

The effect of different urban development types on storm-water runoff quality : A comparison between two Johannesburg catchments

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Abstract

The quality of urban stormwater runoff can be greatly affected by the type of development within the catchment and the level of management of the engineering services. This was investigated using water quality data from 2 areas near Johannesburg, namely Alexandra and Sunninghill Park. Alexandra township supports a mixture of formal and informal (squatter-type) developments, while Sunninghill Park comprises only a formal development. The level of maintenance of the services is considerably different between the 2 areas. The results of the monitoring period have shown that the stormflow off Alexandra is similar to raw sewage, for a number of pollutant concentrations, and the dry weather flow is comparable to settled sewage. The concentrations in the storm- and dry-weather flow off Sunninghill Park are considerably lower. Pollutant loads are greater from the Alexandra catchment by factors of between 20 and 130.

Introduction

South Africa is facing the problem of having to cope with verv

