

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment and Infrastructure

Subject: Ontario Regulation (O.Reg.) 406/19
On-Site and Excess Soil Management

Date: January 11, 2022

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following report on Ontario Regulation (O.Reg.) 406/19 (On-site and Excess Soil Management), **BE RECEIVED** for information.

Executive Summary

Purpose

The purpose of this report is to provide Council with an overview of a new Regulation being implemented by the Ontario Ministry of Environment, Conservation and Parks (MECP) entitled O.Reg. 406/19 “On-Site and Excess Soil Management”. This report will focus on the status of this new Regulation, its potential impact on City-led construction projects, and options to manage the Regulation within the context of City projects.

Context

Excess soil is material that is excavated during construction activities and is moved off-site for reuse or disposal because it cannot or will not be reused at the site from which it was generated. City of London capital and operational projects engage in construction activities for water, wastewater, stormwater, solid waste, and transportation projects which have the potential to generate large quantities of excess soil. Most excess soil can be reused safely, however, some excess soil may contain contaminants which must be addressed when determining suitable soil reuse and/or disposal locations.

In December 2019, the MECP released a new Regulation under the Environmental Protection Act (EPA), titled “On-Site and Excess Soil Management” to attempt to support improved management of excess construction soil. City Staff have been working on interpreting the Regulation and evaluating the potential impacts on City-led projects. City staff have maintained continued dialogue with MECP Staff, to clarify aspects of the Regulation which appear to be relevant to the City.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

1. Building a Sustainable City:
 - London’s infrastructure is built, maintained, and operated to meet the long-term needs of our community
 - London has a strong and healthy environment, including protection and enhancement of waterways, wetlands, and natural areas

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

No previous reports have been generated regarding this Regulation.

2.0 Discussion and Considerations

2.1 Excess Soil Regulation and Regulatory Amendments

The MECP views O.Reg. 406/19 as a step to support proper management of excess soils, by promoting the beneficial reuse of excess soils through rules and guidelines on managing and reusing excess soil. As part of the new Regulation, the MECP has developed and adopted new risk-based soil quality standards to facilitate local beneficial excess soil reuse. Key elements of the Regulation include:

- Excess soil reuse rules and clarity around when excess soil is not a waste;
- Specifications for when excess soil can be reused and provides regulatory rules for certain low-risk soil management activities;
- Reuse planning requirements for larger (i.e., greater than 2,000 m³) and riskier sites (e.g. gas stations and industrial sites), including tracking, registration, an assessment of past uses, and if necessary, soil sampling and characterization;
- Assurances that reuse sites are not receiving waste soil and requiring larger reuse sites (i.e., 10,000 m³ or larger) to register and develop procedures to track and inspect soil received; and
- Restrictions on landfilling clean soil that is suitable for reuse at a sensitive site (e.g., school, agricultural site).

The new Regulation is being implemented over time, to allow larger projects and Project Leaders to adapt to the changes in the environmental framework. Broadly, the timeline for implementation is as follows:

- Phase 1 - January 1, 2021: reuse rules, including risk-based standards, waste designation and approvals.
- Phase 2 - January 1, 2022: testing, tracking and registration.
- Phase 3 - January 1, 2025: restrictions on landfilling soils.

Since the release of this Regulation, Staff within the Environment and Infrastructure Service Area have established an internal working group to guide the Corporation's response to this Regulation and help Project Leaders navigate the requirements listed under the Regulation. The City's internal working group have been moving towards compliance with Phase 2 of the Regulation as of January 1, 2022.

The Regulation will require more stringent oversight and will focus on the following key areas, amongst others:

- Responsibility of the Owner of the Project and Project Leaders:
 - There will now be greater responsibility by project owners, such as the Municipality, to ensure that excess soils reach the appropriate receiving sites. Currently in the City of London, the testing, transportation and disposal of excess soil generated on capital and operations projects is typically completed by consultants and contractors working under contract with the City. The new Regulation requires Project Leaders to be more active for the oversight of any excess soil removed from projects, regardless of the responsibilities delegated through contracts.
- Sampling and Testing Requirements:

- The Regulation specifies requirements for increased soil quality testing, based on the amount of excess soil a project is anticipated to generate during construction. In most cases, this will require adjustments to project schedule and budgets, to account for the increased testing requirements.
- Oversight and Compliance through a Qualified Person:
 - A Qualified Person will be responsible for preparing or overseeing all documentation including the assessment of past uses, sampling and analysis plan, soil characterization report and excess soil destination report.
- Documentation, Tracking and Registration:
 - Individual projects will be responsible for tracking each load of excess soil from the source site to the receiving site and uploading this information to the Ministry's on-line Registry.

It should be noted that certain elements of the Regulation remain unclear at this time and have the ability to be interpreted several different ways. City staff have maintained continued dialogue with MECP Staff, to clarify aspects of the Regulation which appear to be relevant to the City.

One particular aspect of the Regulation which is relevant to City projects is exemption language pertaining to "maintaining infrastructure in a fit state of repair". Municipalities and construction industry stakeholders have been seeking clarity from the MECP on the extent of the exemption. These clarification discussions are on-going, however based on preliminary discussions it appears that at least a portion of the City's infrastructure projects may be able to take advantage of this exemption. If applicable, projects would be exempt from the planning requirements (assessment of past uses, sampling if required, registration, etc.) but would still be responsible for the other regulatory requirements around ensuring an appropriate quality standard for reuse, hauling records and waste designations.

As this new Regulation has evolved, City Staff have also engaged with local industry stakeholders (i.e., engineering consultants and contractors), on several occasions, to communicate the City's expectations with respect to managing the Regulation and to collaboratively develop a strategy that can successfully be implemented through the established Purchasing and Procurement Policies applicable to the Corporation. It is anticipated that these discussions will continue to evolve through the implementation timeline of the Regulation.

2.2 City of London Management Options for Excavated Soil – Short Term (1 year to 2 year) Strategic Options

There are two categories of work that will be impacted by this legislation:

- 1) Short duration emergency repair (e.g., operational) projects; and
- 2) Larger planned infrastructure (e.g., Infrastructure Renewal) and growth projects.

Short term strategies have been developed for these scenarios, recognizing the City and industry are adapting to this new legislation in real time and these strategies are likely to evolve with experience throughout the following one to two construction seasons.

2.2.1 Emergency Repair and Operational Projects

Operational projects are likely exempt from certain aspects of the Regulation, including generating certain planning documents; however, any potential re-use of excess soil

generated from City projects and the ultimate destination of excess soil being managed on behalf of the City would be required to comply with Regulation requirements.

Currently the City of London relies on a select group of contractors to accept and dispose of unsuitable excess material excavated from project areas. This contract expires on June 1, 2022. It is recommended that the current contract be continued under a grandfathering provision outlined in the Regulation. This has required working with consultants and contractors currently accepting excess material on behalf of the City to implement short-term measures, to limit or minimize the City's potential risk exposure. As a result, the City has retained an environmental consultant to complete routine testing of excess soil generated through Operational projects to ensure receiving facilities are only accepting soil for which they are permitted (in terms of soil quality).

If testing results indicate that soil quality is not consistent with a receiving facility's permit, an appropriate short-term contingency plan (e.g., disposal at W12A Landfill as daily cover or waste) has been established. Prior to the expiry of the current contract, City Staff will revise tender documents with language consistent with the Regulation for future contracts which address the management of excess soil.

2.2.2 Planned Infrastructure and Growth Projects

A subset of planned infrastructure projects are anticipated to be subject to the Regulation. For these projects, City Staff will have the ability to carefully plan for the required sampling, analysis, and potential re-use of excess soil generated from project areas.

Consistent with several other municipalities across Ontario, Staff are recommending an initial approach that balances the insight of up-front sampling during design with the flexibility of saving some additional testing to be completed under the construction contract. Project managers will be required to use consulting and contracting resources to implement the requirements under the Regulation on behalf of the City. Language will be included in the proposal and tender documents which clearly outlines the City's expectations and the responsibilities of consultants and contractors as it relates to the Regulation.

Proposals for infrastructure projects will require a portion of the necessary sampling to be completed by consultants and sub-consultants during the investigation/detailed design stage to inform the tender documents. This approach is intended to provide contractors with sufficient information to bid on City projects, while at the same time allowing staff and their consultants time to determine the specific Regulatory requirements applicable to the project.

As part of the Tendering process, the City will request that contractors bidding on the tender identify potential re-use sites for excess soil generated as part of the project, based on the results of the initial soil sampling. Any additional sampling required to conform with the Regulation would then be the responsibility of the contractor and executed under the construction contract. This provides contractors the flexibility to identify their planned reuse sites and tailor their sampling needs accordingly.

Contractors would be required to retain their own Qualified Person to direct and analyze any additional sampling as required to satisfy the re-use destination. Similar to shorter duration and operational projects, consideration for the responsibilities with respect to the hauling, tracking, and sign-offs required under the Regulation will need to be evaluated.

To ensure that the owner of potential re-use site(s) have agreed to accept to any material generated from City of London projects, a formal sign-off will also be required.

In the situations described above, the responsibility to implement the requirements under Regulation can be delegated to consultants and contractors working under contract on behalf of the Municipality, but the liability remains with the Corporation. Therefore, any potential long-term risk remains with the owner of any given project (i.e., the City of London).

2.3 City of London Management Options for Excavated Soil – Potential Long-Term Strategic Options

As a short-term solution for the scenarios described above, the City is delegating consultants and contractors to implement certain aspects of the requirements under the Regulation. The anticipated financial impacts of this new arrangement are not yet known, and it will take time for the industry to adapt to the new Regulation. Further, having third parties manage excess soil on behalf of the City may carry additional risk in terms of trailing environmental liability.

A possible long-term approach may be to consider managing all, or a portion of excess soil generated from City-led projects internally. While this alternative is considered desirable from a project cost, risk and potential liability perspective, this approach would require significant financial and staffing resources. It is recommended that as the industry adapts to the new financial implications of this Regulation, that this option be reassessed in the future.

3.0 Financial Impact/Considerations

3.1 Project Cost Implications

Staff are currently attempting to manage the financial impact of the Regulation by reviewing current processes, amending construction contracts, developing partnerships and evaluating strategic considerations as noted above; however, the cost implications of this new Regulation are not yet known. It is anticipated that as the industry adapts to the requirements of the Regulation, the anticipated or actual costs to specific projects will be better defined during the planning and design process.

Although the financial impacts to projects that are not exempt from the planning aspects of the Regulation are difficult to assess, recent project examples have identified relatively significant budgetary implications for the implementation of the testing and sampling requirements specified under the Regulation for larger projects.

In the interim it may be beneficial for Project Leaders to carry extra contingency costs, particularly for larger projects, to properly manage the requirements under the Regulation. Once the actual cost implications are known to City Staff, it is expected that future Capital and Operations budgets will need to account for the increased costs anticipated for managing excess soil in accordance with MECP requirements.

3.2 Schedule Implications

Infrastructure Renewal and growth projects have become increasingly complex in recent years with servicing partners seeking to align multiple renewal needs, utility coordination and integration of complete street elements all of which can impact the length of a construction contract. As is, most of these projects require a full construction season to complete. The addition of completion of excess soil planning requirements including sampling and testing prior to the actual start of construction has the potential to add weeks to an already constrained construction season.

Through the City's discussion and consultation process, industry stakeholders have raised concerns for potential backlogs at environmental testing laboratories and potential shortages in available Qualified Persons. As with costs, the schedule implications of excess soil sampling on City contracts is untested until the industry has experienced a minimum of one to two construction seasons. In an effort to buffer projects from these possible delays, City Staff are reviewing options to shorten the timeline for awarding contracts in an effort to recover as much time as possible for contractors.

Conclusion

Municipalities and construction industry stakeholders across Ontario are all simultaneously attempting to plan for the requirements listed under O.Reg. 406/19. Navigating the requirements under this Regulation has been a challenge given the MECP's delayed delivery of information that is critical to the interpretation of certain aspects of the Regulation. This information delay has been a common theme identified as an obstacle amongst the City's internal working group and industry stakeholders.

It is anticipated that as the Regulation becomes implemented and clarifying information is released by the MECP, that the industry will adjust to the requirements and cost implications will be better defined. As a result, City Staff are prepared to report back to Council as needed throughout the implementation process of the Regulation to provide regulatory updates and estimated budgetary and project schedule impacts.

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