

## Hydrogeomorphological and environmental geographical land condition of groundwater use areas along the coast of Lake Victoria, west Kenya

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The objectives of this presentation are to show and discuss about hydrogeomorphological and environmental geographical condition, supported groundwater resource used by drilled wells, of coastal areas of Lake Victoria, Kenya. Settlements in the areas are situated on the fluvial-colluvial lowlands and gentle slopes between the Rangwa composite caldera and the circular, outer Gwasi Hill, in the former Suba district (Homa Bay County).

The lowlands consist mainly of fluvio-colluvial deposits corresponding to principal aquifer, which has high permeability coefficient ( $1.0E-5$  to  $1.0E-6$  m/s). In the vicinity of the groundwater observation points, water table depth exists 10 to 15 m below the current river bed (dissected valley bottom), approximately 25 m below the surface.

Environmental geographical conditions which are able to maintain the groundwater environment and use as described above will be shown in the presentation.

Keywords: groundwater use, hydrogeomorphology, environmental geography, Lake Victoria, Kenya