



December 1, 2023

Ontario Ministry of Environment Conservation and Parks
Environmental Policy Branch
40 St Clair Avenue West, 10th Floor
Toronto, ON, M4V 1M2

Online submission

Re: Proposed Amendments to Ontario Regulation 406/19, Environmental Registry Notice #019-7636

Dear Ms. Kureishy,

EXP Services Inc. (EXP) has reviewed the Proposed Amendments to Ontario Regulation (O.Reg.) 406/19 and appreciate the opportunity to provide comments to the Ministry of Environment, Conservation and Parks (MECP).

Please do not hesitate to contact us, should you have any questions or require further clarification on the comments.

Sincerely,

EXP Services Inc.

A handwritten signature in black ink that reads "Hayman". The letters are cursive and somewhat stylized.

Jennifer Hayman, P.Geo., QPESA
Discipline Lead, Excess Soils
Earth and Environment
jennifer.hayman@exp.com

A handwritten signature in black ink that reads "Stacy Meek". The signature is cursive and fluid.

Stacy Meek, P.Eng., QPESA
Team Lead – Geo-Environmental & Soil Management
Earth and Environment
stacy.meek@exp.com



Amendment No.	Proposed Amendment	EXP Comments	Proposed Action
1) Exempt specified excess soil management operations from a waste environmental compliance approval (ECA) subject to rules			
<u>B. Aggregate reuse depots</u>	<p>These facilities would only accept excess soil that can be reused (recycled aggregate) to meet a realistic market demand as an aggregate product in an infrastructure or building project (not general fill or soil amendment) and does not include glass, concrete, asphalt, etc.; any material found to be unusable for these purposes must be promptly disposed of.</p>	<p>The limitation to exclude any aggregate that contains glass, concrete, asphalt, etc. for storage, reuse and recycling as an aggregate product at the proposed Aggregate Reuse Depots will limit the beneficial reuse of this important resource that is permissible under OPSS 1010.</p> <p>OPSS 1010 indicates that some aggregates such as Granular A, B Type I and III, and M can be produced from one or a blend of reclaimed materials other than virgin aggregates, including reclaimed hydraulic cement concrete and iron blast furnace slag or nickel slag, asphalt coated particles derived from RAP, glass and ceramic materials, with the allowable content dependent on the granular type.</p>	<p>Engineered aggregate materials containing reclaimed materials, as allowed by OPSS and many municipal standards should be permitted for beneficial reuse at Project Areas and storage at the proposed Aggregate Reuse Depots.</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>Elevated pH, PAHs and PHC are commonly identified contaminants when characterizing aggregates originating from below pavement structures within Project Areas. It is anticipated that the elevated levels are likely attributed to the use of recycled aggregate permissible for placement in accordance with OPSS specifications (that may contain reclaimed materials) or the aggregate material may contain residual asphalt or concrete fragments from the pavement structure inadvertently introduced during sampling, placement or removal activities.</p>	<p>Recycled aggregate should be deemed to meet the ESQS, provided that any exceedances can be demonstrated by a QP to be attributed to the presence of allowable non-soil material in the engineered aggregate. Should the engineered aggregate not adhere to ESQS, permitted risk-based placement rules should be provided, such as limitations for the reuse of the materials as road base materials, thickness, depth below ground surface, off-sets from environmentally sensitive features and waterbodies, etc. Additionally, given that this material does not original from a soil source (i.e. aggregate) consideration should be given as to whether a QP can evaluate the suitability of recycled aggregate by comparison to appropriate leachate screening levels and not bulk analysis, where elevated bulk analysis results are suspected to have resulted from the presence of allowable non-soil material in the engineered aggregate.</p>



Amendment No.	Proposed Amendment	EXP Comments	Proposed Action
	<p>These facilities would be required to register a notice on the excess soil registry operated by RPRA for compliance and general awareness purposes before commencing and upon closure of operations.</p>	<p>Further changes are required to O. Reg. 406/19 to allow direct beneficial reuse of recycled aggregate not originated from an Aggregate Reuse Depot, provided that the aggregate material without processing meets the applicable geotechnical standards. For example, materials from a road base within a Project Area that are being re-used for the same purpose at a Reuse Site (e.g. as Granular M) to align with pre-regulation industry practices. .</p>	<p>It is recommended that an alignment of the permissible engineered aggregate materials under OPSS and many municipal standards with what is acceptable for direct reuse from a Project Area to a Reuse Site (Receiving Site) under O. Reg. 406/19.</p>
<p>C. Small Liquid Depots</p>	<p>Soil storage rules that apply to liquid soil storage will also apply to these sites, including required storage on an impermeable surface and required storage in a leak-proof container, and the facility would be required to have controlled access (gates, fencing), spill containment and clean up equipment.</p>	<p>For Small Liquid Depots that are permitted to store and process liquid soil using low risk processes, it is interpreted that while being stored, liquid soil and all liquid process residues must be contained on an impermeable surface in a leak proof container. However, in practice historically liquid soils would be spread across the ground surface or a lagoon to allow for passive dewatering by infiltrating into the subsurface. This leads to confusion as to whether excess water from passive dewatering can be allowed to infiltrate, or whether it must be contained on an impermeable surface in a leak proof container.</p>	<p>Further clarity is needed in the Regulation as to the acceptable management of dewatering effluent. It is recommended that liquid soil and process residues that are liquid be contained in a leakproof container on an impermeable surface in a manner sufficient to contain and prevent the material from escaping into the natural environment prior to characterization. Representative samples of the liquid soil be obtained and the effluent be analyzed to confirm conformance with the applicable groundwater standards. Once the effluent of the liquid soil is confirmed to be of appropriate quality, the requirement for the containment of the liquid soil would be removed and passive dewatering and on permeable surfaces would be permissible.</p>
<p>2) Enhanced reuse opportunities for salt-impacted soil (Section D, Part I in the Soil Rules)</p>	<p>Salt-impacted soil would be permitted for reuse on undertakings on properties that have a community, institutional, parkland or residential use, based on a landscape or site plan prepared and certified by an expert (e.g., a licensed landscape architect) identifying areas and depths at which salt-impacted soil can be used without affecting existing or future anticipated vegetation, and the acceptable concentration of the salt-related contaminants in these areas.</p>	<p>Given the variability of salt-related parameter concentrations in soil, experts are unlikely to attest to an appropriate acceptable range for salt related parameters to support practical reuse options. Furthermore, at the time of early earthwork planning and characterization, the landscaping plan typically is not finalized and it is unlikely that a landscaping architect would be in a position to confirm suitable placement recommendations.</p> <p>Determining acceptable levels of SAR or EC should be completed by a QP_{RA} and including this requirement will add unnecessary costs and red tape to the reuse of salt-impacted soil and does not align with how salt-related exceedances are considered under the current scenarios (industrial or commercial sites) and Record of Site Conditions. In areas identified as not posing risk to existing or future vegetation, the values for EC and SAR should be deemed to meet the ESQS.</p>	<p>It is suggested that this clause be revised to indicate that the reuse of salt-impacted soil would be allowable at community, institutional, parkland or residential land uses based on a site plan evaluated by a QP, identifying areas and depths at which salt-impacted soil can be used without affecting existing or future anticipated vegetation.</p> <p>It is also recommended that the requirement to specify “acceptable concentrations of salt-related contaminants in these areas” be removed.</p>
	<p>The current restriction on placement of salt-impacted soil within 100 m of a surface water body would also be retained.</p>	<p>This is assumed to be an error as the proposed off-set from surface water bodies outlined in the amendment is greater than the current 30 m off-set in the Soil Rules.</p>	<p>Clarification</p>



Amendment No.	Proposed Amendment	EXP Comments	Proposed Action
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)	Allow soil from different Project Areas to be mixed into one stockpile if there is confidence that the soil being placed in the same stockpile is of similar quality given the use of the Project Area it was excavated from and if there is no evidence of contamination. Soil tested would continue to remain separated from soil that is untested. Remove the requirement that soil needs to be going to the same Reuse Site (Receiving Site) if it is mixed as stated above.	The majority of municipal works depots (that are used as local waste transfer facilities for temporary storage of excess soil) primarily receive small amounts of excess soil from numerous project areas (for example 10-20 m ³), from emergency works like watermain repairs, and it is not feasible or necessary to keep soil segregated in the currently described manner. Furthermore, the requirements will be a large financial burden on the municipalities if piles from different Project Areas must remain segregated until testing is completed.	The allowance should also be included in the Soil Rules for Local Waste Transfer Facilities.
4) Hauling record exemptions and clarifications (section 18 of the Excess Soil Regulation)	iii. clarify that the contact information (phone number and email address) be provided for the person at the Project Area who can be contacted to respond to inquiries regarding the load of soil, and the name and contact information for a person at the Reuse Site (Receiving Site) who can confirm their consent to receive that soil.	If the excess soil from the Project Area has been characterized to meet different standards or the Reuse Site acceptance is limited (i.e. area, depth, soil type), the location of where within the Project Area the excess soil was excavated should be specified on the Hauling Record. Including this information would provide the Project Leader with assurance that only appropriate excess soils from their Project Area has been directed to the approved Reuse Site. Additionally, this would increase Reuse Site's willingness to consider import from Brownfield Sites where some but not necessarily all of the excess soil from the Project Area may be of suitable quality.	It is recommended that for Project Area's where the excess soil has been characterized based on location and/or depth to meet different excess soil quality standards, the locations within the project area where the soil was excavated should be included on the hauling record.
B. Additional clarifications are also proposed respecting the information that is provided within a hauling record, as follows.			
b. Amend section 18(1) in the following ways:			
5) Exempt landscaping projects at enhanced investigation Project Areas from the reuse planning requirements (Schedule 2 of the Excess Soil Regulation)	Landscaping projects are limited to providing landscape care and maintenance services, installing trees, shrubs, plants, lawns or gardens, and the construction of walkways, retaining walls, decks, fences and ponds.	The volume exemption of 100 m ³ will apply to very few projects. The type of work and location and extent of the excavation within the Project Area are more important considerations in this scenario than the overall volume. For example, pavement repair and resurfacing at an industrial site typically only involves very shallow excavation but would generally exceed 100 m ³ . Many industrial sites have large parking areas and other hardscaped areas may not in proximity to actual APEC identified on the Project Area and viewed in isolation of the entire Project Area would be considered under commercial use.	A volume exemption of less than 2,000 m ³ would relieve the administrative and cost burdens on these types of routine small projects. Landscaping projects at enhanced investigation sites should be exempted from the reuse planning requirements, provided the location and depth of proposed excavation do not fall within identified APECs. Pavement rehabilitation and resurfacing should be included under the definition of landscaping projects.
Add an exemption from the reuse planning requirements for landscaping projects excavating soil at a low-risk part of an enhanced investigation Project Area (such as an industrial site), as follows:			



Amendment No.	Proposed Amendment	EXP Comments	Proposed Action
7) Clarifying sampling and analysis requirements (Section B of Part 1 of the Soil Rules	<u>Record of Site Condition (RSC) sites</u> : Clarify that Phase 2 Environmental Site Assessments (ESAs) prepared for an RSC site are a type of past report that can be used for the purposes of meeting the sampling and analysis requirements for excess soil.	There is the potential that this clarification without appropriate qualification will be misleading and Phase Two ESA reports will be mistakenly considered an appropriate study for excess soil characterization even though the report was not prepared for that purpose and/or the data was not evaluated against the appropriate ESQS.	It is recommended that the clarification specify that the "data" obtained as part of a Phase Two ESA report or other past reports can be used for the purposes of meeting the sampling and analysis requirements for excess soil.
9) Other clarifications and corrections	Clarify Section 3 by listing other types of sites that may directly transport soil to a Reuse site (Receiving Site) (e.g., clarify that Class 1 sites includes a residential development soil depot) without being designated waste.	Since the allowable temporary storage sites are not aggregated in one place in the Regulation or Soil Rules, there is a lot of confusion about excess soil temporary storage options.	It would be beneficial for the requirements and limitations for each type of temporary storage site be clearly outlined in the Soil Rules.
The following proposed amendments provide clarifications to assist with greater understanding of the regulatory requirements, without changing the general policy intent, including the following:		Further, as of January 1, 2025 will forbid the deposit of excess soil meeting ESQS at landfills. The MECP has indicated informally that the criteria that will be used to determine compliance with this clause will be Table 2.1 RPI ESQS, however this standard is not referenced in the Regulation.	Prior to the implementation of this clause, the Regulation or Soil Rules should be revised to indicate the (minimum) applicable criteria.
		It is unclear why crushed rock from a licensed Pit or Quarry is considered exempt from the Regulation and can be imported to a site without verification of quality. However, virgin crushed bedrock, not identified as an APEC from a development project is considered soil and must adhere to the Soil Rules and ESQS.	The applicable exemption for crushed rock from a licensed pit or quarry should apply to virgin crushed rock from non-APEC areas of a Project Area.
		The background concentrations of regulated parameters within native bedrock deposits in Ontario are commonly known to exceed the applicable excess soil quality standards, specifically benzene and hot water soluble boron in shale. Historically, crushed shale has been beneficially reused for temporary construction staging purposes (e.g. haul road construction, drill platform construction, etc.), however under the current Rules and known background concentrations, the temporary reuse of these materials is not permissible.	Given the known local background conditions of regulated parameters within shale bedrock, the Soil Rules should include specific guidance for the appropriate risk-based use of this material (similar to the rules for the placement of salt-impacted excess soil). By doing so it is anticipated that the beneficial temporary reuse of this type of this material would limit the amount of native shale bedrock being directed to landfills. However, for use outside of the MECP derived specified risk-based conditions the characterization of the material should adhere to a regulatory compliant sampling and analytical testing program.
		ESQS should not be applicable for the temporary use of crushed rock for construction staging purposes at the material will not remain on Site following development and as such the volume independent standards accounting for a cumulative impact of the chemicals would not be applicable.	To prevent the introduction of contaminants during the temporary use of crushed rock for construction staging on a Site, such materials should be required to meet the applicable O. Reg 153/04 SCS for the Site.



Amendment No.	Proposed Amendment	EXP Comments	Proposed Action
		<p>Many Sites that have filed RCSs where their soils were deemed to have met the applicable Site Condition Standards (e.g. Table 2 SCS for RPI), however, due to the lower allowable concentrations in the ESQS the soil concentrations from an export perspective may be deemed unsuitable for beneficial reuse where generic ESQS apply. As such, finding appropriate reuse sites may not be available. It is acknowledged that a site-specific standards can be generated through the BRAT or RA, however because the onus is on the Project Area to characterize their excess soil and identify appropriate Reuse Sites, there is little incentive for a Reuse Site Owner to consider that approach. As such, unforeseen consequence is that much of these soils with only marginal levels of contaminants is being directed for landfill disposal. For example, the low ESQS for PHC F2 is resulting in an excessive amount of otherwise "clean" material being deposited at landfills, which is counterintuitive to the purpose of the Regulation.</p>	<p>To alleviate this concern, and others identified, for certain parameters the ceiling value should be aligned with allowable corresponding concentrations in O.Reg. 153/04.</p>
		<p>The volume independent standards accounting for a cumulative impact of contaminants, even with the allowance for the evaluation of data using the statistical methodology is too restrictive and resulting in the unnecessary landfilling of soil.</p>	<p>It is recommended that the statistical methodology be revised to account for the average concentration of contaminants within the soil mass, such that the average concentration does not exceed the applicable ESQS, provided that the concentrations exceeding ESQS has been delineated to ensure that the maximum contaminant concentrations on the Site have been identified.</p>