

﻿Ministry of Northern Development, Mines, Natural Resources and Forestry

RPDPB - Resources Development Section

300 Water Street
2nd Floor, South Tower
Peterborough, ON
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Canada

Attention:    Cathy Curlew

Re. Proposed regulatory changes for the beneficial reuse of excess soil at pits and quarries in Ontario

Ontario Regulation 244/97 and the Aggregate Resources of Ontario Provincial Standards under the Aggregate Resources Act

ERO number 019-4801

https://ero.ontario.ca/notice/019-4801

February 24, 2022

Dear Ms. Curlew,

I am a director of Protecting Escarpment Rural Land (“PERL”) a non-profit community-based volunteer organization founded and incorporated in 2005, dedicated to the protection and enhancement of the Niagara Escarpment in Halton Region. I spent my my career with a major international chemical company, much of it as director of environment, health & safety, and operations. The chemical industry learned expensive lessons from the improper disposal of chemical wastes. Learning from the reckless excesses of the last century, Ontario should enact the necessary industrial best practice regulations to prevent groundwater contamination from construction waste soils exceeding Table 1 standards. As we have learned, it is much better to prevent than to correct.

Thank you in advance for accepting my comments below on behalf of PERL. We expect that important and necessary changes will be made to the Aggregate Resources Act (“ARA”) to re-balance competing provincial "resources of interest", with a focus on long term ecological, social and economic sustainability.

There is a clear and present danger in Ontario’s aggregate pits and quarries. The past and current practice of importing waste construction soils / fills into below-water-table pits and quarries poses a danger of monumental impact and scope. The probability of contaminated soils and toxic fills, especially from Brownfield sites, being placed inside the groundwater aquifers is ever more increasing with the 25 million cubic metres of excess fills needing to find a place.

We need more oversight on contaminated soils and toxic soils, with much better assurances that these soils do not end up illegally dumped. Contaminated and toxic soils need to comply with the Environment Protection Act and waste manifest regulations.

Waste concrete and waste asphalt and roofing tiles must be specifically prohibited from imported fills being placed into pits and quarries for the purpose of rehabilitation. These waste streams must be sent to recycling facilities.

There are an estimated 4000 pits and quarries in Ontario that are above the water table. Provincial policy should prioritize these sites and direct excess soils to above water table locations.

The current *Ontario Regulation 406/19* Rules for Soil Management and Excess Soil Quality Standards on soil quality certification only require a tiny amount of soil test sampling, leaving the real possibility of missing pockets of chemical or biological contaminants in the soils. Added to the risk is the illegal dumping of toxic materials hidden inside the hundreds of thousands of dump trucks.

Under the proposed changes to the Ontario Regulation 406/19 it states:   “*Excess soil placed below the water table must follow the soil management rules for environmentally sensitive areas under O.Reg. 406/19, which means these areas would be limited to the most stringent (table 1 under the EPA) quality standards.”*

*NDMNRF proposes that all aggregate sites:*

a. *keep written records that are available on request that identify the source site, quality, quantity and placement location of excess soil received for reuse at the site*

b. *retain a Qualified Person (QP) (as defined by O.Reg.153/04, EPA), if placing large quantities (> 10,000 m3) of excess soil and/or if placing excess soil below the water table, to provide written confirmation that:*

i. *suitable soil quality is received for reuse based on conditions at the site and the approved future land use in the rehabilitation plan*

ii. *the final placement of excess soil on the site is overseen by a QP*

If not outright prohibited, the changed regulation should require that pits and quarries receiving imported waste soils for placement into below-the-water-table pits and quarries be required:

• To have samples of soils analyzed by a third party for chemical and biological contamination, paid for by the receiving pit or quarry .

• To have the written soil quality records available to the public on the company web site.

• To keep records of imported fill / soil certificates and deposit location for at least 10 years after the quarry license is surrendered. A requirement of only 7 years puts the pit or quarry at risk should an issue arise years or decades later.Publishing the records on the quarry company web site would would create a permanent internet record at low cost.

The change regulation goes on to propose:

“*For existing licence holders authorized to import fill to facilitate rehabilitation, add rules in regulation, that when followed, would enable approval holders to make specified changes to their****site plan****without the need for ministry review (i.e.,****self-filed amendment****).”*

This change in regulation, when applicable to the importation of waste soils/ fills for rehabilitation purposes, should be prohibited from being the subject of a “self-filled amendment”. This change is unacceptable. Furthermore, any “major” changes to the Site Plan needs Ministry review and approval, including a prerequisite of public notice and comment on the Ontario Environmental Registry.

For all pits and quarries, the original licensing Site Plan with respect to final site rehabilitation must not be amended without a full review by local Agencies / Municipalities, and public notice, participation, and comments into the Ontario Environmental Registry, for at least 60 days, and notification to all area property owners within a prescribed distance from pit or quarry site.

Enormous quantities of imported fill are being dumped into pits and quarries, in amounts greatly exceeding their Site Plan permissions. Much of this stockpiling is in anticipation of future post-license after use, contrary to the primary requirement for mine rehabilitation side-slope construction. Is the Ministry aware of the degree to which these imported fill stockpiles are imported for the immediate revenues generated, with no approved final end use for the imported fills?

A moratorium on all new aggregate license approvals and site plan amendments, until a full review of current pit and quarry practices by an independent panel, is prudent at this time. The objective of this independent review is to update and upgrade all pits and quarries in Ontario to the most current industrial regulations, policies and standards, without exemptions or grandfathering. The Ontario Society of Professional Engineers (OSPE) “Best Management Practices (BMPs) for the Rehabilitation of Pits and Quarries in Ontario” offers some good recommendations, however, more restrictions must be in place to safeguard Ontarians.

It is one thing to set policies, regulations and standards. It is a different thing to have these policies, regulations and standards complied to. With the current limited oversight resources at the Ministries there is a real and grave risk of contaminated soils / fills or waste liquids being dumped into pits and quarries, either inadvertently or illegally.

As mentioned above, the soil / fill quality sampling and testing protocols are inadequate (*too small, too infrequent)* especially as relates to waste soils / fills being dumped into below-the-water-table pits and quarries. For below-water-table pits and quarries, additional testing of soils/ fills needs to be done by the pit or quarry operator using independent 3rd party testing service to ensure these waste materials comply with Table 1 or 2 standards, in order to safeguard groundwater quality meeting Ontario drinking water standards.These soils will be in direct contact with groundwater; therefore the most restrictive contamination table needs to be the standard. In rural areas, groundwater is usually the only source of clean drinking water for humans and animals. Everything must be done to protect wellheads and private wells.

For imports of waste soils or road sweepings into a below-the-water-table pit or quarry, the level of sodium and conductivity is important and must be within Ontario drinking water standards. High levels of SAR-sodium absorption ratio or EC-electrical conductivity will eventually be taken up into area drinking well causing potential adverse health issues. The exemption of > 1.5m depth should not be allowed for below-the-water-table pits and quarries.

Monitoring water wells serve a limited purpose for operating below-the-water-table pits and quarries because the groundwater flows are pulling towards and into the open mine. For the purpose of monitoring groundwater contaminants, these monitoring wells need to be at and below the pit and quarry floor levels. The groundwater will take a longtime to return to their natural pre-mine flows.

Operators of below-water-table pits and quarries are required to collect mine water runoff, direct the excess water to settling ponds, and then pump off-site to the surrounding watercourses. These settling ponds can carry contaminants from mining operations and imported fill. As a result, the Permit-to-Take-Water must include sampling and testing for chemical and biological contaminants. Testing for contamination needs to be a requirement of the PTTW. Off-site sump pump water discharges are substantial. The discharges flow through streams, wetlands and lakes, and consequently can have adverse impacts on fish and other aquatic species, and the flora and wildlife that rely on these watercourses. The discharges can then re-enter the groundwater, thus jeopardizing wells. Discharge water turbidity and odour is an ongoing issue that needs Ministry enforcement, not merely self-reporting by the operator.

Pit and quarry “controlled” entrance access is also an issue. Locations with simple lift gates show a lack of security that provides the possibility of toxic waste materials being illegally dumped. The operator becomes legally liable for future impacts once they accept imported fill. Provincial regulation and oversight is needed to protect source water and the public from operators that prioritize profit over health and safety is required.

Astoundingly 25 million cubic metres of waste construction soils is generated per year in Ontario. Yet there is no Provincial prioritized strategy that has been developed for the responsible end-use of what is actually a resource stream. There are places in Ontario, Canada and the USA that need soils for their infrastructure projects. We should learn from other jurisdictions like Holland, which uses these soils for civic infrastructure projects like flood control, dykes, highway sound barriers, etc.

The regulatory impact statement states “*The anticipated environmental, social, and economic consequences of the proposal are expected to be neutral to positive*” We’re not sure how the impacts would be positive or even neutral given the following: the proposal would add years of extra mining activity and negatively impact the surrounding communities and environment from truck emissions; the proposal would put millions of tonnes of potentially contaminated soils / fills into below-water-table pits and quarries, increasing the risks to humans, animals and plants that consume these groundwaters. Instead of positive or neutral, we see these potential risks as unacceptable and irresponsible.

Additionally and crucially, the proposed regulation needs to assess the regulatory requirements through a climate change lens and an ecological impact perspective based on the Precautionary Principle.

The Province, by directing excess soils to the thousands of abandoned pits and quarries that are above the water table, would create a much higher environmental and social benefit, and thus help to supply the needs for rehabilitation soil outlined by The Ontario Aggregate Resources Corporation - TOARC.

Thank you for your consideration.

Roger Goulet, Director

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