

SWRC Fall Workshop 2021

Built to Last: Landfill Construction Rules and Processes

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Overview

- Landfill Design Requirements for Landfill Cells
- Timelines and Process for Approvals
- Regulatory/Permit Requirements
- Common Issues

Environmental Assessment

- All new sites and cells should be screened by the ministry's Environmental Assessment branch, since they may trigger an Environmental Assessment
- Stakeholder consultation may be required
- Contact the Ministry of Environment for more information

Landfill Design Requirements

- Prior to constructing a new cell, the proponent must submit an application to construct to the Ministry of Environment for review and approval
- Designed by a Qualified Person who possesses the core skills and competencies to design a landfill

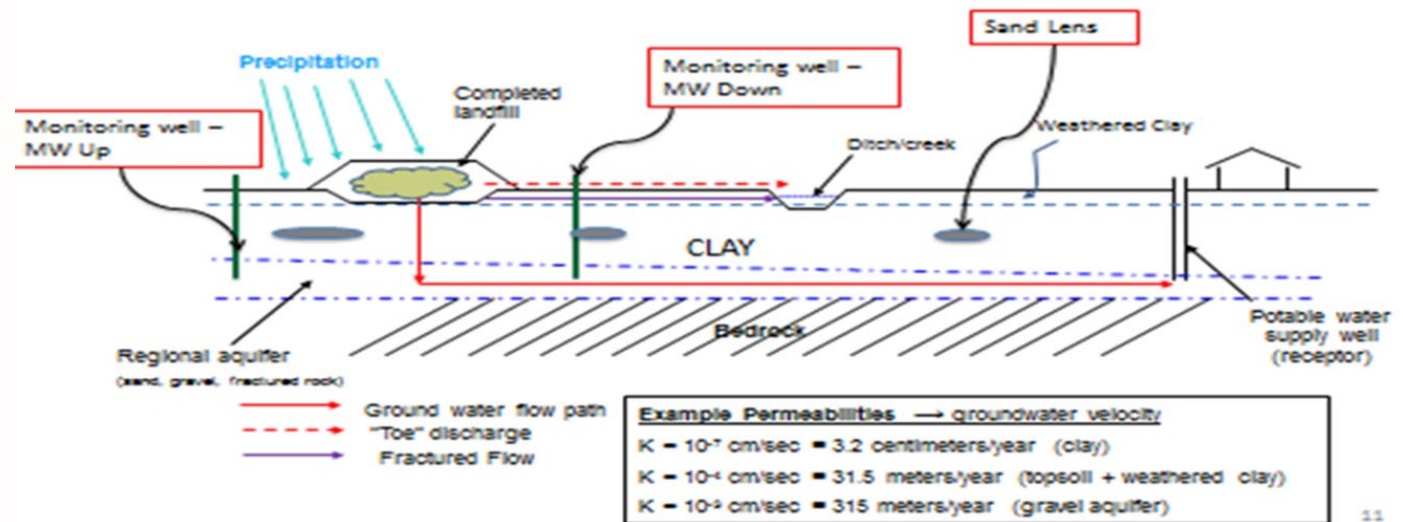
Landfill Design Requirements

- Best management practices:
 - *Standards for Landfills in Alberta*
 - *Standards for Landfills in Manitoba*
- Engineered design that includes a seepage barrier protection layer (liner) and leachate collection



Landfill Design Requirements

- Design needs to be based on site suitability
- Any deviations from the best management practice need to be clearly identified and scientifically justified



Landfill Design Requirements

- Location:
 - Setbacks in accordance with section 8(2) of the *Municipal Refuse Management Regulations*
 - A waste disposal ground is not to be located:
 - a) within 500 metres of:
 - i. a restaurant, canteen, cafeteria or any other place where food is cooked or prepared for human consumption or is consumed;
 - ii. motel, hotel, domestic residence or any other building occupied as a residence; or
 - iii. a school, church, community centre or recreation facility or similar public building; or
 - b) within 100 metres of a highway or a cemetery within the meaning of *The Cemeteries Act*.
- May require stakeholder engagement
- Check with local bylaws

Landfill Design Requirements

- Design plan:
 - a) Include the location and the surrounding land use
 - b) Include proposed activities, anticipated volumes, types of waste, estimated tonnage of waste disposed each year and during the lifespan of the cell

Landfill Design Requirements

- Design plan:
 - a) Preliminary design information including:
 - Site location
 - Site description
 - Site history
 - Site characteristics
 - Site constraints
 - Site risks
 - Site opportunities
 - b) Detailed design information including:
 - Site plan
 - Site layout
 - Site description
 - Site history
 - Site characteristics
 - Site constraints
 - Site risks
 - Site opportunities
 - c) Detailed information on design and construction details including:
 - Seepage barrier system
 - Surface water management
 - Groundwater monitoring system
 - Landfill gas management system
 - Leachate collection and management system
 - Final cover system
 - Details on QA/QC during construction



Timelines and Process for Approvals

- Submit an application to construct as soon as possible
- Average timeframe for an approval can range from four to six months
- Please submit all applications and documents through the Ministry of Environment Business Portal

Permit to Construct Requirements

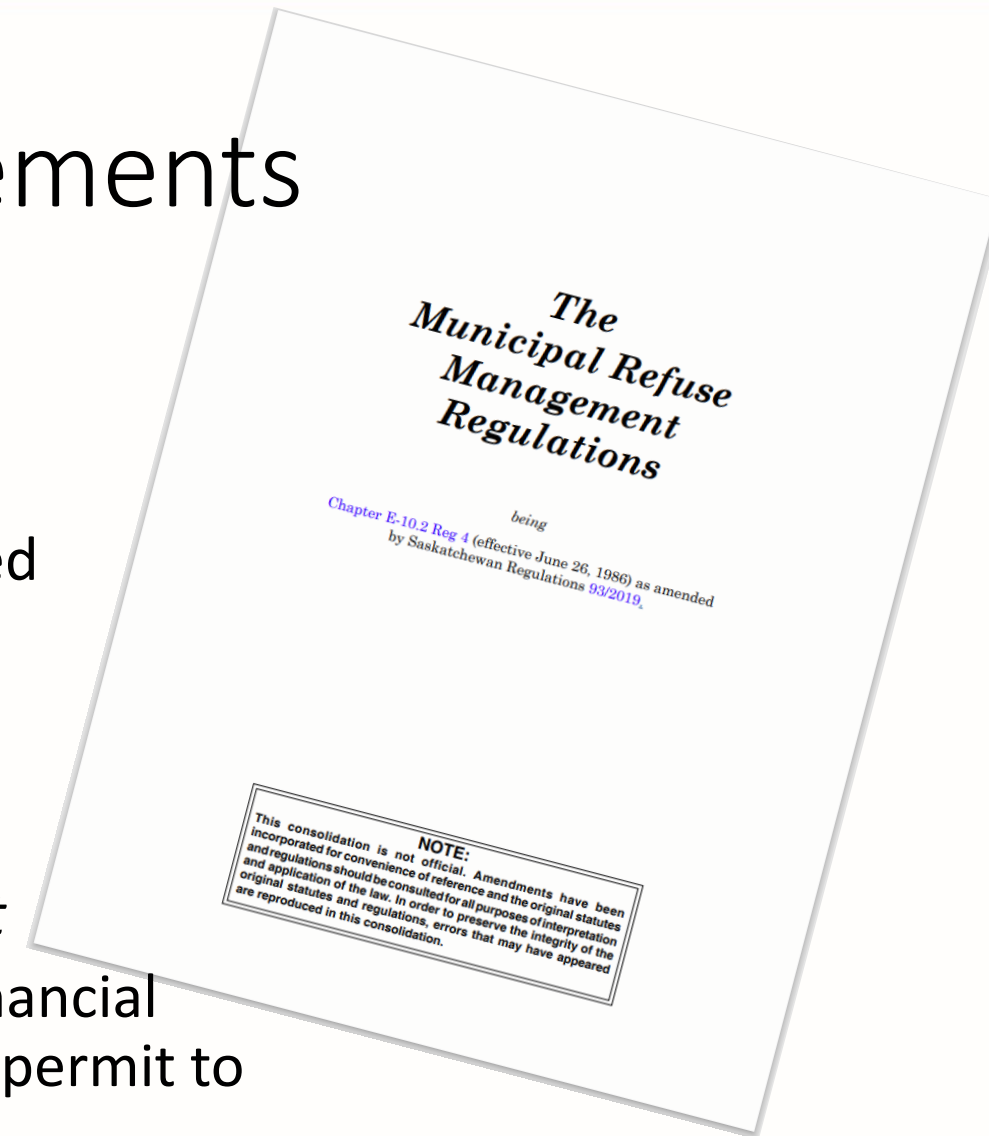
- A new cell cannot be commissioned until all documents required in the permit to construct have been submitted and approved and a permit to operate is issued
- Any design change/modification requires prior written approval from the Ministry of Environment

Permit to Construct Requirements

- Submit QA/QC report including final as constructed drawings no later than 90 days after construction completion
- Plan to transition from current waste cell to new cell, if applicable
- Submit Operations Plan and Emergency Response Plan 60 days prior to construction completion
- Submit Decommissioning and Reclamation Plan no later than 60 days after construction completion
- Landfill cell to be commissioned within 30 days of when a permit to operate is issued

Regulatory Requirements

- Municipal waste disposal ground
 - *Municipal Refuse Management Regulations*
 - Decommissioning and Reclamation Plan required
 - No financial assurance required
- Private or Industrial Waste Disposal Ground
 - *Environmental Management and Protection Act*
 - Decommissioning and Reclamation Plan and Financial Assurance required prior to the issuance of the permit to construct



Common Issues

- Missing site suitability information
 - Depth to groundwater
 - Setbacks
 - Receptors
 - WSA water well search
- No justification for design
 - Site suitability
 - No set back information provided
 - Deviations from best management practice
- Not stating what best management practice will be followed

Common Issues

- Not allowing enough time for the approval process
- Not consulting the Ministry of Environment early on in the process

Resources

- Client Support Services (1-800-567-4224 or centre.inquiry@gov.sk.ca)
- Solid Waste Guidance Documents
<https://publications.saskatchewan.ca/#/categories/33>

Questions?

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