Submission to ERO: 019-9196

Enabling greater beneficial reuse of excess soil

Gravel Watch Ontario (GWO) is a province-wide coalition of citizen groups and individuals that acts in the interests of residents and communities to protect the natural environment, health, safety and quality of life of Ontarians in matters that relate to aggregate resources. Formed in 2003 we have over 20 years of experience assisting both communities and government agencies in matters related to aggregate matters.

The Excess Soils Problem:
The volume of excess construction fill/soil generated annually from the larger urban areas of the GTA is estimated to be the equivalent of one to four Sky Domes per year. This problem extends across the province. Finding suitable sites for disposal of such large quantities of excess soil material without causing adverse effects is key. The various types of soils are not a valued resource (with the exception of topsoil) when generated but a problem to be disposed of in the most economical manner possible.

The phrase, "beneficial reuse of excess soil", contains an assumption that excess soil is a resource of some value, not an unwanted material resulting from new construction. The term, "reuse", also supports the notion of a resource of value. Getting rid of excess construction soils is a costly problem and has a potential for damage through moving contaminants, changing drainage or burying topsoil. Excavated soil should be reused within the project area where ever possible.

Rural Areas Not Vacant:
Rural Ontario has been classified into different resource areas such as agriculture, natural areas (woodlands, wetlands, stream valleys, ground water discharge and recharge areas), villages, aggregates, etc. Very few rural areas are suitable for the disposal of excess construction soils without creating significant adverse effects.

Gravel Watch Ontario supports the use of excess construction soil in rural areas but only if done in a way that prevents adverse effects on all life and the ecosystems that support it.

Aggregate Pits and Quarries as Excess Soils Dumps:
Land depressions created by aggregate extraction become attractive locations for dumping large quantities of excess fill. Above water table gravel pits and quarries have potential for excess soil operations under careful supervision. The closed AECON-Pinchin pit in Caledon is an example where the Region of Peel is partnering with Credit Valley Conservation to rehabilitate an above water table gravel pit using excess fill generated by Peel, under careful, professional supervision. This in our opinion is in stark contrast to using ARA Licensed sites which appear to be immune from municipal fill regulation as dumping grounds for excess soil, made worse by the financial incentive to the operator to do so.

Below water table aggregate pits and quarries are problematic sites as dumped excess soils would become a slurry, difficult to grade and also create hydraulic barriers to natural ground water flows. Contaminants in excess soils will, over time, leach out into rural groundwater resources. The quantity and quality of ground waters are critical for all rural land users who must drink and use groundwater.

Purpose of the Proposed EBR Excess Construction Soils Regulations:
The drivers for these proposed regulatory changes are stated as the province's desire to cut red tape and address housing shortage and highway congestion. These are indeed problems needing solution, but the province's policy choices for solving them will increase urban sprawl and require the construction of more highways. Such development is not sustainable; options like increasing housing density within existing urban boundaries and expanding the commuter and goods rail transportation systems are superior options.

In order to avoid unnecessary and costly regulations referred to as "Red Tape" a set of very clear rules for avoiding any adverse effects arising from the disposal of excess construction soils must be the goal. Short term solutions are likely to lead to avoidable adverse effects.

The focus of the ministry should be to develop policies to ensure that development is done in a sustainable way and enforce compliance through a robust program of unannounced inspections and severe penalties. In addition to cutting red tape, another objective of this proposal is to eliminate the need for Environmental Compliance Approvals (ECAs) for specified undertakings. In the process, the oversight and

enforcement function are proposed to be transferred from the ministry to qualified persons (QPs), hired by developers. A clear conflict of interest.

Qualified Persons and Existing Professional NGOs:
The Qualified Persons Community of Ontario (QPCO) states in its website that: "QPCO will not licence or certify QPs, regulate their practice or play any role in assuring their clients or the public as to their qualifications or professionalism. Any issues with QPs found through the QPCO should be directed to the appropriate regulatory or oversight body (Professional Engineers of Ontario (PEO), Professional Geologists of Ontario (PGO) or MECP)." PEO and PGO grant licences to practice only after a thorough review of applicants' credentials, and maintains codes of ethics, practice standards, continuing education and long-term liability insurance that members must follow. Despite all these checks and balances it is not clear how the QP title is conferred on a candidate. The field of engineering is broad, and no single individual can master all subject areas.

The ministry must reassure Ontarians that the practice of transferring important excess construction soils disposal planning and oversight functions to QPs is acceptable by implementing measures to weed out inappropriate QPs, such as: working with PEO and PGO to have these associations award the QP title (and area of qualification), requiring the QP's name, area of qualification and license number on submissions to the ministry, and providing financial support to PEO and PGO to oversee the QP practice. If the PEO and PGO are unwilling to take on this task, then the ministry must reclaim the accountability for these tasks. It is unacceptable to have unlicensed QPs who cannot possibly be held accountable in a real sense, carry out these critical roles.

Land Use Planning and Excess Construction Soils:
The notion of excess soil disposal planning functions raises the matter of a major change in a land parcel via massive fill deposits, overwhelming the traditional use and purpose of the land from agriculture or an aggregate pit to become a soil dump. A major fill site should require an OPA and RE-Zone in order to keep track of the soil dump land use well into the future. The depths of new soils deposits will likely never be suitable for supporting building structures for a very long time without extensive engineering designs.

Aggregate Resource Act Licensed Extraction Sites:
The ministry proposes to exempt specified excess soil management sites and small liquid soil depots from an ECA-waste, subject to rules. One of the scenarios described reads: "The operation of an aggregate reuse depot within Aggregate Resource Act [ARA] licenced sites would be clarified, recognizing the role of the ARA licence and associated site plans … For greater certainty, an exemption from sections 27, 40 and 41 of the EPA

does not affect the need for these depots to comply with other relevant laws and to acquire other relevant permissions…"

Another scenario reads: "SWMP sediment, that is either being reused as engineered aggregate or in an infrastructure-related undertaking … would be provided flexibility in respect of the excess soil quality standards for asphalt road-related contaminants and naturally occurring exceedances "The ministry is proposing that the SWMP sediment could be sampled in situ and the quality could exceed regulatory standards …" depending on the subsequent use.

The distribution of contaminants in SWMPs is very non-uniform (e.g. solid vs. liquid phases, horizontal and vertical distance from the inlet, etc.) QPs would develop and oversee the application of sampling programs to determine the quality of the material and its beneficial uses vs. storage as a hazardous waste. Oversight from the ministry is necessary, and such depots should be close to the reuse location and far from sensitive land uses.

ARA licensed sites (e.g. gravel pits) are temporary uses of land, which is often prime agricultural land, near sensitive receptors, underlain by aquifers used as sources of potable water. These sites should not be considered suitable sites for the kind of depots envisioned to support large infrastructure projects such as highways. Instead, gravel pits should be rehabilitated progressively and promptly and returned to agricultural use as required under ARA Licences and Site Plans.

Furthermore, most of the aggregate that would be processed would come from demolishing existing highway sections, mixing it with other materials like glass, ceramic, etc. and producing construction material to be used in new highway construction. This is best done by establishing appropriate depots near these highway construction sites, not transporting material back and forth many kilometres to gravel pits for processing.

There are documented cases of illegal dumping within gravel pit sites, without permits, oversight, etc. Unannounced inspections and severe penalties are rare as documented by the Auditor General (Office of the Auditor General of Ontario, Value-for-Money Audit: Management of Aggregate Resources, December 2023). Publicly available inspection and enforcement reports are an essential part addressing this deficiency. The ministry must prioritize these matters over cutting red tape. We reiterate that rural residents drink their groundwater and thus the quantity and quality of ground and surface waters are critical to the health and economies of rural Ontario where the majority of excess soils will be dumped.

The ad hoc establishment of soil reuse depots in gravel pits or elsewhere within a municipality without consultation with and concurrence from municipal governments, leads to confusion and disruption of municipal roles, as the following scenarios identified by the Township of Puslinch Council illustrate(https://puslinch.ca/wp-content/uploads/2024/11/November-6-2024-Council-Meeting-Agenda.pdf item 10.2):

- Land use planning would be disrupted, as would functions like ensuring environmental integrity and groundwater protection and enforcing compliance.

- The ability to effectively manage excess soil would be undermined, potentially leading to adverse environmental impacts, such as soil contamination and disruption of local ecosystems.

- The authority to inspect and enforce compliance would be hindered, making it more challenging to monitor and address compliance issues, thus jeopardizing public health and safety.

- The establishment of these depots could conflict with existing land use planning frameworks, potentially resulting in incompatible land uses and further strain local infrastructure.

- The proposed flexibility in soil reuse standards could conflict with established land use planning frameworks, potentially resulting in incompatible land uses and further strain local infrastructure.

- The introduction of regional mapping for areas with naturally occurring exceedances presents significant financial challenges for municipalities, as the costs associated with implementing such mapping projects may not be feasible given limited budgets and resources.

- Relaxing excess soil regulations and implementing regional mapping could negatively impact agricultural lands by allowing excess soil to be disposed of in ways that diminish the quality and usability of these valuable lands for future agricultural purposes, highlighting the need to prioritize the protection of agricultural lands equally with infrastructure projects and housing developments.

Excess Construction Soils operations in ARA Licenced Aggregate pits and quarries:

Draft Policy for consideration of *ERO number 019-9196*

The draft policies below are intended to implement the notion of feasible excess construction soils handling and stockpiling in ARA licenced sites.

> Policy adapted and expanded from Peel/Caledon Aggregate Policy Review Discussion Paper, May 2023.

Considerations for the safe handling and stockpiling of excess soils material in proximity to sensitive surface water and ground water features and areas shall ensure that the following policies will be satisfied:

1. Full scale recycling facilities are not permitted in licensed extraction sites but may be more properly located in urban industrial areas or along new highway routes to minimize transportation.
2. Excess construction soils operations and stockpiles are not directly associated or essential for the mining, processing and shipping of virgin aggregates. Excess construction soils operations and stockpiles **may** be permitted within licensed extraction sites, where on a scale that is secondary and complimentary to the aggregate operation, for combining with materials extracted on site and limited in size and volume. Such operations cease to be permitted and will be removed when extraction is complete and the A.R.A. licence is surrendered,
3. Where excess construction soil material is to be permitted on any ARA licenced site, the host municipality will be satisfied prior to approval that the following policies will be complied with during operations:
    a. Such uses must be located outside the active or past extraction areas and above water table.
    b. stockpiles and all processing of excess construction soils will be separated and any leachate prevented from entering ground water tables or surface water bodies;
    c. Sufficient separation distances/buffers from surface water features are designed and maintained to prevent pollution;
    d. Storm water runoff from excess raw and processed construction soil stockpiles shall be managed to prevent adverse impacts;

e. Ground water and surface water sampling and reporting shall be included in the monitoring requirements for the licenced aggregate site and copies provided to the host municipality;

f. Effective measures to minimize dust emissions from excess soils stock piles and processing shall be designed and implemented to prevent health impacts,

g. No part of excess soils may be permitted in or adjacent to well protection areas.

4. When virgin aggregates are mixed with excess construction fill materials to make an engineered product, the virgin aggregates shall be scaled prior to mixing and the amount subject to municipal levies,

5. Aggregate extraction sites are intended to be temporary land uses thus excess construction soils use and storage will only be a permitted during and accessory to active extraction operations under an Aggregate Resources Act licence.