

Proposed regulatory amendments to encourage greater reuse of excess soil

Proposed amendments to O. Reg. 406/19

Ontario Ministry of the Environment, Conservation and Parks
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Environmental Registry of Ontario: #019-7636

Purpose: This document describes proposed amendments to O. Reg. 406/19, Onsite and Excess Soil Management, as part of ERO #019-7636.

Proposed regulatory amendments to O. Reg. 406/19 (the Excess Soil Regulation) and the referenced document Rules for Soil Management and Excess Soil Quality Standards (the Rules document)

1) Exempt specified excess soil management operations from a waste environmental compliance approval (ECA) subject to rules

Exempt the following types of Class 1 facilities from sections 27, 40 and 41 of the *Environmental Protection Act* resulting in an exemption from the need to obtain a waste ECA, and instead follow rules in regulation:

A. Topsoil and landscaping reuse depots

- The current retail landscaping soil depot requirements under section 7 of the Excess Soil Regulation would be amended and expanded to include topsoil reuse facilities (topsoil for this purpose would be defined as it is by Ministry of Transportation's OPSS 802 specification: Topsoil shall be a fertile loam material that is free of roots, vegetation, or other debris of a size and quantity that prevents proper placement of the topsoil. The topsoil shall not contain material greater than 25 mm in size, such as stones and clods)
- This would enable larger scale topsoil recycling and packaging (wholesale) sites to qualify for this exemption, in addition to the current retail landscaping facilities
- Excess soil at these facilities would have to be topsoil or other excess soil that can be sold to meet a realistic market demand as a landscaping product, not including general mixed earth fill, and it would not contain debris such as bricks
- Existing rules under s. 7 and the Soil Rules that apply to Retail Landscaping Soil Depots would apply to this expanded definition of depot as well, including that:
 - Excess soil could be stored and processed using low risk processes (e.g., mixing or sorting) to make or package a landscaping product
 - 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
 - Procedures must be in place to prevent adverse effects from the storage and processing of the soil
- Storage of soil would be for a maximum of one year, or longer if approved by a Director,
- Maximum volume at any one time would be limited to 25,000m³, an increase from the current 10,000m³
- These facilities would not store or process liquid soil
- Procedures would be required to be implemented to account for the source, type and likely quality of received soil and to prevent adverse

impacts from storage or processing, and records would be required of sites from which soil was received and to which soil is distributed

- Packaged topsoil and landscaping products being distributed for retail sale, and any sale of up to 25m³ to a reuse site from a retail outlet (this is an expansion of the current provision) would not be designated a waste
- 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 (note, this is a shift from the current requirement to notify the Director)

B. Aggregate reuse depots

- These would be a new type of facility/depot
- 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)
- 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.
- The aggregate brought to the depot could be stored and processed using low risk processes (e.g., mixing or sorting) to make an aggregate product
- 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.
- Storage or soil would be for a maximum of one year, or longer if approved by a Director,
- Maximum volume at any one time would be limited to 25,000m³
- These facilities would not be permitted to store or process liquid soil
- Procedures would be required to be implemented to understand the source, type and likely quality of received soil and to prevent adverse impacts from storage or processing, and records would be required of sites from which soil was received and to which soil is distributed
- 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

C. Small liquid soil depots

- These would be a new type of facility/depot

- These facilities would be able to accept liquid soil from various project areas, including from hydro-excavation and including stormwater pond sediment.
- 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
- The amount of liquid soil being stored or otherwise managed at the site at any one time would not be permitted to exceed 200m³, and the maximum amount of stored soil that was dewatered or solidified at the depot would not be permitted to exceed 2,000m³ Suggest increasing volumes for SWMF clean outs.
- Excess soil, whether liquid or solid, could not remain at the site for more than 6 months
- 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
- The liquid excess soil could be stored and processed using low risk processes, including dewatering
- For clarification, wastewater would continue to be required to be managed in accordance with requirements under the Ontario Water Resources Act (OWRA), including any requirements for sewage works approvals
- Procedures would be required to be implemented to understand the source, type and likely quality of received liquid soil and to prevent adverse impacts from storage or processing, and records would be required of sites from which soil was received and to which soil is distributed
- Material brought to these depots for storage or processing would be required to be tested before leaving the depots to ensure it is of appropriate quality for its intended receiving site, in accordance with the Soil Rules requirements, at minimum. Material from stormwater management ponds would be stored and tested separately from other material
- These facilities would be required to register a notice on the excess soil registry for compliance and general awareness purposes before commencing and upon closure of operations Recommend volume and sole project exemptions or increase volume limits.

If a Contractor moves sediment from a SWM pond cleanout to a temp site they would need to register? There is often not much room around SWMF to dry soil. Please clarify.

2) Enhanced reuse opportunities for salt-impacted soil (Section D, Part I in the Soil Rules)

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:

- 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. Generally, non-potable standards cannot be used in areas that are not serviced by municipal drinking water systems. This rule would be replaced by the following:
 - Salt-impacted soil would be permitted for 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
 - The 100m setback from existing or planned potable wells or properties expected to use groundwater wells for potable purposes would remain.
 - Allow use of salt-impacted soil at agricultural properties provided it is not in areas used for growing crops or pasturing, or in natural areas. This could enable use in specific undertakings such as building of barns, driveways, or other buildings or structures.
 - The current restriction on placement of salt-impacted soil within 100m of a surface water body would also be retained.

The following clarifications would also be made to help ensure that property owners are aware that they are receiving salt-impacted soil:

- The source site would be required to provide information in writing to the reuse site to inform them that the soil being received may be salt-impacted and the potential risks to surface and groundwater, and plant growth
- The reuse site owner would be required to consent in writing to the receipt of salt-impacted soil

Decrease the 1.5m depth that salt impacted soil needs to be buried at on new residential developments.

Recommend salt impacted soil depth changed from 1.5m to 0.9m on new developments.

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)

Amend the rules for Class 2 soil management sites to enhance their ability to be used in managing excess soil from a project leader's projects while retaining the exemption from the need for a waste ECA.

- Enable up to 25,000m³ of excess soil at a class 2 site at one time, increased from the current amount of 10,000m³ increase further. Exemptions for large scale projects?
- Replace Director's notification with requiring the filing of a notice on the Excess Soil Registry if accepting greater than 2,000m³ of dry excess soil (instead of the current requirement to notify a Director for any Class 2 site)
- 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

The project leader shouldn't need to provide the ultimate reuse site and have a signed contract before moving fill to a Class 2 site since the reason it is often moved there is because there aren't reuse sites available locally. They would still need to comply with the time limitations. Also, if the soil isn't tested you can't have a contract and confirmed reuse site.

- Clarify that, when providing a notice of setting up such a site, information on soil quality or reuse sites would be provided only if known (as soil is often brought to a Class 2 soil management site for sampling and characterization) Good addition. Makes sense.
- 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 if it is mixed as stated above.
- Other rules, such as amount of time soil can stay at these sites and other storage requirements, are not proposed to be amended.
- With regard to local waste transfer facilities, some greater alignment with Class 2 sites is proposed as they have overlapping purposes, including:
 - requiring the filing of a notice on the Excess Soil Registry if accepting greater than 2,000m³ of dry excess soil and any amount of liquid soil (instead of the current requirement to notify a Director for storing liquid industrial waste)
 - aligning storage volumes to 25,000m³ of dry soil and storage times to be 2 years (which may be extended by 5 years by a Director)

With regard to residential development soil depots, some greater alignment with Class 2 sites and other depots is proposed:

- aligning storage volumes to 25,000m³ of dry soil
- despite the requirement to only accept soil meeting certain quality standards at these sites, if the excess soil exceeds salt-related standards, it may be stored at these depots since that material could be reused based on the Rules.

4) Hauling record exemptions and clarifications (section 18 of the Excess Soil Regulation)

A. Remove the requirement for a physical or electronic hauling record for the following circumstances:

- a. Dry excess soil is being directly transported from a project area where the total amount of soil excavated is 5 m³ or less Make 10m³ (one dump truck)
- b. The excess soil being transported is a landscaping product packaged for retail sale

For the above exemption, the hauler would continue to be required to provide information about the soil verbally upon request by a provincial officer.

B. Additional clarifications are also proposed respecting the information that is provided within a hauling record, as follows.

- a. This proposal would clarify that the owner or operator of the site where the soil is being loaded for transport is required to confirm that the information provided in the hauling record is accurate, before the soil is moved off-site
- b. Amend section 18(1) in the following ways:

- i. "location" would be clarified to state "physical address, if one exists"
- ii. if soil is excavated from multiple areas (e.g., several daylighting operations at different locations) and being transported in the same truck, clarify that the hauling record would list out each of the locations that the soil was excavated from, as well as any other associated information
- 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 who can confirm their consent to receive that soil
- c. Amend section 18(3) to clarify that a copy of the fully complete hauling record be provided to both the receiving site as well as the source site
- d. Add a requirement for the owner or operator of the site where soil was loaded, to identify contingency measures to the hauler in the event that soil cannot be accepted at the intended receiving site

standard contingency across the board should be to return soil to project area. Don't overcomplicate.

5) Exempt landscaping projects at enhanced investigation project areas from the reuse planning requirements (Schedule 2 of the Excess Soil Regulation)

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:

- The exemption will apply to a project that is excavating 100m³ 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.
- 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

6) Clarify the responsibility of a qualified person (QP) when dewatering or solidifying liquid soil (section 6(4) of the Excess Soil Regulation, as well as associated rules under the Soil Rules)

Clarify the conclusion that a QP must come to when using substances to solidify liquid excess soil to avoid it being interpreted as a guarantee.

- Remove the requirement for QPs to confirm that there will be no adverse effect from the use of a polymer, or to ensure that the polymer and any potential break down products will not result in an adverse effect.
- Instead, clarify that QPs are responsible to undertake reasonable investigations and collect, compile and assess relevant information related to a polymer, including a manufacturers product information, and verify that such information does not identify concerns that an adverse effect may result from the use of these polymers, or their breakdown products, for this purpose in soil.

7) Clarifying sampling and analysis requirements (Section B of Part 1 of the Soil Rules)

The following amendments would be made to clarify current requirements related to mandatory sampling and analysis plans.

- 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.
- Record of Site Condition (RSC) sites: 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.
- Stormwater management (SWM) pond sampling: Clarify that the minimum number of samples required when excavating and segregating based on zones can be distributed equally across the zones, based on some QP judgement, and are not intended to be applied per zone.
- 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.

8) Greater flexibility for storage of soil adjacent to waterbodies (storage rules in the Soil Rules document)

Amend the soil storage rules to allow soil storage within 30m of a water body for projects excavating in or near that area to enable practical soil management, while taking steps to prevent impacts on the water body. This storage would be permitted if:

- 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; other soil could not be brought to that area
- potential adverse impacts to the water body are mitigated, including potential for silt to run-off into the waterbody

9) Other clarifications and corrections

The following proposed amendments provide clarifications to assist with greater understanding of the regulatory requirements, without changing the general policy intent, including the following:

Regulation:

- Include “operator” in provisions of the Excess Soil Regulation and Soil Rules, as needed, to clarify that operational requirements directed at project leaders could be carried out by either the project leader or the operator of the project area
- Clarify under section 3 of the regulation that if excess soil is being finally deposited at a landfill property, outside of the fill area, for a beneficial purpose (such as building berms) consistent with the waste ECA and site plan, it is not designated a waste
- Clarify section 3 by listing other types of sites that may directly transport soil to a reuse site (e.g., clarify that Class 1 sites includes a residential development soil depot) without being designated waste
- Clarify in section 3 that if the excess soil is wholly used in a manufacturing process to make products (e.g., bricks), it is not a waste and the site does not need a waste ECA to operate, this may be achieved through a reference to a similar provision already in Regulation 347
- Clarify the requirement for liquid soil transportation in section 17(3), that valves should be locked if they are part of the vehicle, to clarify that trucks with valves are not always required for liquid soil transportation
- Clarify in section 21, for Class 2 soil management sites, that written consent is not required from the reuse site if the owner of the reuse site is the same as the project leader where soil is excavated from (similar to subsection 3(2))
- Clarify clauses 1-3 of Schedule 2 paragraph 3 by replacing these with a new clause indicating that this exemption applies to excavating soil to address an emergency situation, which is the intention of these three clauses
- Clarify Schedule 2 paragraph 4 by aligning the wording with the language in subsection 8(1.1) when referring to the purpose of the project as remediation of the project area
- Other minor corrections or clarifications, including any consequential amendments

Soil Rules:

- Add “and crushed rock” where it is missing to ensure provisions apply to both soil and crushed rock as intended (e.g., in the soil characterization sections)
- 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.
- Clarify that, for the purposes of selecting the applicable standards that apply to a reuse site, a reference to a change in the use of a property does not include a reference to a change in the zoning of the property under a municipal by-law
- Add superscript “a” after the Table 1 standard for Cadmium, and update the corresponding leachate table for this parameter, for agricultural and other land use, as the background value is not based on measured background
- Other minor corrections or clarifications, including any consequential amendments