

Landfill Criteria for Municipal Solid Waste

Guideline

The purpose of this document is to summarize key information contained in the second edition of Ministry's guidelines called "Landfill Criteria for Municipal Solid Waste" ("Criteria"). This guidance document outlines how landfills should be constructed, operated and monitored to ensure that the environment is protected.

What is the scope of the guideline?

The document covers all aspects of landfill design, operation and closure.

What landfills does this guidance apply to?

This guidance applies to all Municipal Solid Waste (MSW) landfills in province that receive waste after the date of issuance of this guidance.

Are closed landfills included in the scope of the new guidance document?

Closed landfills are excluded from the scope of this guidance.

How does the new guidance document apply to existing MSW landfills?

Existing landfills are generally included in the scope of this guidance document. However, those existing landfills might be specifically excluded from some siting and design requirements that are not feasible or implementable.

What is the guideline for municipal solid waste landfills used for?

The "Criteria" provide comprehensive guidance to landfill owners and operators, Qualified Professionals and Ministry staff on environmentally sound landfilling practices and procedures that are consistent with legislated requirements and desirable environmental outcomes.

Why was the second edition of the guideline developed?

Since release of the first addition in 1993, landfill practices have changed considerably. Many MSW landfills have implemented new practices. The Criteria needed to be brought in-line with current best practices and to provide more detailed standards to ensure clarity and consistency province-wide. The second edition of the "Criteria" was developed by a group of experts from the Ministry of Environment and industry with extensive knowledge of landfill science and technology.

How is the second edition different?

The second edition of the "Criteria" builds on the original. The document reflects current best management practices and incorporates new standards and detailed operating practices that have been developed over the years to enhance environmental protection.

The second edition includes references to new regulatory and policy requirements in [Landfill Gas Management](#) and [Contaminated Sites Regulations](#), developed after 1993.

Are the requirements set by this guidance mandatory for landfill owners and operators?

The requirements outlined in this guidance are not mandatory requirements but are recommended practices. They may become legally enforceable if incorporated into solid waste management plans, operational certificates or permits that are issued under the *Environmental Management Act*.

All landfills are unique and have many site-specific issues and design features. How was this aspect addressed in the new guidance?

The “Criteria” reflect Ministry expectations regarding the standards for landfilling MSW in British Columbia. The document also acknowledges that all landfills are unique and have many site-specific issues that need to be addressed. Where specifics are not provided, flexibility in the application of the guidance recommendations and professional judgement may be required to achieve an appropriate level of environmental protection. A recommended standard or practice can be modified when an alternative can provide an equivalent or better level of environmental protection.

What are the major highlights of the new document?

- An expectation that all new municipal landfills would be constructed with engineered liners to serve as an impermeable layer for leachate containment and leachate management rather than relying solely on natural attenuation processes and natural barriers such as clay or rock.
- A recommended status check for existing landfills and preparation of a Landfill Conformance Review; and, reasonable timelines to implement upgrades if needed.
- A recommendation for more structured and comprehensive assessments including:
 - A Hydrogeology and Hydrology Characterization Report and
 - A Groundwater and Surface Water Impact Assessment.

- Inclusion of detailed requirements for the Design, Operations and Closure Plan.
- Incorporation of landfill “contaminating lifespan”.

Will the guideline be updated?

Yes. Although the Guideline is the result of considerable effort and thought, changes will be needed overtime to reflect the progress of landfill science and engineering and to incorporate improved operational practices.

Resources

[Landfill Criteria for Municipal Solid Waste \(PDF\).](#)