

Impacts of Human Settlement Development on Highland View Wetland in Bizana, South Africa

Authors : Fikile Xaki, Zandy Magaiyana

Abstract : The increasing population and urbanization, with the demand for land and development, has had adverse impacts on wetland areas which has resulted in changing the hydrology and water chemistry of wetlands, affecting the water supply and water quality in urban areas like the Highland View, a residential area in Mbizana, South Africa. The settlement development in Highland View has led to wetland degradation due to land uses like agriculture and conversion of wetland for settlement development. Interviews with the local community were conducted to show how settlement development on wetland affects them. The results indicated that the environmental rights of people as according to Section 24 of the South African Constitution are compromised, and sustainable development was not put into consideration during development. With the results from the survey - through questionnaires for the Mbizana Local Municipality and the community, it was clear that the community needs education and capacity building on wetland management and conservation. Geographic Information Systems (GIS) was used to map physical properties of the Highland View wetland and houses built on the wetland. With all the information gathered from the research, it was clear that local municipality, together with hydrologists, needs to develop an environmental management framework to protect the wetlands.

Keywords : sustainable development, wetlands, human settlement, water

Conference Title : ICWEEM 2017 : International Conference on Water, Energy and Environmental Management

Conference Location : Paris, France

Conference Dates : May 18-19, 2017