

# Provincial Landfill Program

Ministry of Environment

SARM Division 4 Meeting

June 13, 2019

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# Solid Waste Management Advisory Committee

- Six committee members, including presidents of SUMA and SARM
- Chaired by Richard (Porky) Porter
- Two main responsibilities:
  1. Provide formal recommendations to the Minister of Environment for reducing red tape in *The Municipal Refuse Management Regulations*; and
  2. Provide formal recommendations to the Minister for the direction and implementation of the Solid Waste Management Strategy.

# Solid Waste Management Advisory Committee

- April 2, 2019: committee completed consultation activities and presented final recommendations to the Minister of Environment
- The Committee's recommendations will help the province:
  - identify regulatory improvements for municipal waste management; and
  - meaningful actions to help reduce, divert and manage solid waste
- The Ministry of Environment's 2019-20 Operational Plan commits to implement the Solid Waste Management Strategy in the fall of 2019

# Solid Waste Management Regulations

Waste Disposal Grounds (and Transfer Stations) are permitted by the Environmental Protection Branch

- EMPA 2010
  - Industrial Effluent Works Permit (Industrial Waste Works Permit)
    - Private
    - Municipal, accepts more than 20 per cent industrial waste
    - Requires financial assurance in place
- *Municipal Refuse Management Regulations, 1986*
  - MRMR permit
    - Municipally or government owned
    - Accepts less than 20 per cent industrial waste
    - No financial assurance

# Solid Waste Management Regulations

## Code Chapters

- dependent on the outcome of the MRMR review
- no plans for landfill chapter to move forward at this time
- moving forward with review and presentation of a Transfer Station Code Chapter in 2019-20 to the Code Committee

## Guidance Documents

- available to provide information on regulatory processes for activities from construction to closure
- new documents being developed include composting, disposal of cannabis, and disposal of hydrovac material

## Best Management Practice

- most common is Alberta and Manitoba

# Solid Waste Management Regulations

Ministry of Environment objectives:

- protection of the environment and human health by ensuring landfills are constructed and operated in a manner to reduce impact on groundwater, surface water, and land
- enhanced education for communities in the area of waste management
- sharing of information and community best practices for design, construction, operation and closure

# Waste Disposal Ground Construction

- evaluate waste disposal options to determine the best fit for the municipality – own landfill, regional landfill, transfer station
- If proposing a new location, engage a qualified person (QP) to complete site suitability assessment of the location
- QP to design the landfill to best management practices and account for site receptors (e.g., how high is the groundwater table, type of soil, other receptors)
- submit application to construct landfill

# Waste Disposal Grounds Construction

## Ministry:

- Review construction application
- Issue Permit to Construct

## Stakeholder:

- Private landfills need to submit financial assurance prior to construction approval being granted.
- Ensure construction according to design with QA/QC
- Submit operations plan & emergency response plan prior to completion of construction
- Submit application to operate landfill 60 days prior
- Submit QA/QC and final as constructed drawings after construction



# Waste Disposal Grounds Closure

## Formal Closure

- Inform the ministry 90 days prior to closure
- Post a notice at the entrance
- Apply interim (daily cover) to landfill

## Next Steps

- The ministry works with stakeholders on the time required to complete the next steps such as site assessment and applying final cover – typically two to five years, depending on the site
- **Closure report** including, but not limited to:
  - site plan
  - landfill cover design
  - removal of infrastructure or other material such as metals pile
  - site grading if required
  - contaminating lifespan of landfill, may include groundwater monitoring program going forward

# Landfill Cover Design

The Standards for Landfills in Alberta Section 6 establish a minimum requirement for design as:

- i. A drawing that shows the proposed geometry of the final cover, which shall have a slope at a minimum of 5 per cent and a maximum of 30 per cent;
- ii. A final cover system consisting of three layers constructed in the following order from bottom to top:
  - a) 0.60 metres barrier layer with a maximum hydraulic conductivity of  $1 \times 10^{-7}$  metres per second;
  - b) Subsoil; and
  - c) 0.20 metres of topsoil.
- iii. Subsoil depth in (ii)b. shall be:
  - a) 0.35 metres for pasture or recreational uses; or
  - b) 0.80 metres for cultivated land use or forestry;
- iv. Vegetation establishment as per the intended land use;
- v. **Alternate final cover systems may be authorized.**

# Environmental Site Assessment

An ESA is triggered by:

- permit condition that is used to establish groundwater monitoring at an operating site
- the closure of a landfill

ESA needs to follow the Site Assessment Code Chapter

ESA scope for small municipal landfills developed based on risk for offsite impact

- If a phase I review indicates that there is low risk of the landfill leachate, then groundwater monitoring may not be required
- long term groundwater monitoring should only be recommended where warranted

# Qualified Persons

- small municipalities rely heavily on QPs to provide services for their landfills
- QPs follow regulations, code chapters and best management practices
- QPs should be identifying the work that is required to ensure protection of human health and the environment
- QPs are required to provide a certificate when submitting site assessment
- educating clients on options and associated costs

## Information

- More information on the construction, operation and closure of waste disposal grounds can be found at: [publications.saskatchewan.ca](http://publications.saskatchewan.ca)
- Client Service 1-800-567-4224 or [centre.inquiry@gov.sk.ca](mailto:centre.inquiry@gov.sk.ca)

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# Questions?

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