

# 2018 Ontario Excess Soil Symposium Key Themes



A summary of key themes and resources from the 2018 Ontario Excess Soil Symposium held on November 28, 2018 in Ajax, ON.

## Introduction

On November 28, 2018 the Canadian Urban Institute convened the second annual Excess Soil Symposium in Ajax, Ontario. The objectives of the event were to support beneficial reuse of excess soil in Ontario; discuss excess soil policy and regulation; share successful case studies, research, resources, lessons learned and to provide networking and learning opportunities.

Excess Soil is soil excavated through construction activities that cannot or will not be reused at the site where the soil was excavated and must be moved off site. Approximately 25 million m<sup>3</sup> of excess soil is generated in Ontario each year. This material must

be properly managed to mitigate impacts on communities and the environment and reduce risk on land development projects. The following topics related to the use of excess soil were discussed at the 2018 Symposium:

- Why does soil management matter?
- Successful pilot projects and case studies
- Advances in technology
- Advances in municipal by-laws and procurement
- Options to reduce illegal fill dumping



*An audience of 300+ professionals from industry, government, NGOs and academia convened in Ajax, ON on November 28, 2018 for the 2018 Ontario Excess Soil symposium.*

## Key Themes

Key themes arising from the discussions during the Symposium are presented below:

**There is broad interest in a Provincial Excess Soil Regulation.** Due to the timing of the event MECP staff were unable to comment on the status of a regulation at the Symposium. However, even though discussion of a regulation could not be incorporated in the agenda directly, we heard continued support for a Provincial regulation for excess soil from across sectors, projects and perspectives (developers, government agencies, QPs and lawyers, etc.). Many of the attendees were involved in consultation on the proposed Excess Soil Management Regulation, and some projects presented, such as the Cherry Street Lakefilling Project are already being executed in alignment with the proposed regulation.

Until finalization of the new regulatory regime, the Ministry's "Management of Excess Soil - A Guide for Best Management Practices" (2014) was described by many as the best guidance on reusing excess construction soils in Ontario.

**Local reuse is best.** Across sectors there is also shared interest in reducing the hauling of excess soil and the cost, carbon emissions and road damage it causes. On-site reuse, staging areas for excess soil on construction sites, permitting of temporary soil storage sites, and soil matching with other local projects were all discussed as possible solutions to reduce the movement and hauling of excess soil.

**Municipalities should have up-to-date site alteration and fill by-laws.** Presenters discussed how by-laws should be updated frequently and kept current to reflect relevant changes in policy and industry. An example of change that should be reflected in by-laws, is the amendment to the Municipal Act that allows for site alteration by-laws to apply in Conservation Authority regulated areas.



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Kevin Goldberg, SoilFLO



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Carl Spensieri, Berkley Canada

**Innovation and technology are supporting the reuse of excess soil in Ontario.**

In a lightning round, speakers presented on emerging technologies to improve the efficiency, effectiveness and ease of excess soil management. Presentations discussed the modernization of soil tracking, drone technology, carbon storage, and high-resolution site characterization. Additional case studies highlighted applications where excess soil is being reused, including Cherry Street Lakefilling, reuse of stormwater management pond sediment, Eglinton Crosstown West Tunnels, and examples of on-site soil salvage, amendment and reuse.

**Salt-impacted soil currently presents a reuse challenge.**

Participants discussed the need for rules that allow salt-impacted soil to be reused in applications where salt already exists or will likely be applied again, and where it cannot impact groundwater and agriculture. This would allow for more reuse of this material.

**Improving soil quality can provide benefits.** Speakers discussed the benefits of considering more than just the chemical properties of soil, including its biological content, geotechnical properties and absorption capacity. They also discussed construction practices that

can improve these properties to benefit soil quality and enhance its ability to absorb runoff and store atmospheric carbon.

**Reducing illegal fill dumping requires a multi-faceted approach.**

Presenters discussed the power of education of the public and the agricultural communities, who are often the receivers of excess soil, in reducing illegal fill dumping. Speakers also discussed the need to communicate to local City and Regional Councils about the challenges and opportunities to reuse excess soil. The need to have clear and current site alteration and fill by-laws and the importance of having the staff and resources to enforce the local by-law were also discussed.

**Knowledge-sharing and collaboration is key to effective and beneficial excess soil reuse.**

Excess soil reuse crosses many geographical and professional lines, impacting the development industry, local, regional and Provincial governments, residents, professional services firms, the insurance industry and conservation authorities. To support soil reuse it is necessary to share knowledge and lessons learned between parties and collaborate where impacts cross these boundaries.



Panel 1: Why Does Soil Management Matter?



Meggen Janes, Director of Soil & Groundwater Management, Waterfront Toronto

## Additional Resources

The following resources were discussed at the Symposium:

- [Speaker Presentations](#)
- [Symposium Photos](#)
- RCCAO Excess Soil Educational Videos:
  - [Video 1: Financial and Environmental Benefits of Best Practices](#)
  - [Video 2: Words of Wisdom from a Watermain Contractor](#)
  - [Video 3: Big Bang for the Buck on Megprojects](#)
- TRCA Soil Resources:
  - [Preserving and Restoring Healthy Soil: Best Practices for Urban Construction](#)
  - [Construction Specifications for Implementing Compost Amended Planting Soil in Ontario](#)
- [Management of Excess Soil – A Guide for Best Management Practices](#)
- Notes from Tom Halinski, Aird & Berlis - [Tools and Challenges for Municipalities in Regulating Excess Soil](#)
- Abstract from Marc Hébert, Quebec Excess Soil Management Expert - [Reducing Illegal Practices with Strategic Communications](#)
- [Didi Pershouse's website](#)
- [Soil.com](#) – A website that provides a soil matching service.
- [CL:AIRE](#) - A UK soil reuse model and smart regulation approach.

For more information about the Symposium or CUI's Excess Soil work, visit our [website](#) or contact Geneva Starr: [gstarr@canurb.org](mailto:gstarr@canurb.org)

## Why does soil matter?

*Healthy Soil = Healthy Environment. Despite being a non-renewable resource, meaning its loss and degradation is not recoverable within a human lifespan, soil is often overlooked.*

*- Symposium Attendee*

*[Soil] matters because it is a resource that can be used where it is no longer required. It should not be wasted.*

*- Symposium Attendee*

*The soil symposium is an important opportunity for industry, regulators, and the affected communities to hear other views and develop solutions.*

*- Symposium Attendee*

## Thank You to Our Participants

### Speakers:

M.P.P. Andrea Khanjin, Parliamentary Assistant on behalf of Hon. Rod Phillips, Minister, Ontario Ministry of Environment, Conservation and Parks

Rob Baldwin, General Manager, Planning and Development, Lake Simcoe Region Conservation Authority

Krista Barfoot, Principal Brownfield Technologist, Jacobs

Janet Bobechko, Senior Partner, Norton Rose Fulbright

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Marc Hébert, Quebec Excess Soil Management Expert

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