

Best Practices for Haulers

On-site and Excess Soil Management

O. Reg. 406/19

January 2021

Context and Background

Ontario Regulation 406/19: On-Site and Excess Soil Management was announced in December 2019, amendments were passed in June 2020 and December 2020.

The purpose of the regulation is to:

- Reduce soil management costs
 - Reduce costs of transportation
 - Reduce costs of landfilling excess soil
- Protect human health
- Protect the environment
 - Eliminate illegal dumping of excess soils
 - Reduce amount of clean soil going to landfills
 - Reduce greenhouse gas emissions

Excess Soils Regulatory Documents

O. Reg. 406/19

- Required by law
- Exempts low-risk soil management activities from waste Environmental Compliance Approvals (ECAs)
- Implemented in phases from Jan. 1, 2021 to Jan. 1, 2025, some grandfathering provisions

Rules for Soil Management and Excess Soil Quality Standards

- Outlines further details for implementation of assessment of past uses, sampling and analysis plans, excess soil characterization reports, soil storage and processing, tracking, soil quality standards and reuse rules
- Required by law (by reference in Reg. 406/19).

Excess Soils Supporting Documents

Fact Sheets

- Still in development by the Ministry (coming soon)

Best Practices

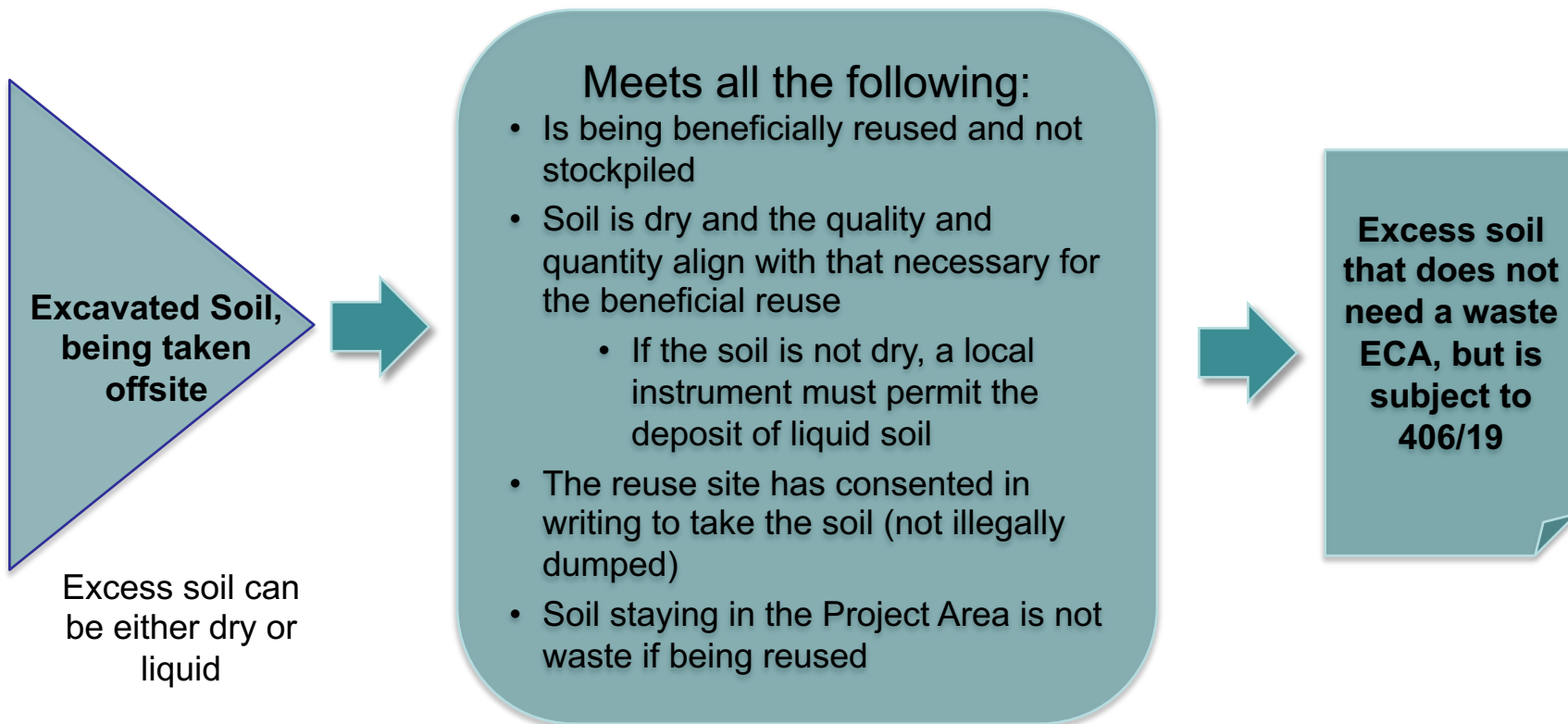
- Developed by industry stakeholders, project led by ONEIA
- Recommended, not required
- Outlines regulatory requirements
- Outlines and clarifies how stakeholders can best implement the requirements
- Not universally applicable, stakeholders are encouraged to review and integrate where useful

Additional Best Practices documents by ONEIA cover Temporary Sites, Qualified Persons and OSPE is developing BPs for Pits and Quarries reuse
Municipal Bylaw Tool being updated by Canadian Urban Institute

What soil does 406/19 apply to?

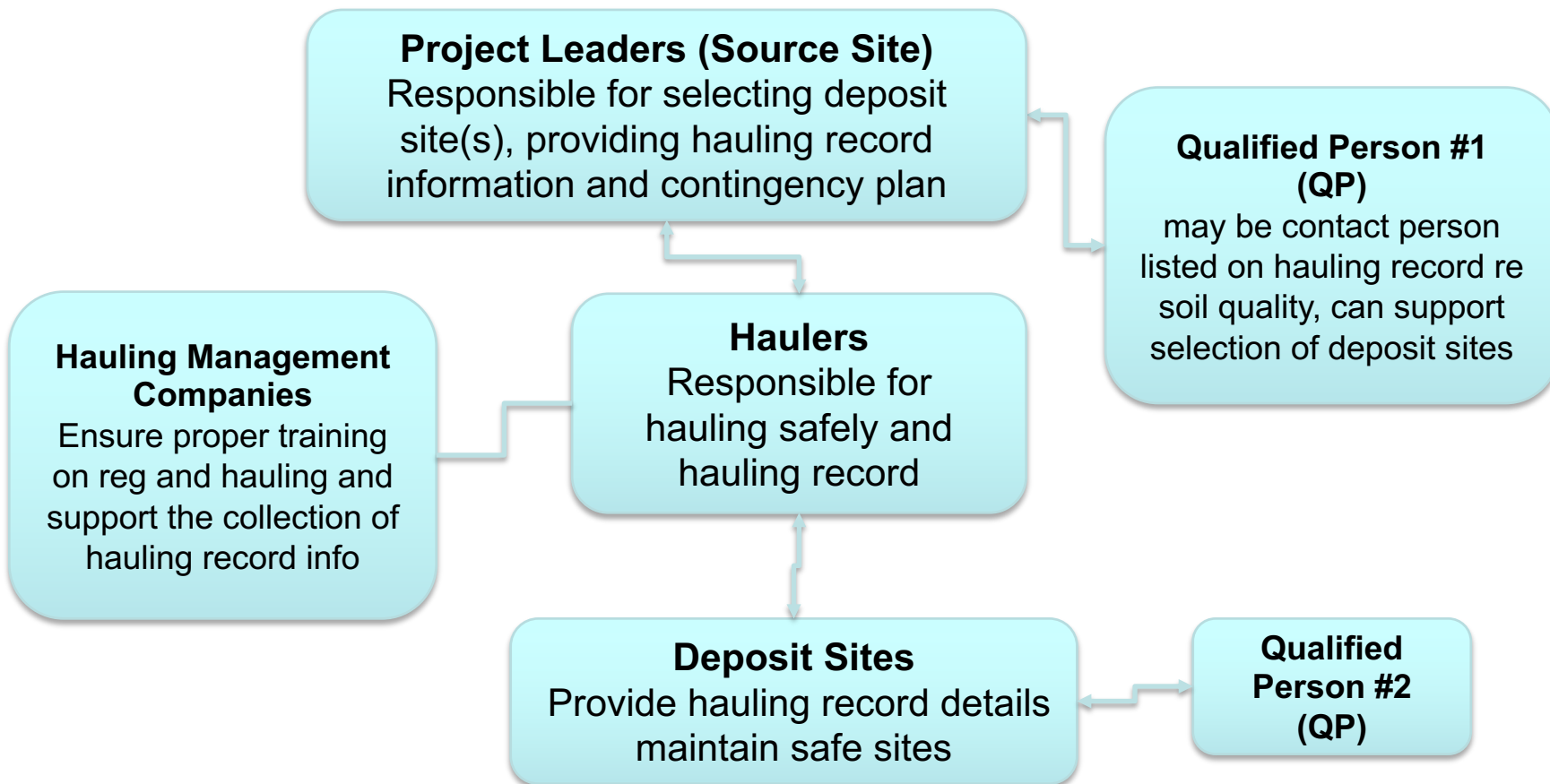
“Soil” means unconsolidated naturally occurring mineral particles and other naturally occurring materials resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimetres in size or that pass the US #10 sieve.

Excess soil is designated as waste (and regulated under O. Reg. 347) unless it meets ALL the conditions outlined below.



Stakeholders Overview

The parties listed below all have a role to play in meeting regulatory requirements and implementing best practices for **hauling** under O. Reg. 406/19.



406/19 and Haulers

Regulatory requirements for Haulers transporting excess soils, for both dry and liquid soils, are focused around:



Safe containment and transport



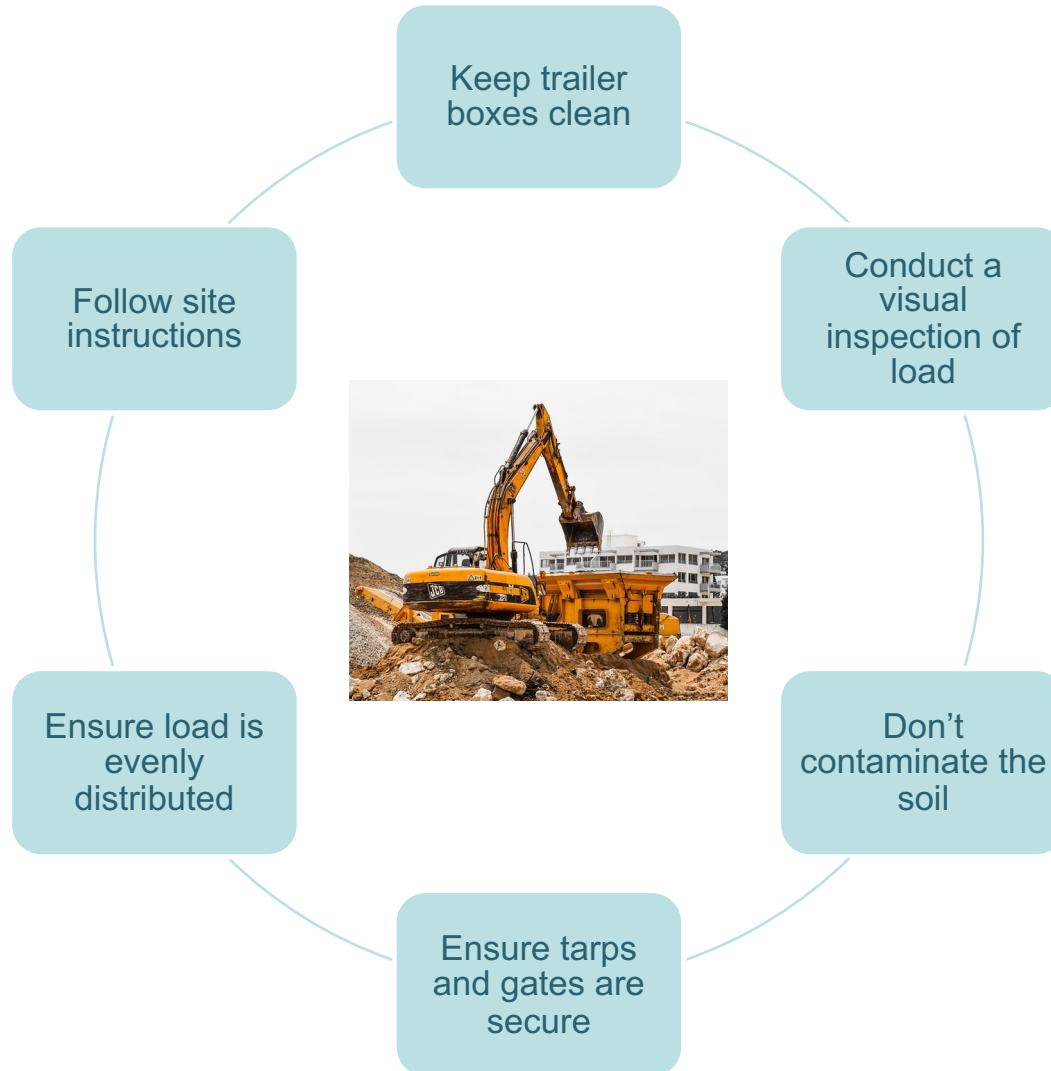
Collecting information and completing the Hauling Record

- Can be provided verbally from Jan. 1, 2021 – Jan. 1, 2022
- After Jan. 1, 2022 must be a written or electronic form

Safe Containment and Shipping

REGULATORY REQUIREMENT	<ol style="list-style-type: none">1. Vehicles must be able to withstand abrasion or corrosion2. Vehicles must be leakproof when necessary3. Vehicles must prevent falling or blowing materials and prevent the emissions of odours
BEST PRACTICE (Limit Nuisances)	<ol style="list-style-type: none">1. Keep vehicles clean and free of mud and debris that will be tracked on public roadways.2. Ensure tarps and dump gates are in good working order to prevent dust and spills or leaks of soil materials during transport.

Best Practices for Loading



Haul Routes

Haul routes between Project Areas, reuse or disposal sites and temporary soil storage sites should consider:

- municipal trucking routes,
- local load restrictions and seasonal load limits, particularly those for March – May,
- avoid residential streets where possible,
- attempt to reduce traffic congestion, and,
- where possible, hauling routes should take the shortest (or fastest) available route to minimize GHG emissions.

Best Practices for Delivery



Avoid queuing on
public roadways



Limit idle time



Avoid tailgate
banging

Best Practices for Delivery

- Confirm the specific location where the soil is to be deposited, with the deposit site prior to unloading,
- Comply with all site and safety controls, including traffic flows and speeds, at the deposit site,
- Remain with their trucks while unloading,
- Check trailer box before lowering for any leftover material and cleanliness,
- Wash vehicle wheels before leaving the site to avoid contamination on the road and surrounding areas (where feasible and facilities are provided),
- Clean out their trailers after depositing every load to avoid contamination, and

Dumping at a site unauthorized by the Project Leader is illegal and subject to fines and penalties



Reduce Costs and GHG Emissions

Which of the following practices will improve your fuel efficiency?

- a. Letting your vehicle warm up for three to five minutes — if the temperature is below 0 degrees Celsius, allow it warm up for seven to 10 minutes. Do not rev the engine; let it warm up gradually
- b. Always using the clutch
- c. Turning off your engine when stopped
- d. Using cruise control, where appropriate
- e. Changing gears smoothly



ANSWER: ALL OF THEM!

Additional Ways to Reduce your GHG emissions and save money!

- There are more fuel efficiency practices including ensuring oil and air pressure are in their normal operating ranges during start-up and turning off the retarder when you don't need it
- Use a GPS that helps find the best routes working to reduce distance travelled, while also reducing the amount of travel time and considering traffic, consider integrating a tracking system with this service

Hauling Record – verbal details

From Jan. 1, 2021 to Jan. 1, 2022 the hauler is responsible collecting and providing the following **verbal details**:

1. The location at which the excess soil was loaded for transportation.
2. The date and time the excess soil was loaded for transportation.
3. The quantity of excess soil in the load.
4. The name of an individual who may be contacted to respond to inquiries regarding the load, including inquiries regarding the soil quality.
5. The name of the corporation, partnership or firm transporting the excess soil, the name of the driver of the vehicle and the number plates issued for the vehicle under the *Highway Traffic Act*.
6. The location at which the excess soil is to be deposited.

Hauling Record – verbal details

Too much to remember?

Due to the nature of the required information we recommend haulers and hauling management companies integrate use of a printed or electronic form as soon as possible to collect this information.



Hauling Record

Beginning Jan. 1, 2022 the hauler is responsible for collecting and filling out the information in either paper or electronic the following information.



Hauling Record

Beginning Jan. 1, 2022 the hauler will need to collect in either paper or electronic the following information:

At the Project Area:

1. The location at which the excess soil was loaded for transportation.
2. The date and time the excess soil was loaded for transportation.
3. The quantity of excess soil in the load.
4. The name of an individual who may be contacted to respond to inquiries regarding the load, including inquiries regarding the soil quality.
5. The name of the corporation, partnership or firm transporting the excess soil, the name of the driver of the vehicle and the number plates issued for the vehicle under the *Highway Traffic Act*.
6. The location at which the excess soil is to be deposited.

Hauling Record

Beginning Jan. 1, 2022 the hauler will need to collect in either paper or electronic the following information:

At the Deposit Site:

1. The date and time the load of soil is deposited.
2. The name and phone number of the individual at the Class 1 soil management site, Class 2 soil management site, reuse site, local waste transfer facility, landfilling site or dump who acknowledges that the excess soil has been deposited on the date and at the time specified under paragraph 1.
3. A declaration by the individual mentioned in paragraph 2, stating that he individual acknowledges the deposit of the excess soil.

Paper vs. Electronic Hauling Records

TYPE	PROS	CONS
PAPER	<ul style="list-style-type: none"> - No special technology required - No energy or power to operate - Easy to use 	<ul style="list-style-type: none"> - Easier to lose - Administration costs around filing, scanning, and record keeping - Legibility can become an issue
ELECTRONIC	<ul style="list-style-type: none"> - Can integrate information sharing to reduce administration - Easy look-up and reference - Reduce need for filing 	<ul style="list-style-type: none"> - May require additional training - For companies with many sub-contractors it may be more difficult to get them all on the same system

Best Practice: Though not required it is recommended that hauling management companies and independent operators investigate the use of electronic systems.

Hauling Record Template

ONEIA has drafted free templates. These may be helpful references to ensure you have the information required on your bill of lading.

Versions have been provided in:

- Word
- Excel
- Multiple Sites

They can be downloaded and customized:

www.oneia.ca/excess-soil

<Insert your company logo here>				Excess Soil Hauling Record			
				P.O/Job/Ticket # _____			
GENERATOR (PROJECT AREA)							
Contact Name:						Tel:	
						Email:	
Generating Company		Address		City, Province		Postal Code	
GENERATING SITE (PROJECT AREA)							
Address				City, Province		Postal Code	
Pick-up Location:							
Date Loaded:				Time Loaded:		Lat.:	
						Long.:	
Soil Information							
Profile/ID #:				Other Notes:			
Quantity Loaded		Yards:		Tons:			
		Meters:		Tonnes:			
TRANSPORTER							
Transport Company		Address		City, Province		Postal Code	
Driver Name:						Tel:	
						Email:	
License Plate #:							
RECEIVER							
Receiving Company		Address		City, Province		Postal Code	
Date Unloaded:				Time Unloaded:		Lat.:	
						Long.:	
<i>I hereby certify that the above listed material has been accepted and that the materials are representative of the materials outlined in the above.</i>							
Authorizer Name:						Tel:	
						Email:	
Signature:							

Highlighted sections denote required information to meet Section 18 (Information to be Provided) of Ontario Regulation 406/19: On-Site and Excess Soil Management

Case Study: Electronic Records

Benefits of electronic tracking systems:

- Instant hauling record uploads
- Live, real-time tracking
- Route optimization leading to timesaving, reduced fuel costs and GHG emission reductions
- Simplifies administrative and filing processes
- Reduces management of paper records and storage [saving time and reducing errors such as lost tickets](#)

Record Keeping

Quiz Time!

How long do haulers/project leaders and deposit sites need to keep the hauling record for under the regulation?

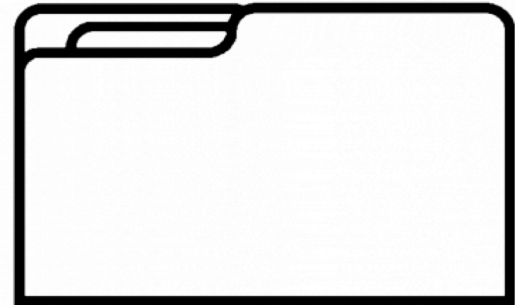
- a. I don't have to keep it, it's the responsibility of the Project Leader.
- b. Two Years
- c. Ten years
- d. Forever!

TWO YEARS

From the date of delivery, **SEVEN YEARS** for all other excess soil management documents

Best Practices for Record Keeping

- Keep daily summary of all loads
- Provide a weekly summary of loads to the Project Areas including rejected loads
- Consider using a GPS and/or electronic tracking/records system
- Consider keeping the documents longer than the required seven years for excess soil management documents



Rejected Loads

The Project Leader is always responsible for selecting the final deposit site, even in the case of rejected loads.

Project Leaders are required to have a contingency plan in place when...

...the project leader for a project is required to file a notice on under section 8 in respect of the project (on the Excess Soil Registry)

(2) The report shall be based on the results of any required assessment of past uses of the project area, any required soil characterization report and any information gathered in respect of the potential sites at which the excess soil may be deposited and shall include the following:

2. Identification of contingency measure to be implemented in the event that the excess soil cannot be deposited at a site identified under paragraph 1 including the location of an alternate site.

Best Practices for Rejected Loads

Deposit site to contact the Project Area when a load is rejected.

Include language in contracts outlining fair cost recovery for haulers when a load is rejected.

Where possible, efforts should be made to directly deliver rejected loads to another local deposit site to reduce greenhouse gas emissions from hauling.

Project Leader should inform the Project Area QP when a load is rejected.

What is Liquid Soil?

Liquid soil is soil that has a slump of more than 150 millimetres using the Test Method for the Determination of “Liquid Waste” (slump test) set out in Schedule 9 of Regulation 347. The Regulation applies to any project that involves the excavation of soil and includes any removal of liquid soil or sediment from a surface water body or stormwater management pond ([O. Reg. 406/19, 1\(1\) “Project” definition](#)).



Hauling Liquid Soil

REGULATORY REQUIREMENT

1. Vehicles must have a valve system
2. Valves are locked when the operator is not with the vehicle
3. Vehicle operator is present when unloading.
4. All stops must be tracked on a hauling record

BEST PRACTICES

1. Track all stops using a multiple load hauling record
2. Where sites are at higher risk of contamination use a risk analysis framework

Multiple Loads

Despite the obvious challenges this creates, even for multiple loads **it is still the responsibility of the Project Leader (or excess soil source site) to select the final deposit site.**

As excess soil generators for multiple sites are generally smaller, they may not be aware of their regulatory obligations under O. Reg. 406/19, haulers should assist in educating the generator of their responsibilities and may support them in selecting an appropriate deposit site when needed.

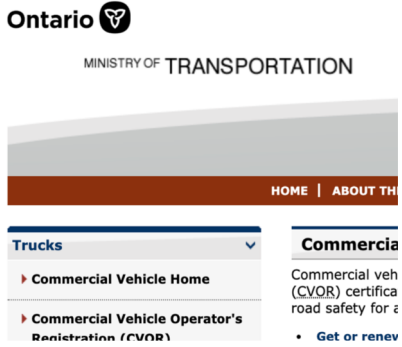
Haulers should consider delivering the excess soil to a facility licensed with an appropriate Environmental Compliance Approval (issued by the MECP), to ensure proper management if and when upon sampling the load is determined not to be excess soil, but contaminated soil and/or waste material.


Hauling Management Companies

To demonstrate due diligence and ensure the health and safety of their employees, hauling companies should consider adopting the following best practices in their training and communications:

- Provide proper training on current regulatory requirements to their employees and contract operators, communicate any updates to the Regulation in a timely manner and provide opportunities to review the Regulations as needed
- Ensure drivers know how to follow and properly fill out the Hauling Record
- Ensure the information they collect includes the required information under the regulation and integrate as soon as possible highlighting the legally required sections

Best Practices for Project Leaders



Ontario 

MINISTRY OF TRANSPORTATION

HOME | ABOUT TH

Trucks

- Commercial Vehicle Home
- Commercial Vehicle Operator's Registration (CVOR)

Commercial veh (CVOR) certifica road safety for

- Get or renew


Hire reputable hauling companies



Consult with haulers where appropriate




Inform haulers of route restrictions



Use real-time load tracking



Create traffic and transportation plan



Conduct an audit of the hauling process

Best Practices for Deposit Sites

SITE CONTACT INFO

IN CASE OF EMERGENCY CALL 911

Site address _____

24-hour site contact for urgent response _____

Phone: _____

Non-urgent concerns _____

Contractor: _____

Phone: _____

Email/website: _____

Clear signage



Keep site well
maintained



Clear communication
and traffic control



Screen loads prior to
unloading



Communicate rejected
loads to project area



Have a traffic and
transportation plan

Best Practices for Traffic and Transportation Management Plans

Considerations should include:

- Location and configuration of site entrances
- Limit truck queuing and parking on public roadways
- Where feasible, integrate dust control and mud-tracking prevention/truck cleaning
- Limit noise related to truck traffic, where feasible configure the site to use existing physical barriers such as buildings, fences or soil piles to act as a sound barrier
- Hauling routes (previously discussed)
- When preparing a Traffic and Transportation Management Plan those managing excess soils should consult with local upper-tier and lower-tier municipalities regarding appropriate transportation routes

On-Demand Training



BEST PRACTICES FOR HAULERS

- CONTEXT
- SAFE CONTAINMENT & SHIPPING
- LOADING & TRANSPORTING
- DELIVERY
- HAULING RECORD
- SPECIAL CONSIDERATIONS
- ADDITIONAL RESOURCES
- HOW TO USE THIS TRAINING

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O. Reg. 406/19
October 2020

 **ONEIA**
ONTARIO ENVIRONMENT
INDUSTRY ASSOCIATION

www.oneia.ca/excess-soil

Thanks to our Steering Committee

ONEIA Working Group Leads:

- Ellen Greenwood, *Greenwood & Associates*
- D. Grant Walsom, *XCG Consulting Limited*
- JP Marini, *Terra Nova Environmental*

Steering Committee Members:

- Michael Collins, *Waste Management of Canada*
- Dan Jackson, *DJ Jackson Hauling*
- Malcolm Robertson, *Ontario Excavac*
- Arvin Malhi, *Joseph Haulage*
- Richard Nelson, *Badger Daylighting*
- Bob Punia, *Ontario Dump Truck Association*
- Ryan Moniz, *PATH (Project Area Tracking Hub), Green for Life (GFL)*
- Francine Kelly-Hooper, *Stantec*
- Denise Lacchin, *Golder Associates*
- Al Durrand, *Residential and Civil Construction Association of Ontario (RCCAO)*
- Kevin Goldberg, *SoilFlo*
- Marc Paquet, *TraceNet*
- Bir Singh, *Tread*
- Aroni McCutcheon, *Ministry of Transportation Ontario (MTO)*
- Laura Blease, *Ontario Ministry of the Environment, Conservation and Parks (MECP)*

Best Practices Documents & Training



Temporary Sites

Info Session

Thurs. Jan. 21, 12:00-1:00



Qualified Persons

Info Session

Thurs. Jan. 28, 12:00-1:00

www.oneia.ca/excess-soil

ONEIA is here to help

- Our subcommittees regularly meet to discuss emerging issues and broader industry concerns
- We help companies work together to address issues of common concern
- Feel free to reach out to the office to connect with a committee, sign up for our e-newsletter, or follow our social media channels



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Thank you for joining us!

To become an ONEIA member and connect to our network, please visit www.oneia.ca or call 416-531-7884 x212 or e-mail info@oneia.ca



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