

## Assessments of Internal Erosion in a Landfill Due to Changes in the Groundwater Level

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**Abstract :** Soil erosion has special consequences for landfills that are more serious than those found at conventional construction sites. Different potential heads between two sides of a landfill and the subsequent movement of water through pores within the soil body could trigger the soil erosion and construction instability. Such a condition was encountered in a landfill project in the southern part of Norway. To check the risk of internal erosion due to changes in the groundwater level (because of seasonal flooding in the river), a series of numerical simulations by means of Geo-Seep software was conducted. Output of this study provides a total picture of the landfill stability, possibilities of erosions, and necessary measures to prevent or reduce the risk for the landfill operator.

**Keywords :** erosion, seepage, landfill, stability

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