

FACTSHEET

REGIONAL OPERATIONS BRANCH | March 2021

Interim Considerations for Landfills accepting Contaminated Soils

The considerations outlined in this factsheet are based on the Ministry of Environment and Climate Change Strategy (Ministry) interim operational policy that was implemented in January 2021 to guide Ministry staff during the review of authorizations for the disposal of contaminated soil.

The purpose of this document is to help landfill owners, landfill operators, and qualified professionals (QPs) understand the interim considerations that statutory decision makers (SDMs) in the ministry will be considering when assessing applications for landfills to accept or to increase, in any amount, the accepted quantities of contaminated soils. Soil that has a contamination that exceeds the industrial quality standards is considered to be waste and can only be received at a site that is authorized under the Environment Management Act to receive this type of soil. Most of the landfills that are authorized to accept contaminated soil will accept this type of waste soil, as long as it is below any applicable standards that would classify the soil as 'hazardous' in the Hazardous Waste Regulation.

These considerations are in addition to those in existing guidance materials, including the [Landfill Criteria for Municipal Solid Waste](#) (MSW Landfill Criteria) and the [Guidelines for Environmental Monitoring at Municipal Solid Waste Landfills](#). These considerations are based on the recommendations developed between 2019 and 2021 by the ministry from the review of landfills that accept contaminated soils above industrial land use standards. Landfills continue to require site-specific authorizations (permits, operational certificates or approvals) as per the Waste Discharge Regulation.

Considerations

- 1) Landfills should not be sited within a designated community watershed¹.
- 2) Increases to the minimum setback from the landfill footprint to a water supply well, intake, or future drinking water source², when there is a high hydraulic conductivity³ and/or a high hydraulic gradient should be considered.

¹ A community watershed is defined under the [Forest and Range Practices Act](#) (FRPA) as all or part of the drainage area that is upslope of the lowest point from which water is diverted for human consumption by a licensed waterworks.

² Future drinking water source is defined in [Contaminated Sites Regulation Protocol 21](#).

³ High hydraulic conductivity (k) was identified as equal to or greater than 1×10^{-4} m/s.

- 3) Landfills should not be sited over an aquifer if the presence of the landfill creates a high-risk aquifer classification.
- 4) Applications should explicitly list the beneficial uses of contaminated soils at landfill sites and limit its use to within the landfill footprint, outline the storage and/or treatment plans for soils not immediately landfilled at landfill sites, and list the quantities of contaminated soil that will be accepted.
- 5) Double composite liner systems should be considered for large landfills⁴ and/or any size of landfill that is nearby (less than 1 km) to a drinking water source. An alternative base design (i.e., single composite liner) may be approved by an SDM if supported by the site conceptual model.
- 6) A double composite liner at the leachate collection point with the ability to detect and contain a leak in the secondary leachate collection system should be considered.
- 7) Retention ponds and surface water ditches should be designed to retain water from and withstand a 200-year storm event.
- 8) Consider using the site conceptual model that looks at source(s)-pathway(s)-receptor(s) as the basis of the monitoring program.
- 9) Identify parameters of potential concern and associated monitoring frequency on a site-specific basis with consideration of the type of contaminated soil authorized to be accepted.
- 10) Include a trigger-response plan in the Environmental Monitoring Plan to be implemented when monitoring results do not comply with the performance criteria.

Application

These interim considerations will be used by ministry SDMs while long-term policy is developed and consulted upon.

The possibility for exemptions, as described in Section 2 of the MSW Landfill Criteria, also extend to these considerations, and remains at the discretion of the SDM. These considerations are intended for landfills that accept contaminated soils but an SDM has the discretion to apply them to MSW landfills.

This Factsheet and considerations do not apply to contaminated soil managed through an Approval in Principal, or activities that are following the Contaminated Sites Regulation and associated authorizations issued for the management of soil generated from remedial activities.

Please note that this Factsheet was prepared for the convenience of the reader. If you require additional information, please contact your regional office of the B.C. Ministry of Environment and Climate Change Strategy.

⁴ Large landfills are those that receive 10,000 or more tonnes of waste for disposal into the landfill site in any calendar year or have 300,000 or more tonnes design capacity, or another size as deemed appropriate by the SDM.

Ministry Contact

For more information, consult our website at:

<https://www2.gov.bc.ca/gov/content/environment/waste-management/garbage/landfills>

If you have questions regarding the Information Sheet or the interim considerations, please email Authorizations.South@gov.bc.ca or Authorizations.North@gov.bc.ca depending on the region where your project is located. If your question is generic in nature and is not associated with any project in particular, please use the online form <https://forms.gov.bc.ca/environment/wda-enquiry/>.

Disclaimer

The guidance provided in this document helps to clarify ministry policy and the provisions of the Environmental Management Act (the Act) and the Waste Discharge Regulation (WDR). This is not a legal document and the information in it does not constitute legal advice or impose any legally binding requirements. Guidance provided in this document does not replace the Act, WDR or any other applicable law. Any amendments to the Act, WDR and other legislation referred to in this document may affect provisions of the guidance; in the event of an inconsistency, the Act, WDR or other applicable legislation will prevail.

REVISION HISTORY			
Approval Date	Effective Date	Document Version	Notes
	Immediately	Ver. 1	Document created by ESB