

OEAC-15-40

Background on Municipal Control of Large Fill and Related Bylaws

Background:

Expanding the built infrastructure through construction projects will result in an increase in the quantity of excess construction soil in the coming years. As some jurisdictions increase standards and guidelines for soil quality, sampling and testing as well as additional restrictions on the placement of excess construction soils, the cost of transporting and placing excess soils can be as high as 15 % or more of the capital cost on some infrastructure construction projects such as sewer and water main projects. Project managers who are driven to minimize overall project costs search out the lowest cost options for soil disposal.

When contamination is present in the soil, the disposal costs are significantly higher and disposal options are fewer.

It is now not uncommon for excess soils from civil construction projects in Toronto to be trucked to Durham Region for disposal. Impacts extend beyond those of the soil and include green house gas emissions and dust emissions from truck traffic.

Regulations and Bylaws:

Under the Planning Act (O. Reg 608/06) Section 2, the council of a local municipality may by by-law establish a development permit system. The Regulation sets out the definition of a site alteration to include “ (ii) placing or dumping of fill...”. So although it is a provincial requirement under the Environmental Protection Act (EPA) through the MOE to provide soil quality criteria, it is a municipal responsibility under the Planning Act to regulate the actual final placement of soil and fill through local site alteration bylaws. Additional permits may be required from CLOCA depending on the proposed siting.

In Oshawa, By-law 85-2006 was created as a bylaw to control the dumping of fill, removal of topsoil and alteration of grades. The bylaw includes the soil criteria of “ no contaminants as defined in the Environmental Protection Act “. What does that mean?

The overall cost of sampling soil and soil slurries from excavation projects has been rapidly increasing. This is particularly true for materials being moved from one location to another on-site, not just for sending materials off-site. A new risk based approach is part of O. Reg. 153/04 *Records of Site Condition* .

Strictly speaking, O. Reg. 153/04 only applies to properties for which a Record of Site Condition (RSC) is being recorded (usually for the purposes of a change in land use and/or other registered environmental assessment). However, in the absence of other regulations or guidance, the sampling strategies and parameter limits outlined in O. Reg. 153/04 can be used as “Best Management Practices” for other excavation activities and construction projects within Ontario. An “RSC property” is defined in the regulation as one where a record of site condition is being submitted with respect to changes in the property’s use and designation as either “industrial use”, “commercial use”, “residential use” or “parkland use”. Where there is no primary change in land use and excavations are performed to support construction projects for the erection of buildings, and in the absence of other regulations or regulatory guidance when off-site

disposal or on-site retention for beneficial reuse is intended for “non-waste” materials or other structures, it is still common practice to utilize O. Reg. 153/04 as guidance.

Associated with O. Reg. 153/04 is a series of “Generic Site Condition Standards” that are set out in nine different tables, the most commonly cited are:

Table 1 – Full Depth Background Site Condition Standards

These are average background concentrations in soils from across Ontario that are not contaminated by point sources.

Table 2 – Full Depth Generic Site Condition Standards in a Potable Ground Water Condition

Table 3 – Full Depth Generic Site Condition Standards in a non-Potable Ground Water Condition

There isn't much difference between these two tables for soils, but acceptable levels of various contaminants in groundwater for Table 3 are higher than for Table 2. Table 3 applies when groundwater in the area is being used for drinking water (i.e. there are wells) while Table 3 applies when there are not.

Typically, Table 3 is the one most often used as a guideline for construction projects where drinking water is not directly obtained from the site.

O. Reg. 347 applies when a material is being sent off-site for disposal because the material is deemed as “waste” by virtue of it either having certain hazardous characteristics (i.e. contains hydrocarbons and/or metals at elevated concentrations) or it cannot otherwise be used for “beneficial reuse” such that the only means of off-site disposal is to an approved landfill site licensed to receive such materials. Shortly after (and partially in response to) the first revision of the MOE's *Management of Excess Soil – A Guide for Best Management Practices* in consultation with the Ministry and other stakeholders, RCCAO (Residential and Civil Construction Alliance of Ontario) developed their *Best Management Practices for Handling Excess Construction Soils in Ontario*. The main objective of this document is to provide guidance on the handling of excess soil from a source site or project that are identified as “non-waste” for their beneficial reuse at either the site of origin or at other acceptable receiving locations, and in particular for projects at a location that is not an RSC site subject to O. Reg. 153/04.

What are the Problems with the Existing Bylaw?

The following are areas for improvement for the current bylaw:

1. Many municipalities have already put in place restrictions regarding excess soil placement. In the case of Clarington, the municipality has banned the importation of any soil or fill irrespective of the quality of soil. This is wise as it prevents the municipality from becoming a dumping ground, minimizes impacts on the environment and damage to infrastructure ie roadways and heavy truck traffic.

2. In spite of this ban, soil from excavations in Toronto is currently being placed at sites in Clarington. Enforcement must be rigorous enough supported by sufficient penalties to provide a disincentive to importing soil to the city. Ability to direct the removal of improperly placed soil is essential.
3. Significant effort has been expended by the Province to develop “ Management of Excess Soil – A Guide for Best Management Practices – Jan 2014. The bylaw needs to be revised to require that these practices are strictly followed.
4. Criteria for soil placement needs to be fully aligned with the criteria laid out in O Reg 153/04. Soils not meeting Tables 1 or 2 should not be permitted to be placed within the city. This will insure that the soil is essentially at background levels for contaminants or it is sufficiently clean that groundwater resources will be protected.