

# NEW Regulations

## are Being Developed for Reuse of Excess Construction Soils

By Andy Manahan/RCCAO

It's an exciting time for construction in Ontario. According to the province's Long-Term Infrastructure Plan, \$190 billion will be invested in infrastructure projects over a 13-year period. Construction crews are repairing roads, replacing water mains, expanding rapid transit and building health care facilities. Future growth is being accommodated through new housing – especially high rise in dense urban areas, as well as a range of commercial and institutional projects.

From those projects, almost 26 million cubic metres of excess soil is being generated annually across the province, according to research estimates commissioned by the Residential and Civil Construction Alliance of Ontario (RCCAO). This is equivalent to completely filling the Rogers Centre in Toronto 16 times.

**Table 1**

Breakdown of Soils Generated by Construction Category	
Municipal and Other Infrastructure	10.7 million m <sup>3</sup>
New Residential	8.6 million m <sup>3</sup>
ICI, excluding Roads and Utilities	6.5 million m <sup>3</sup>
Total	25.8 million m <sup>3</sup>

Until recently, excess construction soil had been society's forgotten resource.

Although there is growing awareness that the current approach to managing excess soil is not working as effectively as it could, construction companies and contractors have few options for disposing of excess soil. Especially for projects in the Toronto area, these soils must be hauled long distances to designated sites in rural areas.

Beyond the costs to transport and dispose of soil, there are other impacts. Extra truck traffic results in greenhouse gas emissions and increases wear and tear on our roads and highways. For example, disposing of the excess soils generated by the Eglinton Crosstown Light Rail Transit project in Toronto will take 150,000 truck trips and produce 60,000 tonnes of carbon dioxide.

Most of the excess soil is dealt with responsibly but a few unscrupulous operators illegally dispose of soils without permits. Although soil from urban road beds often contains salt – viewed as relatively clean – there are cases where soils with more harmful contaminants are dumped illegally. Public confidence in the process is eroded when these situations are brought to light.

There is a better way: we need to start thinking of “clean” excess soils (currently defined as Table 1) from construction projects as a resource that can be reused beneficially. With better testing, standardized industry handling practices and excess soil tracking methods, it is possible to determine which soils can be safely reused and to ensure that these soils end up in suitable locations. This approach creates the right conditions for electronic soil matching to reduce haulage times, costs and traffic congestion.

While it is legal, and despite all the space we have in Ontario, the “dig and dump” approach is unsustainable in the longer term. It is preferable to beneficially reuse as much of this excess soil as possible in infrastructure projects close to the point of origin.

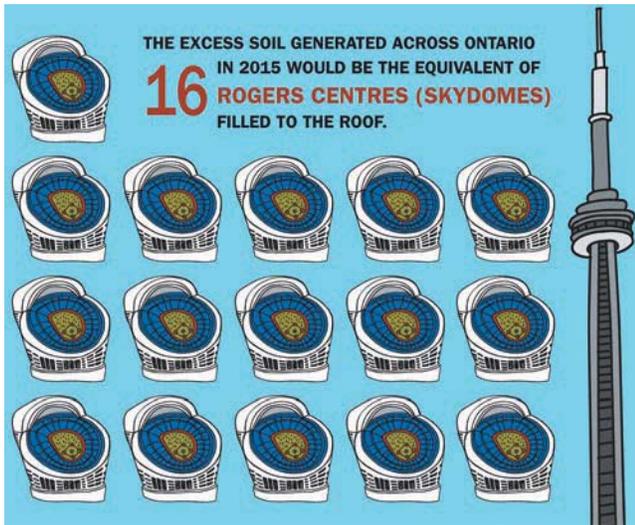
Reuse of excess construction soils has several major benefits:

- It keeps costs down by reducing transportation and disposal expenditures for infrastructure and development projects. This means in theory that more infrastructure funding will be available for building these projects rather than on hauling dirt around the province.
- It improves air quality by reducing the number of trips taken by large trucks moving soil to distant landfills.
- It means that our roads will be safer and last longer due to less heavy truck traffic.

Over the past several years, steps have been taken to encourage the responsible reuse of excess construction soils. In January 2014, the Ministry of the Environment and Climate Change (MOECC) released a Best Management Practices (BMPs) guide for soil management. When properly implemented and used, these BMPs give municipalities the ability to make sure that clean soils are reused wherever possible, or otherwise safely disposed.

In December 2016, the Ministry released an Excess Soil Management Policy Framework which contained 21 action items. Even though MOECC has taken the lead on this, the Framework represents a multi-ministry approach which has had input from: Transportation; Natural Resources and Forestry; Agriculture, Food and Rural Affairs; and Infrastructure.

Based on its previous leadership on brownfields redevelopment, one of the key ministries is the Ministry of Municipal Affairs (MMA). Among its lead roles, MMA is positioned to encourage the municipal sector to develop soil reuse strategies as part of planning for growth and development. Key action No. 2 from the Framework states that “MMA and MOECC could require preparation of an Excess Soil Management Plan (ESMP) for issuance of certain building permits.”



For larger projects, contractors will be required to develop and implement ESMPs which are certified by a Qualified Person. While reuse of soils can be handled easily on rural highway projects, for example, there are specific challenges for buildings. The province wants to encourage municipalities to identify appropriate areas to store or process excess soils to facilitate local reuse. Such methods are used effectively in the U.K. and elsewhere, where higher tipping fees for landfill act as an incentive for temporary storage and reuse.

There have been other initiatives along the way: an Environmental Bill of Rights (EBR) application for review was launched in late 2013, and a 2014 motion in the Ontario legislature received all-party support to "...consider the development of a strategy for disposing of (excess soil) in a sustainable and environmentally conscious fashion."

Partially due to municipal concern about liability, there has been a focus on development of regulations for excess soils. In April 2017, there was an EBR posting to get feedback on a draft regulation which proposed, among other things, to place more focus on source sites. A total of 110 submissions were received by June 23, 2017. At a meeting on Dec. 1, 2017, MOECC staff provided a summary of what was heard. Most of the submissions supported a transition period of between one and five years for implementation. Reuse standards and clarification of the waste designation would go into effect on Jan. 1, 2020, while ESMP and other regulatory requirements would go into effect on Jan. 1, 2021.

In consideration of the implementation lead times proposed and the complexities of the various regulatory pieces involved, it is important to recognize that most small to medium sized municipalities and small contractors have limited resources to understand and adopt the proposed new regulations and practices. A comprehensive implementation plan covering outreach, education and training program elements is required to be put in place. For example, training and certification programs for Qualified Persons will be critical to ensure that there is proper oversight at both source and reuse or receiving sites. Without proper credentials, there could be liability exposure.

As a result of feedback from the EBR posting, lawyers working on behalf of MOECC are redrafting the regulations and we expect that the regulation will be finalized in early 2018. In addition, there will be linked requirements with the brownfield regulation, although this will be a separate package and could come into effect immediately upon filing.

Programs will have to be developed to educate owners, contractors and haulers. RCCAO has suggested that pilot projects be carried out to test whether the new regulations will work in practice before being implemented over the next few years. Pilot testing of supporting new technologies and BMPs is critical to getting things right and promoting continuous improvement.

Before the regulations are approved, however, industry and other stakeholders have called for an opportunity to review the revised wording before it becomes official. Construction is a complex business and the intent is to put in place a regulation, processes and procedures that will not only result in compliance but also work as effectively as possible.

We welcome the input of OGCA members as the regulations and other actions items are rolled out. ■

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*The MOECC has reviewed all public input received through the Environmental Registry regulatory proposal and through engagement sessions with stakeholders, including RCCAO. We appreciate your comments on the proposed regulation, including those related to the waste designation and promoting beneficial reuse. At the ESEG meeting in December, we presented proposed revisions responding to comments that were raised in the regulatory proposal. At this meeting, we heard a clear desire from the ESEG for MOECC to share legal wording of the proposed regulation before it is finalized. We are working on this wording, and anticipate sharing it in the near future.*

*Chris Ballard, Minister*



**2017 UPDATE:  
QUANTIFICATION of  
Excess Construction  
Soils in Ontario**