

Environmental Impact Assessment of Municipal Solid Waste Disposal Site in Shahrood City

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Abstract : This study investigates the environmental impact of the disposal site located in Shahrood city, focusing on the geological characteristics of the region. Shahrood's disposal site primarily consists of limestone bedrock, overlaid by substantial alluvial deposits. The area's highly permeable soil is anticipated to have a significant influence on groundwater pollution. Spanning 52 hectares, the Shahrood disposal site is situated in the eastern sector of the city. Historically, waste disposal took place on the surface, but recent practices involve on-site trenching. This research involved the collection of soil and water samples near the disposal site, with subsequent analysis of 11 soil samples and 3 water samples. The soil's particle size distribution was determined, and comprehensive analyses were conducted for 35 elements in the soil and 42 elements in water. The study combines the results of these tests with field investigations to evaluate the landfill's impact on the surrounding soil and groundwater contamination.

Keywords : environmental geology, environmental impact assessment, disposal site, heavy metals contamination

Conference Title : ICEGMG 2024 : International Conference on Environmental Geosciences and Marine Geology

Conference Location : Ottawa, Canada

Conference Dates : July 11-12, 2024