

Misapplication of Brownfields Standards to Aggregate Products

Issue:

Some users of aggregate product are misapplying standards meant for soil to products such as stone, sand and gravel.

Stone, sand and gravel processed in a pit or quarry are products, not soil. However, Soil, Ground Water and Sediment Standards (Tables 1 through 9) for Use Under Part XV.1 (Records of Site Condition) of the *Environmental Protection Act* are being broadly used and misapplied to aggregate products even though they are not required to meet these standards. This regulation is only applicable to those sites where a Record of Site Condition is intended or will be filed. Furthermore, O.Reg 153/04 defines soil as “unconsolidated naturally occurring mineral particles and other naturally occurring material resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimeters in size or that pass the US #10 sieve.” Aggregate products are created through a mechanical process (crusher machinery) of reducing rock size; therefore, they do not meet the definition of soil.

The Ministry of Environment and Climate Change’s (MOECC) Management of Excess Soil – a Guide for Best Management Practices includes an exemption for aggregate product extracted from pits and quarries. The MOECC’s proposed Excess Soil Management Regulations also explicitly state that “excess soil does not include soil or rock removed from a pit or quarry regulated under the *Aggregate Resources Act* or a pit or quarry that would be so regulated if it was operating in an area to which the *Aggregate Resources Act* applies.”

Some municipalities and developers of federal and provincial infrastructure projects are applying these standards to all materials used for fill and construction – including stone, sand, and gravel products from pits and quarries. In these scenarios, material that does not meet these standards, is either rejected, or required to be removed (at a significant cost to the producer), and usually ends up in landfills. Additionally, because of this misapplication, there is potential for aggregate products to be improperly managed during the assessment of a brownfield property. If it is not contaminated (and poses no risk to human health or the environment), every effort should be made to recycle aggregate for re-use as a product.

As a result, valuable aggregate resources are being wasted and there are increasingly lost opportunities for the optimal, beneficial use of materials from pits and quarries in a circular economy.

Background:

Table 1 standards (Full Depth Background Site Condition Standards) were based on samples collected from the upper 15 cm of soil at a limited number of sites across the province. The concentrations of some parameters, such as metals, are biased low due to leaching and movement of metals down through the soil profile. The sampling program did not attempt to evaluate or account for naturally occurring elements in materials located 0.15 m below surface.

Table 1 is not representative of background conditions for soils in all areas and at all depths; most soil - and aggregate - in this province does not meet Table 1 standard. In 2012, OSSGA undertook an aggregate materials sampling program with the goal of finding a resolution to the unintended consequences of the brownfields regulation (O.Reg 153/04) to Ontario’s aggregate industry. The study was commissioned by OSSGA and performed by third party qualified professionals with a MOECC-approved sampling and testing protocol. The results showed that

products from 45% of pits and 90% of quarries did not meet Table 1 standards for residential land use.

However, this is not being effectively communicated by the MOECC, leading to misapplication by other agencies.

Key Messages:

- Aggregates are not soil. Sand, stone and gravel processed in a pit or quarry are products, and therefore regulations and standards relevant to soil should not apply to aggregate product.
- Misinterpretation of O. Reg 153/04 and standards is resulting in significant amounts of aggregate going to landfills rather than being utilized for infrastructure that is essential to growing our economy. The result of this is an increased cost to the taxpayer and a negation of efforts to create a circular economy in Ontario.
- The MOECC's proposed definition of excess soil that exempts stone, sand and gravel should be better communicated to other Ministries, municipalities, and stakeholders.
- Guidance is still needed from the MOECC to clarify the intended reach and application of O.Reg 153/04 and standards.

Next Steps:

- OSSGA's Environment Committee will continue to monitor this issue and provide updates to this position paper as warranted.
- OSSGA will develop a lobby strategy with the objective of achieving guidance from the MOECC on the application of O.Reg 153/04 and standards.
- Individual producers are advised to be aware and monitor this issue.

Please note, this paper is for information purposes only, producers should ensure they receive the advice of qualified legal or other experts where appropriate.