

Landfill Decommissioning and Reclamation (Closure) Guidance

General

This factsheet provides information required for the Ministry of Environment to expedite the approval process for landfill closure and decommissioning. Landfill closure and decommissioning is regulated by [The Municipal Refuse Management Regulations, 1986](#) for municipal landfills, and [The Environmental Management and Protection Act, 2010](#) for privately owned, industrial landfills and all other waste management. Proper closure and decommissioning of landfills are required to protect the environment from potential contamination to air, groundwater, surface water and soil. The ministry keeps a public inventory of closed landfills and impacted sites. For questions about hazardous waste, refer to [The Hazardous Substances and Waste Dangerous Goods Regulations](#).

Decommissioning and Reclamation Plan

The decommissioning and reclamation plan should include:

- A list of any permits.
- Owner contact information.
- Description of communities and industries served during the landfill's operating phase.
- Total quantity and description of waste disposed of at the landfill as of the closing date.
- Period of time the landfill was in operation.
- Remaining life expectancy of the facility (if applicable).
- Physical closure steps (e.g. interim cover, litter clean up) to be completed at closure (if applicable).
- Plan for any recyclable materials and infrastructure that needs to be removed from the site.
- Site plan that shows adjacent land, land uses, location of drinking water wells and surface water bodies within one kilometre.
- Final design and drawings for landfill cover system based on best management practices for landfill closure.
- Geographical location of the boundary, waste footprint, groundwater monitoring wells, leachate holding ponds, and storm water detention ponds/manholes/sumps for leachate collection, as well as the current status of each.
- Post-closure care (e.g. environmental monitoring, inspections and reporting).
- Cost estimates for completion of all works.

As the site is nearing closure, a more detailed D&R plan is required and will need to include the following:

- Remaining life expectancy of the facility – anticipated closure should be closure to an actual date.
- Period of time that the landfill was in operation.
- Total quantity and description of waste disposed of at the landfill as of the closing date.
- Physical closure steps (e.g. interim cover, litter clean up) – will detail what is required and how it will be achieved.
- Plan for any recyclable materials and infrastructure that needs to be removed from the site, including resources, companies, end locations and dates.
- Final engineered design and drawings of final waste elevation, including side slopes and final cover system based on best management practices for landfill decommissioning. The drawing will require an update in the last revision prior to closure to tighten up the operations on site and ensure compliant closure is achieved.

- Geographical location of the boundary, waste footprint, groundwater monitoring wells, leachate holding ponds and storm water detention ponds/manholes/sumps for leachate collection, as well as the current status of each.
- Decommissioning of other supporting infrastructure – removal of buildings, leachate and surface ponds, equipment and signage.
- Completion of ESA or if ESA completed, CAP work completed or monitoring results (if applicable).
- Post-closure care for intended end land use (e.g. environmental monitoring, inspections and reporting).
- Estimated contaminating life span of the landfill inferred from an interpretation of environmental monitoring or site assessment results, detailing a plan for ongoing monitoring to meet selected endpoint criteria for the site, conducting inspections.
- Cost estimates for completion of all works – updated with the plan.

Steps to Close and Decommission a Landfill

Step 1 – Application for Landfill Closure

Landfill owners should close the landfill if the owner no longer intends to accept waste. As outlined in the permit to operate, the owner should contact the ministry at least 90 days before closing the site. The notice should be submitted through the Ministry of Environment’s [Online Business Portal](#).

Step 2 – Physical Landfill Closure

Once the landfill has closed (based on the timeline that was submitted to the ministry in Step 1), the site must be physically closed immediately while waiting for site decommissioning.

Requirements for closing a site:

1. Provide written notice to the environmental protection officer.
2. Post a notice at the entrance warning against trespassing, illegal dumping and vandalism.
3. Ensure the site is clean of any litter, unused containers, unused tanks or waste in temporary storage areas, including recyclable materials – dispose of those items.
4. Place an interim cover over the landfill to stop blowing litter and reduce wildlife and rodent issues.

Step 3 – Implementation of the Decommissioning and Reclamation Plan

Once written notice of closure has been received, the ministry will work with the landfill owner on the decommissioning process.

The following provides a list of scenarios for landfill decommissioning:

1) For a new facility or expansion to an existing facility:

New waste management facilities or facilities expanding their operations at their current site will be required to provide a D&R plan for the whole facility as part of the permit to construct requirements. The plan will need to be submitted for review and approval after construction of the works is completed. For private or non-municipal facilities, the D&R plan, along with a financial assurance (FA) in the form (i.e. cash, surety bonds) and amount acceptable to the Minister, must be provided prior to operation. For municipal facilities, it is expected that municipalities ensure funds are available at the time of closure for site decommissioning and reclamation.

2) **For operating facilities without a D&R plan:**

Please refer to the facility's current permit to operate for D&R requirements. For more information, please contact the Ministry of Environment's Inquiry Centre at 1-800-567-4224 to speak to an Environmental Protection Officer.

3) **For operating facilities that are closing without a D&R plan (facilities that plan on closing in less than five years):**

The timeline for the D&R plan will be site specific and dependant on many factors, such as risk of the site. Typically, landfills that are closing in the short term (less than five years) will need to follow the Site Assessment and Corrective Action Plan (CAP) Code chapters as part of site closure/decommissioning. Below are a few scenarios for landfills closing in the short term:

- A) If the site is still operational and already has an approved monitoring program in place, then a site assessment and a CAP may not be required. For example, if a site has extensive monitoring and the monitoring program indicates it is considered low risk, then the site may only be required to submit a D&R plan, without a site assessment and CAP. If a site does not have a well-established monitoring program or the program indicates that the site is high risk and potential adverse environmental effects may be occurring, then a site assessment and CAP may be required as part of closure to ensure all site risks are appropriately mitigated.
- B) If the site is still operational and the proponent has already completed the site assessment but not a CAP, then the D&R plan can be included in the CAP.
- C) If the site is still operational but a site assessment and CAP have not been completed, then the D&R plan may be required earlier, depending on the timelines for the site assessment and CAP completion. For example, if a proponent wants to close a site and decommission it within three years, but the site assessment and CAP were not due for six years, then the D&R plan would be required within three years (to coincide with the closure timeline) and would need to ensure all decommissioning work as part of site closure is completed. Once the site assessment and CAP have been completed, any additional decommissioning work as recommended by the CAP would need to be implemented at that time.

4) **For operating facilities that are closing with a D&R plan:**

The site will need to ensure that an updated D&R plan is submitted to the ministry for review and approval prior to closure. Once the D&R plan is approved, the facility will need to follow the approved D&R plan and any other conditions as required by the ministry.

5) **Closed facilities without a D&R plan:**

Depending on the closure timeline, the site may need to follow the Site Assessment and Corrective Action Plan (CAP) chapters of the Saskatchewan Environmental Code for impacted sites. The D&R plan for these sites can be included in the CAP.

See the [Guidance Document: Impacted Sites](#) for the [Site Assessment](#) and [Corrective Action Plan](#) chapters of the Saskatchewan Environmental Code.

Final Landfill Cover

The final cover on the landfill shall be designed by a Qualified Person, based on best management practices.

An example of a final cover system based on best management practices can be found in section 9(1) of the [Alberta Code of Practice for Landfills](#), which provides the amount of and type of soils required for each layer, the slope of the final cover, and requires that the cover be vegetated as per intended land use.

Post-closure Care

Owners should follow best management practices for post-closure care to maintain public safety and protect the environment. A Qualified Person, as agreed to by the ministry, should be consulted to ensure post-closure care is followed in accordance with the Corrective Action Plan.

Document Submissions

Landfill closure written notice, and decommissioning and reclamation plans can be submitted through the Ministry of Environment's [Online Business Portal](#).

Definitions

Best Management Practice – A technique or methodology that is proven as being the best to use in a particular business or industry; usually described formally in regulations or guidelines. (Generally from another jurisdiction, typically [Standards for Landfills in Alberta](#) or [Standards for Landfills in Manitoba](#)).

Site Assessment – An investigation and report (equivalent to a Phase II ESA for an *acceptable solution*) used to characterize physical site conditions and identify potential or existing environmental impacts. According to the Canadian Standards Association, the results of the Phase II ESA Standard are used to determine design specifications, ongoing monitoring requirements and corrective action.

Corrective Action Plan – A plan that details the methods to prevent, minimize, mitigate, remedy or reclaim adverse effects.

Decommissioning – The dismantling of infrastructure, land reclamation and remediation of a facility undertaken once the landfill has stopped accepting waste.

Qualified Person – A person who possesses the knowledge, experience and training to perform a particular task or duty.

Contact and References

Saskatchewan Ministry of Environment

Tel: 1-800-567-4224 (toll-free in North America) or 306-787-2584

Email: Centre.Inquiry@gov.sk.ca