

**How to preserve drinking water reserves in the Lake water shade-Gwasssi hills-Lake Victoria**  
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- **Why Preserve water Sources**
  - A safe drinking water supply is critical to the well-being of the community and preservation is necessary to help avoid, minimize or manage risks to water quality
- **Main Sources of water around Gwasssi hills: Gwasssi hills are located in Suba District of Kenya within the Lake Victoria basin and the rural communities draw water from three major sources;**
  - **Rivers:** There are three main perennial rivers draining into Lake Victoria. These are the Lambwe, Gera and Tigandro rivers which originate from the hills around the Lake Victoria catchment. Discharge from the rivers is seasonal.
  - **Boreholes/Dams:** There are a number of bore holes and dams in the catchment areas. These include Waondo borehole, Rabuor chaanga borehole, Oseno dam, Nyamyuero dam, Kajwang' borehole, Gorogoro dam, Abururu dam.
  - **Ponds:** The area has also a number of small and shallow ponds of which are found in the project area.
- **Potential Water Quality Risks**
  - contaminated through contact with human and animal waste i.e. nutrients and bacteria from ablution facilities and septic tanks (less in boreholes)
  - chemical or fuel spills; pesticides; and pathogen or nutrient contamination from fertilizers, septic tanks and other sources
  - Soil erosion
- **Preservation Strategies**
  - **Land Use Planning:** Establishing appropriate protection mechanisms in statutory land use planning processes to secure the long term protection of water sources (Zoning)
  - adoption of best management practices for land uses is encouraged to help protect water quality
  - Education and awareness (IEC material) is a key mechanism for water quality protection
  - Surveillance and By-law enforcement
  - Undertake research into watershed restoration and health assessment, such as ground and surface water interactions and climate change impacts on water supply and hydrology
  - Erosion control
  - Local people must be informed and trained on the provisions of the Water regulations