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Groundwater contaminant pathways modelling of Near Surface Disposal using Visual MODFLOW

Screening area for near surface disposal siting has been conducted using ArcGIS. Several areas are favorable for disposal siting. Generic safety assessment is required for further investigations suitability of the area. Preliminary site investigation is needed to generate conceptual model and site descriptive model of the site to support generic safety assessment. Safety assessment are needed to provide confidence level, demonstrate performance of the study area. Confidence building is involved in all aspects of developing a safety assessment.

Groundwater models describe the groundwater flow and solute transport processes using integrated conceptual and numerical modeling software. Geology becomes the hydrogeologic parameters such as conductivity and storativity. Hydrologic boundaries that impact the groundwater flow system are known as boundary conditions in a model, and include areas of recharge, rivers, lakes, wells, etc. Groundwater can become contaminated from disposal activities. By using models and parameter, then can simulate the movement of contaminants in the groundwater.

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