reusing excess soil in The Netherlands are different than in Toronto as there are regulations that govern the management and reuse of contaminated soil.

Given the approval, operational and financial considerations associated with Temporary Soil Storage Sites in Ontario, they would likely only be viable for public projects where large volumes of excess soil are needed. Temporary Soil Storage may be feasible in the Portlands where large volumes of fill will be required to raise grades and further details will be determined through detailed design.

## **Conclusions**

Excess soil in Toronto is generated from water and transportation infrastructure projects and from excavation of deep foundations and underground parking associated with large development projects. There is growing concern in rural areas that receive fill material about the negative impacts associated with transporting excess soil to large-scale commercial fill operations within their jurisdictions. There are several projects under consideration in Toronto which, if approved, will reduce the need to export clean fill from City of Toronto over the coming decades. If these projects proceed over the next decade, there may be an opportunity to put excess soil from development and public infrastructure projects to beneficial use. Using fill locally will divert these materials from rural areas and reduce the negative impacts associated with transporting soil long distances to large-scale commercial fill operations outside Toronto. Due to uncertainty associated with the approval and timing of these projects and the difficulty of matching supply and demand rates, it is likely that excess soil will continue to be exported outside the City of Toronto at least in the short term. The City is considering several possible approaches that would help to ensure that excess soil requiring off-site disposal which is generated within Toronto is managed in accordance with Ministry of the Environment's best management practices.

## **CONTACT**

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## **SIGNATURE**

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