

A Detailed Analysis of the New Ontario Excess Soil Standards

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DECLARATION OF AUTHORSHIP

I, [REDACTED], confirm that this work submitted for assessment is my own and is expressed in my own words. Any uses made within it of the works of any other author, in any form (ideas, equations, figures, texts, tables, programs), are properly acknowledged at the point of use. A list of the references used is included.

[REDACTED]

[REDACTED]

PROPOSAL

INTRODUCTION:

The Ontario Government has implemented a new On-Site and Excess Soil Regulation which will have a significant impact on all construction projects that require soil movement. The information in this report will provide a review of the regulations, as well as a breakdown of positive and negative aspects of the regulation based on known experiences in the field from stakeholders implementing the soil regulations currently. The thorough analysis is meant to provide recommended updates to the regulation so that the Ministry of Environment, Conservation and Parks (MECP) can achieve the intended results and continue to protect the natural environment.

PROBLEM STATEMENT:

While the On-Site and Excess Soil Regulation intent is good, there are issues that should be evaluated and, where possible, updated in the regulation. The regulation will require update based on actual lessons learned during the implementation of construction works across the Province of Ontario. Input from Owners, Consultants managing projects and Contracting firms should be considered, as well as MECP experiences during any inspections.

METHODOLOGY:

To properly assess the positive and negative aspects of the new On-Site and Excess Soil Regulation, a thorough review of the background information on Excess Soil will be undertaken. The documents to be included in the review are the MECP Management of Excess Soil – A Guide for Best Management Practices, O.Reg 406/19 On-Site and

Excess Soil Management, and the MECP Rules for Soil Management and Excess Soil Quality Standards.

The review will also include research of the different perspectives offered by Owner, Consultant and Contractor staff in relation to benefits and challenges to the implementation of the new On-Site and Excess Soil Regulation. Where possible, actual stakeholder input will be sought out from industry experts who have recently implemented the actual regulation recently. Its important to understand that each stakeholder's role is very distinct and that there may need to be measures implemented to ensure each stakeholder is accountable along the entire path of soil movement. Clearly, the ultimate responsibility for soil movement lays with the Owner of the site. Recommendations related to the On-Site Excess Soil regulation may also assist Owners with additional clauses to be included in Consultant and Contractor contracts to ensure overall compliance with the soil laws.

The MECP perspective will also be researched to understand background reasoning on why the On-Site and Excess Soil regulation was implemented. The MECP has always been clear that the Owner and receiving site need to be aware of soil being moved, the receiving site must be approved in advance, and the soil must have ultimately been received at that approved site. Clearly, in some instances this has not occurred. The MECP is also actively trying to ensure reuse of soil, where possible, to minimize landfill impacts. As stewards of the environment, the reasoning for the On-Site and Excess Soil regulation is a sound one that maybe able to be improved on.

SOLUTION/ IMROVEMENTS:

Recommendations to improve the On-Site and Excess Soil Regulation will be based on Owner, Consultant, Contractor and Regulatory body input. The intention is to clearly identify gaps in the On-Site and Excess Soil Regulation so that the regulation can be updated to address gaps and make the actual implementation easier on all parties.

TECHNOLOGY REPORT

ABSTRACT

There are many benefits to the new On-Site and Excess Soil Regulation (O.Reg 406/19), including protection of health and the environment, reduction of illegal dumping, beneficial reuse of excess soil, and reduction of greenhouse gas emissions. The regulation will likely require updates based on actual lessons learned during the implementation of construction works across the Province of Ontario. Input from Owners, Consultants, and Contracting firms should be considered. The intention of this report was to review related legislation, seek stakeholder input and provide recommendations for improvement to the Ministry of Environment Conservation and Parks (MECP) or the project Owner.

INTRODUCTION

The Ontario Government has implemented a new O.Reg 406/19 which will have a significant impact on all construction projects that require soil movement. In 2016 the MECP released the Framework for the Excess Soil Regulation and began getting stakeholder input. Several versions of the regulatory package were released between 2016 and 2019 and the final package was released on December 4, 2019 with the intent that certain sections would be in effect that day and staged implementation extending to 2026 to allow time for the industry to adjust and prepare. The planning requirements were then put on pause until January 1, 2023. The information in this report will provide a review of the regulations, as well as a breakdown of positive and negative aspects of the regulation based on known experiences in the field based on input from various stakeholders implementing the soil regulations currently. The review and analysis of O.Reg 406/19 outlined in the proposed submission is meant to provide recommended

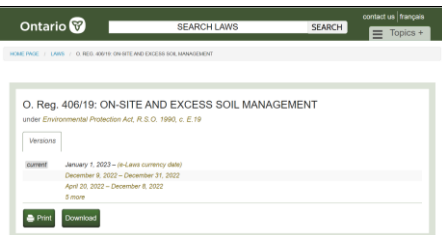
updates to the regulation so that the MECP can achieve the intended results and refine and enhance the current framework where it makes sense and continue to protect the natural environment.

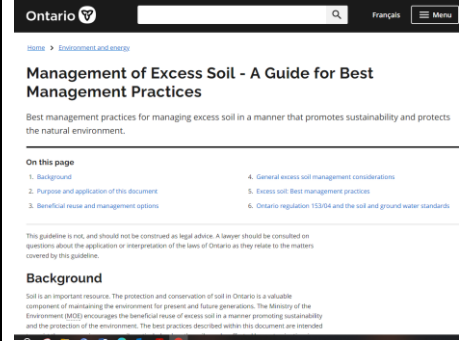
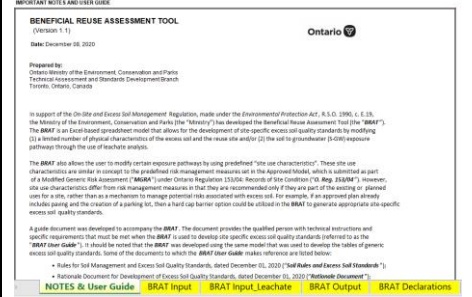
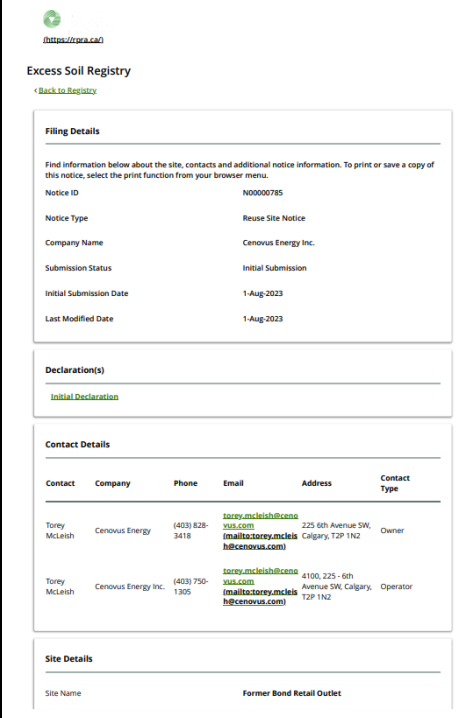
The MECP is also actively trying to ensure reuse of soil, where possible, to minimize landfill impacts and reduce greenhouse gases. As stewards of the environment, the reasoning for the O.Reg 406/19 is a sound one that maybe able to be improved on.

METHODOLOGY

To properly assess the positive and negative aspects of the new O.Reg 406/19, a thorough review of the background information on Excess Soil was undertaken.

Table 1 – Excess Soil Documentation Reviewed

<p>O.Reg 406/19 (Government of Ontario, 2019)</p>	<p>https://www.ontario.ca/laws/regulation/190406</p>	
<p>Rules for Soil Management and Excess Soil Quality Standards (Rules) (Government of Ontario, 2020)</p>	<p>https://www.ontario.ca/page/rules-soil-management-and-excess-soil-quality-standards</p>	

<p>Management of Excess Soil – A Guide for Best Management Practices (Government of Ontario, 2016)</p>	<p>https://www.ontario.ca/page/management-excess-soil-guide-best-management-practices</p>	
<p>Beneficial Reuse Assessment Tool (BRAT) (Government of Ontario, 2020)</p>	<p>https://prod-environmental-registry.s3.amazonaws.com/2020-12/Beneficial%20Reuse%20Assessment%20Tool_BRAT%20%28Dated%2008%20Dec%202020%29_0.xlsx Supported further through Reg 153 (RSC), Reg 347 (Waste Management)</p>	
<p>Excess Soil Registry (Resource Productivity & Recovery Authority, 2023)</p>	<p>https://excesssoilnotices.rpra.ca/s/?language=en_US</p>	

Its important to understand that each stakeholder’s role is very distinct and that there may be measures needed to ensure each stakeholder is accountable along the entire path of soil movement. Typical stakeholders may include the Project Owner, Project Leader, Consultant Qualified Person (QP), Contractor, hauler or trucking companies, and MECP

representatives. Stakeholder input from Consultant and Contractors was sought to tease out benefits and challenges faced by those implementing the new legislation. At the time of writing this report, direct input was received from Consultant [REDACTED]; [REDACTED] acts as a Risk Assessor and QP with working knowledge of O.Reg 406/19. Additional stakeholder input was reviewed through the Environmental Registry of Ontario posting and responses.

Clearly, the ultimate responsibility for soil movement lays with the Owner of the site. Recommendations related to the O.Reg 406/19 have been documented, along with recommendations for the MECP so that additional clauses can be incorporated in the relevant legislation. Recommendations have also been recommended for Owners to improve Consultant (RFP) and Contractor (RFT) Contracts in relation to O.Reg 406/19.

Four (4) common themes/ discussion areas were used for the assessment detailed below:

- A) Roles and Responsibilities
- B) Approvals and Quality
- C) Quantity, Tracking and Movement of Material
- D) Other

RESULTS/ DATA / ANALYSIS

Please refer to Appendix B for a Summary Table of Issues and Recommendations discussed below.

A. Roles and Responsibility

The overall responsible party is the Project Lead. This is the person that the regulation defines as the person ultimately responsible for making decisions relating to the planning

and implementation of the project. (Government of Ontario, 2019) This person is responsible for ensuring the following occur under O.Reg 406/19:

- Registry Filing - Section 8 (.1) and 16
- Assessment of Past Uses (APU) - Section 11 (.1)
- Sampling, Analysis Plan (SAP) and Soil Characterization Report (SCR) - Section 12 (.1)
- Excess Soil Destination Assessment Reports (ESDAR) - Section 13 (.1)
- Excavation Procedures - Section 23 (.1)

The O.Reg. 406/19 definition of the Project Lead is not clear, but the duties typically fall under the capacity of a Project Manager role. This position is responsible to retain a Consultant for design and contract administration, as well as a Contractor for construction implementation. The main issue is that there are circumstances where the Project Lead does not have the authority to make all decisions on a project (e.g., significant additional budget, initial approval of project scope, contaminated soils or larger issues that require a co-ordinated response, etc.). The MECP may wish to clarify examples of the Project Lead within O.Reg 406/19 and the Rules.

The QP is also a key person in a project and this person is defined under O.Reg 406/19 and Section 5 of O.Reg 153/04 as being either a P.Eng or a P.Geo with specific experience in the designated work (e.g., excavation or import of soil, assessment of contamination). (Government of Ontario, 2019) The Project Lead is to ensure that the QP approves the following:

- APU - Section 11 (1)
- SAP and SCR - Section 12 (1)

- ESDAR - Section 13 (1)

The main issue with this definition is that it does not clarify if the QP is an Owner, Consultant or Contractor role. An Owner or Consultant QP may have a very distinct perspective from Contractor QP, as each group has differing motivations which may impact the quality of the review / submission. Based on previous experience implementing the requirements of the O.Reg 406/19 prior to it being in effect, it is highly recommended that Owners seek to retain a Consultant QP to act on their behalf during design and construction phases of a Project. In this case, there would be a Consultant QP to undertake preliminary assessment/ characterization of the soil, development of a Soil Management Plan, and audit sampling during construction to ensure the Contractor QP information is in line.

B. Approvals and Quality of Material

A recent change proposed by the MECP to O.Reg 406/19, is to remove approval and registry information required for lower risk sites. (Government of Ontario, 2018 and 2023) Based on recent experience, lower risk sites can pose an issue to the quality of reuse material proposed by the Contractor QP. All sites should be assessed, approved and tracked following the requirements of O.Reg 406/19. Ultimately, the Project Lead is the individual responsible, and this person requires all information to make an informed decision.

Based on experience, one item that becomes apparent is that the Contractor's soil import and export activities are based on opportunities that become available at other sites they may have a link to. This is great based on a reuse perspective, but sometimes the financial or time constraints take priority for a Contractor and they attempt to push

acceptance of last minute alternate sites without allowing the Owner or Consultant QP time to properly assess the new proposed site(s). Also, sometimes there are differing perspective between the Consultant QP reviewing the submission, and the Contractor QP who is pushing for acceptance. For an Owner, the Consultant QP is needed to verify that the material removed or imported is acceptable to the site based on past uses, soil sampling results and intended use; there should be no short cuts allowed. A tool that Owners can use to verify material is the Excess Soil Registry. (Resource Productivity & Recovery Authority, 2023) This tool has limitations, including that Owners are not able to easily locate or check destination sites proposed by Contractors to ensure they are acceptable to the Owner. As noted by [REDACTED], the Excess Soil Registry Search tool only allows users to search by keyword or general “Community”, with only large reuse sites being registered (e.g., >10,000 m³). ([REDACTED], 2023)

Additionally, there are alterations proposed by a Contractor for Means & Methods (M&M) to save time and money by proposing alternative ways to complete the works. The Contractor may propose alternative methods but they should still be aware that they are to follow requirements of relevant legislation (e.g., temporary storage solutions like using one (1) pit to store clean and contaminated soils together - increasing contaminated soil while easing Contractor testing and transfer work).

Some additional issues noted by [REDACTED] ([REDACTED], 2023) include:

- The fact that destination sites need to agree in writing that they are willing to accept the soil, but O.Reg 406/19 does not clearly define what this means.
- There is no clarity on how Owners are to handle impacted soils from remediation.

- Liquid soil was previously treated as liquid waste and was removed by vac trucks. Now liquid waste is considered an excess soil but detail is required on how the material is to be handled or beneficially reused.
- Planning requirements under O.Reg 406/19 are not clear for destination sites. Class 1 Destination sites do not require an APU or SAP but do require characterization under Class 1 ECA and ESDAR. While Landfill destinations require an APU, an SAP, SCR and ESDAR.

C. Quantity, Tracking and Movement of Material

One of the major deficiencies in the O.Reg 406/19 is how to address a large project that may have multiple reuse sites which the Contractor intends to immediately incorporate into the worksite. There is a potential that an improper soil load has been brought to the reuse site and caused additional soil contamination through the mixing of soil from multiple sites. The Owner Project Lead is responsible to ensure soil from multiple sites are clearly documented to ensure that any loads can be removed from site easily, as defined in Section 19 (.4) – Deposit of Excess Soil, O.Reg 406/19. (Government of Ontario, 2019)

Based on recent project observation, and review of the Environmental Registry (Government of Ontario, 2018 and 2023), there is a difference in tools a professional soil management firms uses (e.g., GFL Environmental – GPS tracking, record of weight, movement, time, driver, receiver) when compared to a residential or lower risk source site, which may use rudimentary tools for tracking (e.g., excel sheet – truckload based estimate, manual entry of time/ driver, etc.). Such differences make it difficult for the

Owner Project Lead to ensure all required information under O.Reg 406/19 is being provided and that is accurate.

The final issue on any project is the number of staff available to track soil import and export activities while other construction project work is occurring at the same time. It is difficult for a Contractor Site Supervisor, Consultant Site Inspector, QP, to be in two (2) places at once. If there is no dedicated member to receive and sign-off on trucks, there may be errors on information recorded by other staff present. A consistent tool (e.g., professional tracking tools) would be beneficial for properly recording site activities.

D. Other Items for Consideration

The main component missing from the O.Reg 406/19 is a periodic inspection of the program by the MECP. While the Owner Project Lead can do periodic auditing of the project information received from the Consultant and Contractor QP (e.g., following trucks to ensure going to site, checking records), the Owner will not have knowledge of larger non-conformances of O.Reg 406/19 that MECP Inspection and Enforcement staff maybe aware of.

Additionally, O.Reg 406/19 does define information what is required for submission to the Owner, but there is no standard Template for these submissions. A MECP approved Template would ensure consistency of information provided and would remove any interpretations that stakeholder may make in their individual templates. It should be noted that while this would assist Owners and the MECP with tracking, those having to fill in the templates may feel increased administrative impact. (Ontario Sewer and Watermain Construction Association, 2017)

Finally, the MECP and Owners should be aware of cost implications and propose when soil assessment occurs. It's far more costly to do an assessment during the Construction phase by a Contractor. Proper use of Owner funds would mean that Owners should consider assessment by a Consultant QP during the Design phase.

CONCLUSION

In general, the approach taken by the MECP to ensure soil is viewed as a resource rather than a waste is an important one. That said, the MECP's O.Reg 406/19 and associated Rules do need to be improved upon based on stakeholder input and lessons learned from recent projects that have implemented O.Reg 406/19. Ultimately, everyone involved in the soil management needs to work together to ensure that waste is minimized and beneficial reuse is achieved, but this can only be done together. There are always opportunities for improvement that need to be considered in the broader perspective, and changes made where possible. In this case, the recommendations below are for consideration by the MECP related to the O.Reg 406/19. There are recommendations provided to Owners to improve their soil import and export activities while staying in compliance with O.Reg 406/19. The intent of this report was to provide recommendations that could be carried forward to the MECP for future Environmental Registry comments related to O.Reg 406/19 or for inclusion in RFP and RFT Contract documents by the Owners.

RECOMMENDATION

Below are some high level recommendations to improve the implementation of the O.Reg 406/19 activities by all stakeholders.

A. MECP Clarifications

- **O.Reg 407/19**

- Section 1, O.Reg 406/19 – clear definition of Project Lead vs. Owner.
- Clarity about remediation projects that remove soil from site (e.g., unlikely to be exempt unless <100m³) and if that Project Lead must register a project area notice even if all soil is going to landfill or Class 1 Site. (████, 2023)
- Update O.Reg 406/19 and Rules to include remediation sites. (████, 2023)
- Update O.Reg 406/19 to include handling, characterization and reuse of liquid (e.g., hydrovac) soil. (████, 2023)
- Clarity on panning requirements linked to destinations sites. (████, 2023)
- MECP may wish to prescribe equipment that offers more precise monitoring and recording of loads moved (e.g., GFL Environmental vs. Rudimentary manual records).

- **Rules for Soil Management and Excess Soil Quality Standards**

- The Tables 1 – 9.1 and Appendix 2 need to be reviewed and the wording revised to prevent scenarios where better quality soil is replaced with poorer quality soil.
- MECP should include language in the Rules that address Contractor Means & Methods to ensure the Contractor has clear direction that any change on site, under their recommendation, is to meet O.Reg 406/19.
- The MECP should provide standard templates and filled in examples, for all O.Reg 406/19 requirements.

- The Rules and O.Reg 406/19 should be updated to reflect the scenario where a contractor places multiple loads from various reuse sites and blends the material. The recommendation is that there is a map or visual diagram to show where the various reuse sites have been placed on the receiving site (e.g., load, source material location, time of placement, receiving site specific location for final placement).
- It is recommended that the Rules be updated to reflect how actual construction projects work. MECP are recommended to seek stakeholder (Owner, Consultant, Contractor, Industry) input related to how typical on site truck and construction works monitoring occurs. MECP expectations may be difficult to implement so a review of current construction practices may assist the MECP.
- **MECP Inspection Programs**
 - MECP Excess Soil Registry should be periodically reviewed to ensure information is uploaded and approvals are in place.
- **MECP Excess Soil Registry**
 - An easier search tool is recommended to facilitate search of reuse sites.
 - All soil reuse sites are recommended to be recorded in the Excess Soil Registry to assist the Owner Project Lead in verifying information required to allow approval of the site.
 - A listing of reuse sites accompanied by a map would assist with matching sites. It is also recommended that a listing of Class 1 site, type of site and

the associated ECA (Soil Bank or Soil Processing) would assist with site matching; this will assist with the process of selection of destination sites.

B Owner

- Owners are recommended to review O.Reg 406/19 and develop procedures and training for staff who are responsible for soil movement.
- Owners should determine if there is a benefit to retain a Consultant QP in design to avoid issues during construction.
- The Owner or Consultant should follow a few trucks to confirm the truck is coming or going to the location where the Contractor QP stated it was.
- With respect to soil, the Owner should do all assessment up front during the design phase so that a full picture of project scope is possible. Additionally, adequate contingency budget should be allocated to the design and construction project phases to cover unknowns.

C Owner Contract Language (RFP or RFT or RFPQ)

- **RFP**
 - Generic Owner Contract language for expectation of Consultant QP are to be clearly documented for all phases of a project.
 - Owner Procurement and Legal Departments may wish to look at Insurance requirements to determine if any alteration to contract clauses is required (e.g., Professional Liability for QP, Environmental Liability, General Liability, Property Insurance, etc.). (Association of Consulting Companies Ontario, 2021)

- **RFT**

- Generic Owner Contract Language for expectations of Contractor QP are to be clearly documented. A component to be considered is the role of the Consultant QP vs. the role of the Contractor QP, including who has ultimate authority for soil movement approvals under the project. This language would then be tailored once the Consultant QP confirms soil quality and recommends the path forward for the project team.
- Owner Construction (RFT) language should clearly stipulate a timeframe for submittal submission and review for new disposal or reuse site; the Owner Project Lead and Consultant QP must be allocated enough time to review proposals without being threatened with delays for last minute alternate requests made from previously approved locations. Where last minute changes are necessary, language in the contract should stipulate no delay on the part of the Contractor due to last minute changes in soil sites and that the contractor is not authorized to allow movement of soil until the information has been verified by the respective QP's and approved by the Project Lead. Deviation from this should be documented and communicated to the relevant regulatory body where applicable.
- Owner Construction RFT should state Means & Methods costs related to soil changes on site (e.g., temporary storage, altering separate piles to single pile with increased contamination) are the responsibility of the Contractor, are to follow relevant legislation, and are the reportable under the MECP if increased contamination results.

- Owner, where MECP does not designate, should specify more specific measuring and monitoring tools for soil movement. If more detailed information is required to confirm movement of soil, the Owner should specify the tools required to be used to provide the level of confidence needed to allow the owner to approve movement of material to/from reuse sites.
- Owner Procurement and Legal Departments may wish to review Insurance requirements to determine if any alteration to contract clauses is required (e.g., Professional Liability for QP, Environmental Liability, General Liability, Property Insurance, Contractor Pollution Legal Liability, Automobile Liability due to transport of material, etc.). (Association of Consulting Engineering Companies Ontario, 2021)
- **RPFQ**
 - Scoring keys for both RFP and RFT need to include a component for assessing past soil movement projects as a part of assessing suitability of the proponent for the work.
 - Scoring of sub-contractor staff should be included for key activities, including soil movement. The recommendation is that the Contractor is to provide Sub-Contractor soil movement experience, in line with the expectations under O.Reg 406/19.

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APPENDIX A – [REDACTED] Comment

Regulation / Rule Reference	Issue	Recommended Change
<p>Owner may not be able to easily locate or check that Destination Sites proposed by contractor are suitable or acceptable to owner.</p> <p>Added this line to table provided for review/input.</p>	<p>Current registry does not allow easy searching for Reuse sites by proximity – only by keyword or listed by “Community”. Only large (>10,000m³) reuse Sites need to register.</p>	<p>A listing of registered Reuse Sites accompanied by map would assist with matching Sites. Also, listings of Class 1 Site and type of Site/ECA (Soil Bank or Soil Processing) to assist with Site matching on RPRA would aid the process of the selection of Destination Sites.</p>
<p>The requirement for Destination Sites to agree in writing to take the soil.</p> <p>Added this line to table provided for review/ input.</p>	<p>“Agree in writing” is not clearly defined</p>	<p>This should be further clarified or a standard template developed for use by Owner/Destination Sites to have record.</p>
<p>Remediated soil requiring disposal or treatment to be removed from the Site</p> <p>Added this line to table provided for review/ input.</p>	<p>The regulation does not provide clarity on the handling of impacted soils from remediation.</p>	<p>Communication with the MECP has indicated that a Remediation Project that will be removing soil from the Site (and would therefore very unlikely to be exempt unless <100m³) must register a project area notice even if all soil is going to landfill or Class 1 Site. Additional clarification is required for this as the only reference in the Reg and Soil Rules is to heavily impacted soils and further reference to remediation sites should be considered.</p>
<p>Liquid Soil</p> <p>Added this line to table provided for review/ input.</p>	<p>Previously liquid soil was often treated by owners as liquid waste (vac trucks) but it is now considered Excess Soil under the Reg (unless otherwise classified as waste)</p>	<p>Although some clarification has been provided, additional clarity on handling hydrovac material and how this should be characterized if required would be beneficial.</p>
<p>Clarity on Planning Requirements for different types of Destination Sites</p> <p>Added this line to table provided for review/ input.</p>	<p>Class 1 Sites as Destination do not require an APU or SAP (but do require some characterization as per Class 1 ECA and Destination report) Landfill as destination do require APU and SAP (and also characterisation as per ECA and Destination report). Class 1 Sites are not the same as Landfills.</p>	<p>Additional clarity regarding minimum Planning requirements linked to different types of Destination Sites (assuming no other exemptions apply) would be beneficial.</p>
<p>N/A – not defined in O.Reg 406/19 or Rules for Soil Management and Excess Soil Quality Standards</p> <p>Agreed with statement (related to “written” agreement to destination site above) provided in table for review / input.</p>	<p>There is no standard template for the various items available to Owners/ Consultant / Contractors. This would ensure consistent info is provided and would remove any open / unclear requirement from an Owner/ Consultant / Contractor’s interpretation.</p>	<p>MECP – if standard templates for the various touch point/ communications are available, it would make it easier for Owner, Consultant and Contractor staff to meet MECP expectations.</p>

APPENDIX B – Summary Table of Issues and Recommendations

Area/ Theme	Regulation / Rule Reference	Issue	Recommended Change
Roles & Responsibilities	<p>“Project Lead” – person or persons who are ultimately responsible for making decisions relating to the planning and implementation of the project.</p> <p>Section 1, Interpretation - O.Reg 406/19</p> <p>Some items this position is responsible for:</p> <ul style="list-style-type: none"> • Registry filing (8.(1) and (16.)) • APU (11.(1)) by QP • SAP and SCR (12. (1)) by QP • ESDAR (13. (1)) by QP • Excavation Procedure (23. (1)) 	<p>Project Lead is quasi defined – generally, it’s the Owner of the project. Certain Owners have different level of authority. Also, some owners may not understand soil and related requirements and typically retain a Consultant for Design / Contract Administration/ Site Inspection, and Contractors for Construction Implementation.</p>	<p>O.Reg 406/19 – Recommend update to specify examples of project leads (e.g., PM, Sponsor, Owner rep) – e.g., some cases may require top Owner representative to decide on works to be done, based on budget and other projects.</p> <p>Owner should review the O.Reg 406/19, and develop a defined procedure / training session for staff who may be responsible for excess soil on their projects to ensure a consistent approach across the organization.</p> <p>Owner Contract – Consider inclusion of language in Design (RFP) and Construction (RFT) Contracts for:</p> <ul style="list-style-type: none"> • Design / Construction – Consider to clearly spell out roles for who will be responsible for various Excess Soil Requirements (e.g., Project Lead vs. Consultant QP vs. Contractor QP).
	<p>“Qualified Person” means a) qualified person within meaning of section 5 of O.Reg 153/04.</p> <p>Section 1, Interpretation - O.Reg 406/19</p>	<p>QP retained likely under the Contractor. Some owners would likely benefit from Owner QP who confirms submissions from Contractor QP meet MECP Excess Soil Regulation requirement (e.g., Soil quality from source/ receiving site, Soil Management Plan, Audit and sampling). If the Owner does not have proper review, there is potential that corners maybe cut to minimize effort.</p> <p>Under O.Reg 153/04, this is a P.Eng or P.Geo with specific experience in the work designated (e.g., excavation, import of soil, assessment of contamination, use of O.Reg 406/19, etc.)</p> <p>In certain circumstances, Consultant is responsible for meeting legal requirements and contract development / implementation. Under the Excess Soil Regulation, the QP appears to not be clearly defined as to who do what. In certain situations, there are short cuts on projects and having the Consultant as the responsible party makes sense.</p> <p>Where Consultant is QP undertaking initial soil characterization and development of the Soil Management Plan, the Contractor may attempt to minimize requirements where possible. Where Excess Soil Regulation and Rules and the Contract are not clear on responsibility between the Consultant QP and the Contractor QP, there may be gaps in responsibility and who has final authority / say on whether an item meets the MECP Excess Soil Regulations and Rules.</p>	<p>O.Reg 406/19 – Recommend update to specify Owner/ Consultant QP vs. Contractor QP.</p> <p>Owner Contract – Consider inclusion of language in Design (RFP) and Construction (RFT) Contracts for:</p> <ul style="list-style-type: none"> • Design – Consultant QP who will conduct preliminary assessment of soil, develop a Soil Characterization and Soil Management Plan that can be incorporated into the Construction (RFT) package. The scope of work should include Construction assistance/ input, verification of Contractor QP Submissions (e.g., Soil Destination Report, Approvals, review of tracking info, update of Registry info for the Project Lead, etc. • Construction – Contractor QP language need to be very clear that the Contractor QP is to follow O.Reg 406/19 and Rules for Soil Management and Excess Soil Quality Standards. The Contractor QP submissions must be reviewed and approved by the Consultant QP for completeness/ accuracy; ensure this is defined in the contract. <p>***In both cases, when assessing Proposals, ensure scoring key has clear language that examples related to soil removal projects are to be provided.</p>
Approval/Quality	Table 1, 2.1, 3.1, 4.1, 5.1, 6.1, 7.1, 8.1, 9.1, Appendix 2 - Rules for Soil Management and Excess Soil Quality Standards	Quality of material removed, may be better then the quality of the reuse material proposed by the Contractor QP, but it still	MECP language related to contaminated or parameters above the allowable/ detectable limit should be reviewed. There should be regulatory language that

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		meets the Excess Soil Regulation and Rules for Soil Management and Excess Soil Quality Standards – Table 3.1.	soil stays if the import material is lower quality then what was intended to be removed.
Approvals/ Quality	N/A	Removal assessment / approval low risk sites Based on recent example – this places complete risk on owner and minimizes contractor responsibility to provide proper soil to site.	MECP should consider that all sites follow the regulation and Excess Soil Registry requirements for full transparency.
	Section 18 - Hauling Records (18), Section 19 - Deposit of Excess Soil - O.Reg 406/19	Consultant QP may see regular changes by the Contractor QP related to soil export location (e.g., landfill or reuse sites) and source locations. The Consultant QP, if acting on behalf of the owner, is needed to verify the material is acceptable for the receiving site, that the material is not detrimental, and that proper approvals are in place. With last minute changes, the Contractors can demand immediate allowance for the new location as their QP deems it ok, but the Consultant QP requires time to properly assess to ensure MECP Excess Soil Requirements are met.	MECP Registry changes should be reviewed periodically to verify users with a significant number of changes to ensure proper approvals are in place, the registry info is proper, etc. Owner Construction (RFT) language should clearly stipulate a timeframe for submittal submission / review for new disposal or reuse sites to allow the Contractor QP and Consultant QP time to properly review the new site, so that Excess Soil requirement can be verified (e.g., Source Site should be comparable parameter wise to Reuse /Receiving site – parameters should not be worse). Where last minute changes are necessary, language in the contract should stipulate no delay on the part of the Contractor due to last minute changes in soil sites and that the contractor is not authorized to allow removal / import of material not verified by the respective QP's. Deviation from this should be documented and communicated to the relevant regulatory body where applicable.
	Section 19 – Deposit of Excess Soils – O.Reg 406/19	Contractors often propose alternative measures to the contract to save time/ money. Ultimately, any change must be in line with O.Reg 406/19 and Rules for Soil Management and Excess Soil Quality Standards. Contractor alters Contract terms using Means & Methods clause. They are responsible to ensure regulatory requirements are still met but when it comes to soil, this could be an issue leading to cost / approvals, etc. Contractor may minimize some requirements to save on cost if they are responsible. Means & Methods should not make it easier on the Contractor but contaminate more soil (e.g., mixing soil into 1 pit for easier removal, rather than sort and transfer to appropriate site).	MECP – the O.Reg 406/19 and Rules for Soil Management and Excess Soil Quality Standards to ensure Means & Methods is clearly included. Owner Construction RFT's should clearly state all Means & Methods costs related to soil changes on site (e.g., temporary storage, altering separate piles to single pile – with increased contamination) are the responsibility of the Contractor and are reportable under the MECP if increased contamination results.
	Not clearly defined.	Contractors retain 3 rd parties to do certain works – requirement to ensure Soil requirement are met, verified by Contractor QP and Consultant QP.	Owner Construction RFPQ should include review of sub-contractor staff if they are expected to have some level of experience with soil removal following the new Excess Soil requirements.
	Section 8 – Registry – O.Reg 406/19	Owner may not be able to easily locate or check that Destination Sites proposed by contractor are suitable or acceptable to owner. Current registry does not allow easy searching for Reuse sites by proximity – only by keyword or listed by "Community". Only large (>10,000m ³) reuse Sites need to register.	A listing of registered Reuse Sites accompanied by map would assist with matching Sites. Also, listings of Class 1 Site and type of Site/ECA (Soil Bank or Soil Processing) to assist with Site matching on RPRA would aid the process of the selection of Destination Sites.
	Section 20 – Beneficial Reuse Assessment Tool – O.Reg 406/19	The requirement for Destination Sites to agree in writing to take the soil.	This should be further clarified or a standard template developed for use by Owner/Destination Sites to have record.

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		<p>“Agree in writing” is not clearly defined</p> <p>Remediated soil requiring disposal or treatment to be removed from the Site</p> <p>The regulation does not provide clarity on the handling of impacted soils from remediation.</p>	<p>Communication with the MECP has indicated that a Remediation Project that will be removing soil from the Site (and would therefore very unlikely to be exempt unless <100m³) must register a project area notice even if all soil is going to landfill or Class 1 Site. Additional clarification is required for this as the only reference in the Reg and Soil Rules is to heavily impacted soils and further reference to remediation sites should be considered.</p>
Approval / Quality	Section 6 – Excavated Soil Processed at Project Area, Section 17 – Transportation of Soil Excess Soil – O.Reg 406/19	Liquid Soil - Previously liquid soil was often treated by owners as liquid waste (vac trucks) but it is now considered Excess Soil under the Reg (unless otherwise classified as waste)	Although some clarification has been provided, additional clarity on handling hydrovac material and how this should be characterized if required would be beneficial.
		<p>Clarity on Planning Requirements for different types of Destination Sites</p> <p>Class 1 Sites as Destination do not require an APU or SAP (but do require some characterization as per Class 1 ECA and Destination report)</p> <p>Landfill as destination do require APU and SAP (and characterisation as per ECA and Destination report). Class 1 Sites are not the same as Landfills.</p>	Additional clarity regarding minimum Planning requirements linked to different types of Destination Sites (assuming no other exemptions apply) would be beneficial.
Quantity, Tracking, Movement of Materials	Section 19 (.4) - Deposit of Excess Soil – O.Reg 406/19	<p>Owner responsible to ensure soil from multiple source sites are clearly mapped / labelled for the receiving site.</p> <p>E.g., Soil import map for where material placed on large site. There may be an issue when multiple sites dumped in same location. If Contractor smooths out material and imports more material from other locations and sampling comes back adverse, then removal of additional soil may be required if not properly tracked, sorted, contained.</p>	O.Reg 406/19 – Recommend that the O.Reg 406/19 and associated Rules for Soil Management and Excess Soil Quality Standards be updated to reflect the scenario where a contractor places multiple loads from various reused sites and blends the material. Recommendation is that the regulation is clear that a map of the soil placed on site is tracked (e.g., load, source material, time of placement) so that if the requisite sample is taken and fails reuse parameters, the entire location of where the material was placed can be removed.
	Section 19 (.4) - Deposit of Excess Soil and Schedule 1 – O.Reg 406/19	Owner responsible for tracking of soil movement. Certain firms have very specific measuring / monitoring tools (e.g., GFL – GPS tracking, recording weight, movement, etc.) while other source sites, may have rudimentary tracking (e.g., truck load base on estimate truck size, manual entry time/ tracking/ person).	<p>The O.Reg 406/19 and Rules for Soil Management and Excess Soil Quality Standards are very clear. It may be beneficial for the MECP to provide a template of the various items that are required to be tracked, verified and signed off on so that there is a consistent expectation across various projects in Ontario.</p> <p>Owner Construction RFT language is to be verified during Design.</p>
	Section 1, Interpretation – O.Reg 406/19	Consultant Site Inspector must be vigilant but unable to be in 2 places at once; if not monitoring trucks, must rely on the Contractor to be at site, and thoroughly tracking/ approving the truck movement of material, unless there is truck monitoring equipment (e.g., GFL vs. Reuse site trucks are different).	<p>MECP – it may be beneficial for the regulatory body to seek stakeholder input on how projects occur. The QP is expected to verify loads, this is done using on site staff who verify #, amount, etc. and submit the daily info to the Consultant / Contractor QP. Provided the two QP’s values are the same, this is good.</p> <p>MECP would also benefit from the standardization of templates for various scenarios so a consistent submission across projects is received.</p>

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Other	N/A – not defined in O.Reg 406/19.	<p>There are no clear Inspection / Auditing by the MECP to ensure Owner – Project Leader, and Consultant / Contractor QP’s are meeting their requirements. E.g., periodic / non-communicated inspections of project sites, following a soil truck from site to verify it goes to intended site when a reuse site, etc.</p> <p>MECP / Owner can’t be sure fraud/ falsification of records not occurring without auditing/ inspection. Owner via Consultant QP. MECP via MECP Inspector.</p>	<p>Owner RFT Contracts – where possible, specify use of the more detailed tracking system be used. This may be difficult for reuse sites – which is the intent of the regulation.</p> <p>MECP – a review / Inspection / Audit should be periodically be undertaken by MECP staff to determine companies with apparent issues, and on-site inspection if there are any concerns.</p> <p>Owner Consultant or Owner Project Lead should follow a few trucks to confirm the truck is coming / going where the Contractor has stated it is. There have been situations where this is not the case and Contractors have been asked to provide proof of acceptance by the owner of the unapproved site.</p>
	<p>N/A – not defined in O.Reg 406/19 or Rules for Soil Management and Excess Soil Quality Standards</p> <p>Ontario Sewer and Watermain Construction Association (2017)</p>	<p>There is no standard template for the various items available to Owners/ Consultant / Contractors. This would ensure consistent info is provided and would remove any open / unclear requirement from an Owner/ Consultant / Contractor’s interpretation.</p>	<p>MECP – if standard templates for the various touch point/ communications are available, it would make it easier for Owner, Consultant and Contractor staff to meet MECP expectations.</p> <p>A filled in Example and Plain Language Guide for reference would be beneficial.</p>
	N/A – activities are required throughout O.Reg 406/19 but costs differ when provided early in Design vs. late in Construction.	<p>High costs related to initial soil assessment, Soil Management Plan development, QP retention, tracking, auditing, etc. Additional cost for Consultant QP to ensure Contractor QP is in line with requirements of the Excess Soil Regulations.</p> <p>Late soil assessment by Contractor QP could lead to higher cost for removal, early assessment is recommended.</p>	<p>It is recommended that soil assessment be undertaken when the Design Consultant knows there will likely be excess soil on the project. The Owner should include standard language for Design (RFP) assignments and add Excess Soil Requirements as a Provisional Item for projects that the Project Lead is unsure about.</p> <p>Owners should set aside a contingency amount should the costs exceed the anticipated amounts.</p>