

Effects of Solid Waste on the Quality of Underground Water in Benin Metropolis, Nigeria

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ABSTRACT This research paper examines the effects of solid waste on the quality of underground water in Benin metropolis, Nigeria. The study was bore out of the unregulated manner in which both domestic and industrial wastes are deposited in the streets, river courses, buried, burnt and discarded in refuse heaps. Solid waste commonly generated in Benin metropolis includes papers and cartons, food remnants, glass and bottles, plastic and polythene, tin and metals, ashes and dust, textile and rags, aluminium and other minerals. The analysis of physical, chemical and biological parameters of raw water from eight wells collected around the metropolis close to refuse dumps shows that these wastes produces leachates and gases when they are descomposing and are washed by percolating and infiltrating rain water into ground water. However, most of the water parameters tested fall within WHO recommendations while some are not. And recommendations are made to remedy the situations which include encouraging analysis of raw water, the need for enlightenment campaign, ground water exploration in Benin metropolis should be deep and the principle of resource management should be adhered to. These are Reduced, Reuse, Recycle and Restoration of damage resources and environment