

Prediction of phosphorus migration in an unconfined aquifer with visual MODFLOW in landfill area

ABSTRACT

In this study, movement of phosphorus pollution which is leachate to groundwater was investigated in Seri Petaling Landfill. Visual MODFLOW was used to predict subsurface and surface migration of pollution within 10 years. The results of sample analysing of phosphorus has shown its concentration in place of landflll was 2.38 mg/l since the National Water Quality Standard for Malaysia defined the maximum value of phosphorus in groundwater for Class IIA/IIB and III at 0.1 and 0.2 mg/l respectively. The prediction shows phosphorus migrated widely to further places such as river and it has adverse effect on environment, animal and human.

Keyword: Groundwater flow; MODFLOW; Phosphorus; Landfill; Pollution