

February 24, 2022

Submitted online via the Environmental Registry of Ontario

ERO 019-4801 Proposed regulatory changes for the beneficial reuse of excess soil at pits and quarries in Ontario

The Ontario Society of Professional Engineers (OSPE) is the advocacy body and voice of the engineering profession. Ontario currently has over 85,000 professional engineers, 250,000 engineering graduates, 6,600 engineering post-graduate students and 37,000 engineering undergraduate students.

OSPE is pleased to present the following submission concerning **proposed regulatory changes for the beneficial reuse of excess soil at pits and quarries in Ontario**

General Comments

- OSPE was pleased to convene a steering committee that prepared the scientific review paper and best management practices regarding the potential beneficial reuse of excess soils for rehabilitation of aggregate pits and quarries. This work was undertaken with support from the Ministry of the Environment, Conservation and Parks (MECP). OSPE notes that the ERO posting references our work and we would be pleased to provide additional support (e.g. clarification) on the contents of our documents and/or connect you with steering committee members.
- Alignment with the excess soil and standards and rules is positive, particularly the alignment with generic standards and associated exemptions, with consideration to the site setting and placement of the soil (e.g., depth of placement for salt impacted soil).
- The Ministry may consider adding brief reference to consideration of geotechnical requirements of intended future site use. The current focus on beneficial reuse of soil is rightly on environmental quality of the material and mitigating potential adverse impacts. However, consideration of the geotechnical suitability of soil material must also be considered to ensure that rehabilitated sites can be reused for their intended purpose.
- Although the MECP excess soil webpage and OSPE papers reference the MECP Excess Soil Best Management Practices Guide, the Ministry of Northern Development, Mines, Natural Resources may consider more specifically referencing this document in the list of references.
- For clarity, the Ministry should note whether aggregate sites receiving material for beneficial reuse must register on the Excess Soil Registry. Receiving sites are currently required to register when receiving more than 10,000 m³ of material for beneficial reuse.

Specific Comments

- **Item 1a:** The recommendation that soil placed beneath the water table must meet Table 1 standards is based on the current model considering leachate impacts resulting from precipitation. Consideration could be given to following risk-based approaches to

determining whether impacts may occur using site specific data as described in the [OSPE Scientific Report: Beneficial Reuse of Excess Soil at Aggregate Pits and Quarries](#) document.

- **Item 1c:** What is the intent of “*when no other alternative is available, a site-specific standard development through the BRAT... may be used...*”. Is the intent that the Beneficial Reuse Assessment Tool (BRAT) can be used to derive site specific standards, subject to Site Instrument requirements? Or is the intent to limit the use of the BRAT beyond the conditions described in O. Reg. 406/19 and the Excess Soil Rules? OSPE recommends that use of the BRAT be permitted subject to the same conditions as O. Reg. 406/19 and the Soil Rules (e.g., that work is undertaken by a qualified person as described in the MECP Excess Soil Rules and that site use characteristics must be reference in the Site Specific Instrument). The BRAT is based on the science and models used to derive the generic site condition standards and may be used by practitioners to confirm that beneficially reused soil will not cause adverse impacts with consideration to site specific data and future uses in mind.
- **Item 1 general:** The Ministry may consider clarifying how soil with regionally elevated background concentrations of select parameters may be beneficially reused. The Excess Soil Rules note that these soils may be beneficially reused if soil “within the area” is of similar quality, however, it is not clear how this exemption will be interpreted. For example, pits and quarries in the Ottawa Region may not be within Champlain Sea Deposits, however, these materials are ubiquitous in the Ottawa Region which may be interpreted as within the area of the reuse site. In circumstances where there is concern about adverse impact, consideration could be given to using the BRAT.
- **Item 1 general:** The Excess Soil Rules and existing ARA policies provide conditions for beneficial reuse of salt impacted excess soil. These require a minimum setback of 100 m from current potable water well(s) or area with an intended property use that may require a potable water well. These exemptions do not allow for consideration of additional data to determine whether an adverse impact is likely to occur. Pits and quarries where hydrogeological investigations have occurred may have data that would allow a qualified person to more fully assess the potential for salt impacts. The Ministry may clarify whether there are additional circumstances and/or data that may be considered for salt impacted soil in settings where a 100 m setback from existing or future potable well use cannot be achieved. For example, this could include consideration of a modified risk assessment process (or the like) that allows a Qualified Person (QP) to articulate hydrogeological conditions, associated considerations, and recommended monitoring for adverse impacts (where appropriate).
- **Item 2, second bullet:** The conditions for QP involvement are reasonable. The Ministry may consider providing further clarification of expectations with respect to “final placement is overseen by a QP”. It may not be practical nor necessary for a QP to be present during all final soil placement activities, however, a QP may develop the plan and procedures for soil placement and may assist with training and/or auditing of placement activities. OSPE would be pleased to work with the MNDMNR to develop guidance documents and/or provide channels to communicate with our members – many of which are QPs.

- **Item 2, second bullet:** The Ministry may consider clarifying sampling expectations when imported soil is not subject to Section 8 of O. Reg. 406/19 -e.g., “low risk soils”. Soil subject to Section 8 must meet minimum sampling requirements described in the Soil Rules. Although O. Reg. 406/19 has an overarching condition that soil must meet the standards no minimum sampling requirements are specified in circumstances when the soil is exempt from Section 8 and the soil rules. It is anticipated that in most circumstances some sampling of soil will be required to confirm compliance with the soil rules. For clarity and consistency of interpretation across Ontario, the Ministry should state whether the minimum sampling requirements will be applied as de facto best practices or provide guidance on alternate sampling frequencies that may be deemed acceptable (e.g., with consideration to the source site setting/history and proposed reuse site soil quality standards).
- **Item 3:** The sites proposing the use of a BRAT or a significant change in the Site Plan (e.g., a change from proposed infill of water to create a pond to rehabilitation by backfill) will not be subject to the self-filed amendment process and this is reasonable.
- **Future and Existing Sites, Second Bullet:** The Ministry may consider expanding on the expectations with respect to consideration of community impacts (e.g. consultation, planning statement(s), monitoring and reporting procedures). OSPE and MECP best practices identify several considerations, and we would be pleased to provide further support in this regard.
- **Future and existing sites, Third Bullet:** The Ministry may consider clarifying the intent of prohibiting import of liquid soil to ARA Sites. It is our understanding that this does not preclude a site from surrendering its license and seeking approval to receive liquid soil from the municipality having jurisdiction.
- **Regulatory impact statement:** The costs of \$35,000 per year seem high but depends on Ministerial expectations of scope of work. OSPE would be pleased to review and comment further on the costs based on further clarification of the assumptions made.

If you have any additional questions please contact Stuart Atkinson, OSPE Public Affairs Manager at satkinson@ospe.on.ca or 416-223-9961 ext. 225.

Sincerely,



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