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December 1, 2023

Ministry of the Environment, Conservation and Parks - Land Use Policy, Environmental Policy  
40 St Clair Avenue West  
Floor 10  
Toronto, ON  
M4V1M2

Attn: Reema Kureishy  
Sent via email:

**Reference: Proposed Regulatory Amendments to Encourage Greater Reuse of Excess Soil (ERO# 019-7936)**

Dear Reema Kureishy,

The Canadian Brownfields Network (CBN) appreciates the opportunity to participate in the Ministry of the Environment, Conservation and Parks (MECP) invitation to comment with respect to the *Proposed regulatory amendments to encourage greater reuse of excess soil (ERO# 019-7936)* (Amendment). The CBN's Technical Advisory Committee (TAC) has solicited and compiled comments from interested members for the purpose of making this submission on behalf of CBN. CBN has a diverse membership of site owners, developers, consultants, and industry association representatives who are active in the area of brownfield development within Ontario and across Canada.

CBN is committed to supporting the redevelopment and reuse of brownfield properties through advocacy for regulations and policies that are founded on sound science and appropriate risk, are harmonized across jurisdictions, and provide clarity and certainty with respect to brownfield redevelopment.

The proposed Amendment is seen, overall, as a positive change. In particular, changes allowing the introduction of topsoil and landscaping and aggregate reuse depots, enhance the opportunity to beneficially reuse materials.

CBN supports the implementation of the Amendment but suggests the MECP consider further changes that would improve both the clarity and applicability of the Excess Soil Regulation. We recommend that the proposed sampling of aggregate and topsoil at these proposed reuse depots be further scrutinized, as these materials are geochemically different in composition than the soils for which the standards were developed. The specific issues and suggestions for improvement are included in the attached Table.

We would be pleased to discuss these comments further with the MECP. In closing, we thank you for the opportunity to provide comments and input on the Amendment.

Kindest Regards,

Jason Hudson  
Co-Chair, Technical Advisory Committee  
Canadian Brownfields Network

Krista Barfoot  
President  
Canadian Brownfields Network

**Table 1: Comments on the Proposed Amendments to O. Reg. 406/19: On-Site and Excess Soil Management (Proposed Regulatory Amendments to Encourage Greater Reuse of Excess Soil)**

Section	Issue Type	Issue Description	Comment
1) Exempt specified excess soil management operations from a waste environmental compliance approval (ECA) subject to rules	Applicability	<p>On Page 2, Item 1, A. Topsoil and landscaping reuse depots, 4th bullet, of the proposed amendments:</p> <p>“Excess soil at these sites would be required to meet Table 2.1 residential, parkland, and institutional standards or cleaner to help ensure it is reusable for this purpose.”</p>	<p>Specific parameters including hot water-soluble boron, boron, sodium adsorption ratio, electrical conductivity, and petroleum hydrocarbons (PHC) fraction (F) 4 in topsoil will likely not meet Table 2.1 ESQS RPI, which will negatively impact the potential beneficial reuse of topsoil.</p> <p>CBN does not recommend that sampling be completed on topsoil as the ESQS were not developed to account for the geochemical composition of topsoil. If this exclusion is not possible, CBN recommends that, along with comparison to Table 2.1 ESQS RPI, the MECP accept a hybrid approach with additional comparison to horticultural parameters per the landscape architect, pedologist and agrologist requirements, with the horticultural comparison taking precedence over the Table 2.1 ESQS for these specific parameters. Finally, CBN recommends that MECP prepare a list of common parameters occurring in topsoil, such as those listed above, that are exempt for analysis and comparison to Table 2.1 ESQS.</p>
1) Exempt specified excess soil management operations from a waste environmental compliance approval (ECA) subject to rules	Applicability	<p>On Page 3, Item 1, B. Aggregate reuse depots, 2nd bullet, of the proposed amendments:</p> <p>“These facilities would only accept used/recycled aggregate, which would be defined as material that has been excavated from a project area (not an aggregate pit or quarry), was used as an aggregate product developed to meet a specific engineering need and was not general fill or mixed earth (e.g., granular A or B)”</p>	<p>It is common that recycled concrete may be added to aggregate that is used at construction sites and this may be difficult to distinguish from aggregate derived from a pit, even after screening. The presence of recycled concrete within the aggregate should not limit the potential beneficial reuse of the aggregate. CBN does not recommend that sampling be completed on aggregate as the ESQS were not developed to account for the geochemical composition of aggregate. If this is not possible, CBN recommends that the MECP adopt an approach that allows for leachate analysis to be conducted using the synthetic precipitation leachate procedure and comparison to Table 2.1 LSLs or Table 3.1 LSLs for beneficial reuse on the proposed land use option.</p>

Section	Issue Type	Issue Description	Comment
<p>1) Exempt specified excess soil management operations from a waste environmental compliance approval (ECA) subject to rules</p>	<p>Applicability</p>	<p>On Page 3, Item 1, B. Aggregate reuse depots, 5th bullet, of the proposed amendments:</p> <p>“The aggregate must be known to be of a quality that it can be reused in an infrastructure project (e.g., meets community quality standards if for road use) or if not tested, there are no indications (visual, olfactory, known history) of contaminants. However, if the material exceeds salt-related standards, it may be stored at these depots since that material could be reused at many infrastructure projects based on the Rules.”</p>	<p>Specific parameters including background metals, and PHC F4 in aggregate will likely not meet Table 3.1 ESQS ICC, which will negatively impact the potential beneficial reuse of aggregate. In addition, the probability of asphalt “contamination” in reused aggregate is significant, which doesn’t prevent it from being reused from a construction perspective, but would cause PHC and PAH exceedances of the ESQS. Finally, the incorporation of recycled asphalt and concrete into aggregate products (an important existing circular economy) will become problematic due to pH, PHC, PAH, and metals “exceedances” of soil standards that were not developed to account for aggregate.</p> <p>CBN does not recommend that sampling be completed on aggregate as the the ESQS were not developed to account for the geochemical composition of aggregate. If this is not possible, CBN recommends that, along with comparison to Table 3.1 ESQS ICC for aggregate, the MECP accept a hybrid approach that allows for leachate analysis to be conducted using the synthetic precipitation leachate procedure, with the Table 3.1 LSLs comparison taking precedence over the Table 3.1 ESQS ICC. Finally, CBN recommends that MECP prepare a list of common parameters that will occur in aggregate, such as those listed above, that are exempt for analysis and comparison to Table 3.1 ESQS.</p> <p>An alternative approach would be to reduce or eliminate the requirement for aggregate characterization when such material is to be reused for similar purposes.</p>

Section	Issue Type	Issue Description	Comment
1) Exempt specified excess soil management operations from a waste environmental compliance approval (ECA) subject to rules	Clarity	<p>On Page 4, Item 1, C. Small liquid soil depots, 3<sup>rd</sup> bullet:</p> <p>“For clarity, material from cleaning out sewage works is not excess soil and would not be permitted at these sites; nor would liquid soil that is hazardous waste, that is from a soil remediation project or from an industrial stormwater pond.”</p>	<p>Since the MECP has considered all stormwater ponds to be ‘industrial’ use for excess soil management purposes, this statement should be clarified to specify to which types of stormwater ponds this is intended to apply.</p>
1) Exempt specified excess soil management operations from a waste environmental compliance approval (ECA) subject to rules	Clarity	<p>On Page 4, Item 1, C. Small liquid soil depots, 8<sup>th</sup> bullet:</p> <p>“For clarification, wastewater would continue to be required to be managed in accordance with requirements under the OWRA, including any requirements for sewage works approvals.</p>	<p>Please clarify what wastewater is being referenced by this statement, and when such sewage works approvals may be required, in the context of a small liquid soil processing facility, which is allowed up to 200 m<sup>3</sup> of liquid soil to be processed at a time.</p>
2) Enhanced reuse opportunities for salt-impacted soil (Section D, Part I in the Soil Rules)	Clarity	<p>On Page 4, Item 2, 1st bullet, of the proposed amendments:</p> <p>“Amend the rules enabling the use of salt-impacted soil (soil that exceeds the salt-related standard, e.g., electrical conductivity and sodium adsorption ratio) at locations where such soil is anticipated to have minimal impact, and deem that it meets the salt-related quality standards, as follows:”</p>	<p>Can the MECP specifically speak to the presence of EC/SAR that is NOT inferred to be associated with road-salt application? Would it be managed the same as soils from road-salt impacted areas?</p>

Section	Issue Type	Issue Description	Comment
2) Enhanced reuse opportunities for salt-impacted soil (Section D, Part I in the Soil Rules)	Applicability	<p>On Page 4, Item 2, 1st bullet, of the proposed amendments:</p> <p>“Amend the rules enabling the use of salt-impacted soil (soil that exceeds the salt-related standard, e.g., electrical conductivity and sodium adsorption ratio) at locations where such soil is anticipated to have minimal impact, and deem that it meets the salt-related quality standards, as follows:”</p>	<p>The exemption for salt related parameter only included EC and SAR exceedances. Can the MECP consider other salt related parameters for exemption, such as cyanide from the use of ferrocyanides as a use of an anti-caking agent for road salt.</p>
2) Enhanced reuse opportunities for salt-impacted soil (Section D, Part I in the Soil Rules)	Clarity	<p>On Page 5, 1<sup>st</sup> bullet:</p> <p>“Currently, salt-impacted soils can be placed at industrial and commercial sites where non-potable excess soil quality standards can be applied to a reuse site...”</p>	<p>Please clarify that this section refers to amending one of three possible scenarios where salt-impacted soil can be reused, and that it applies particularly to the placement of salt-impacted soil at depths of less than 1.5 m below ground surface.</p> <p>Please confirm and correct the 4<sup>th</sup> sub-bullet to indicate that the restriction for placement near a surface water body is 30 m instead of 100 m.</p>
3) Enable greater soil management at Class 2 soil management sites and create greater alignment at local waste transfer facilities and depots (section 21 and 25 of the Excess Soil Regulation and associated provisions in the Soil Rules)	Clarity	<p>On Page 5, Item 3, 2<sup>nd</sup>, of the proposed amendments:</p> <p>“Replace Director’s notification with requiring the filing of a notice on the Excess Soil Registry if accepting greater than 2,000 m<sup>3</sup> of dry excess soil (instead of the current requirement to notify a Director for any Class 2 site)”</p>	<p>Please confirm if any notice requirements will be in place for a Class 2 site that accepts less than 2,000 m<sup>3</sup> of soil. If so, what form would this notice take?</p>

Section	Issue Type	Issue Description	Comment
3) Enable greater soil management at Class 2 soil management sites and create greater alignment at local waste transfer facilities and depots (section 21 and 25 of the Excess Soil Regulation and associated provisions in the Soil Rules)	Clarity	<p>On Page 5, Item 3, 3rd bullet, of the proposed amendments:</p> <p>“Amending clause a) of the definition of Class 2 soil management sites to include a property owned or controlled by a public body, enabling public bodies to lease properties for the purpose of operating a Class 2 site.”</p>	<p>Would the MECPC consider expanding their interpretation of “controlled by” to include other mechanisms beyond leasing? For example, the Public Body could enter a contract with the owner/operator of the Class 2 facility whereby they operate the facility, or portions of the facility, under the terms of a contract with the Public Body?</p>
4) Hauling record exemptions and clarifications (section 18 of the Excess Soil Regulation)	Clarity	<p>On Page 6, Item 4, Section B.b.i.:</p> <p>“location” would be clarified to state “physical address, if one exists”</p>	<p>If a physical address does not exist for the project area, please clarify what should be indicated to identify the site location (e.g., nearest intersection, other site identifier or name, coordinates, other?)</p>
5) Exempt landscaping projects at enhanced investigation project areas from the reuse planning requirements (Schedule 2 of the Excess Soil Regulation)	Applicability	<p>On Page 7, Item 5, 1st bullet, of the proposed amendments:</p> <p>“The exemption will apply to a project that is excavating 100m<sup>3</sup> or less of excess soil from an area within an enhanced investigation project area that is not known to have any potentially contaminating activities and there is no known or apparent reason to suspect that the soil is impacted by contaminants.”</p>	<p>Clarify by stating that the exemption applies specifically to a <b>landscaping</b> project (add this to the first bullet reference to ‘project’), and that it is not specifically a Qualified Person’s responsibility to assess for known potentially contaminating activities in this situation. Otherwise, in practice this volume of 100 m<sup>3</sup> exemption cannot be evaluated unless a Qualified Person has been engaged.</p> <p>CBN recommends that all landscape projects be exempt as this speciality is outside the area of expertise of a professional geoscientist and professional engineer. All landscape projects should be overseen by the suitable expert such as a landscape architect, pedologist and/or agrologists, who have the correct training and experience regarding this area of expertise, and they should have the decision regarding the beneficial reuse of topsoil.</p>

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7) Clarifying sampling and analysis requirements (Section B of Part 1 of the Soil Rules)	Clarity	<p>On Page 8, Item 7, 1st bullet, of the proposed amendments:</p> <p>“Salt-impacted soil: Clarify that soil does not need to be tested for all required minimum parameters if the only reason an area of potential environmental concern (APEC) is identified is due to salt application. Some sampling must still be completed to understand the extent of salt impacts but can be limited based on QP judgement. Salt-related APECs must be identified in an assessment of past uses (APU), if completed.”</p>	<p>Can the MECP clarify what “some sampling” means? Are they speaking only of sample frequency, or ALSO parameters to be tested?</p>
7) Clarifying sampling and analysis requirements (Section B of Part 1 of the Soil Rules)	Applicability	<p>On Page 8, Item 7, 4th bullet, of the proposed amendments:</p> <p>“Tunnelling projects: Add emphasis that sampling requirements associated with tunnelling projects may be achieved through in-situ or stockpiling sampling, or a hybrid approach based on the qualified person’s judgement, and sampling may be undertaken at a Class 2 site or local waste transfer facility, to help address practical/logistical challenges with deep in-situ sampling.”</p>	<p>The requirement for in-situ sampling does not consider the use conditioning agents /additives used for tunnel boring which includes:</p> <ul style="list-style-type: none"> <li>• Bentonite slurry (comprising sodium, potassium, or calcium montmorillonite minerals)</li> <li>• Polymers (including polyacrylamides, polyacrylates, polyanionic cellulose, carboxymethyl cellulose, and natural proteins, starches, and sugars)</li> <li>• Foam (surfactants, polymers combined with air and water)</li> </ul> <p>The tunneling additives are used for a variety of reasons such as to make spoils suitable for over the road haulage, to minimize dust and to improve the effectiveness of the Tunnel Boring Machine (TBM) during the boring process.</p> <p>CBN agrees that any testing for beneficial re-use of tunnelling spoils should allow for the Qualified Person to assess which form of sampling is appropriate on a project-specific basis.</p>



Section	Issue Type	Issue Description	Comment
8) Greater flexibility for storage of soil adjacent to waterbodies (storage rules in the Soil Rules document)	Clarity	On Page 8, Item 8, 1 <sup>st</sup> bullet: “the soil was excavated from the water body near the shoreline, including a stormwater pond, the shoreline riparian area or from the land area adjacent to the water body...”	Please remove reference to a stormwater pond in the context of a water body and instead clarify that for the purposes of this amendment and O.Reg. 153/04, a stormwater pond is excluded from the definition of a water body. Instead, it could be clarified that soil or sediment excavated from a stormwater pond may be placed within 30 m of the pond.
9) Other clarifications and corrections	Clarity	On Page 9, Item 9, Soil Rules, 2 <sup>nd</sup> bullet: With respect to leachate analysis, clarify that if petroleum hydrocarbons and metal parameters are only being sampled because of the mandatory sampling and analysis plan requirements (i.e., they were not also associated with a potentially contaminating activity), they do not need leachate analysis as well.	It is noted that there are no leachate screening levels established for petroleum hydrocarbons; therefore, metals are the only parameters that apply to this potential situation.