

Groundwater Vulnerability Assessment to Contamination (Dukagjini Basin, Kosovo)

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Abstract: Groundwater quality has recently suffered deterioration in different alluvial aquifers of Kosova due to waste disposal, mining activity and agriculture activity. A preliminary assessment of vulnerability to groundwater contamination in Drini i Bardhe watershed area was undertaken because of enormous mining activities of river bed alluviums, the presence of the largest urban solid waste disposal site and intensive agricultural activities at the plane part of the river course. The major geological and hydrogeological factors that affect and control groundwater contamination were incorporated into the DRASTIC model. Moreover, a Geographical Information System (Arc Gis 10) was used to create a groundwater vulnerability map of Drini i Bardhe river basin. Aquifer vulnerability assessment aims at predicting areas, which are more likely than others to become contaminated as a result of human activities at the land surface. As a result of the vulnerability assessment, 11% of the Drini i Bardhe basin was classified as being very highly vulnerable, 33% highly vulnerable, 19% vulnerable at moderate levels, 26% low vulnerable and, finally, around 11% of the basin has very low vulnerability

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