

**“Impact of Physical Infrastructure Development on Water Turbidity at University of Embu”**

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**Abstract**

It has been globally recognized that human activities and land use developments have had significant impacts on water quality through pollution and sedimentation, with the attendant effects of reducing utility for human consumption. A 6 month study was conducted within the Precincts ‘of the University of Embu, aiming to investigate the impact of physical infrastructural developments at the University of Embu on water quality in dam 2 which was compared with water quality of dame 5. The study was also aiming to exam the current strategies that have been put in place to minimize the negative effect of infrastructure development on water quality and come to up with suggestions on practical approaches of ameliorating the impact of physical 6 infrastructural developments on water sources and water quality. The study was using primary data, which involved collection of water samples from sites near new physical infrastructural developments, comparing this with water quality of dam5 and analyzed them with regards to quality parameters. The study also utilized secondary sources, especially on related research been done by experts on the water resources management field. The method of primary data collection was direct observation, experiment and interviewing people. The data so obtained was analyzed using qualitative methods to obtain best quality results. The knowledge gained was used to come up with appropriate land use management options that will reduce impact on water resources, especially on water quality dynamics at the University of Embu. This will bring sustainable development which will not have negative affect on water quality of water resources we have in University of Embu for economic, social and environmental benefit of these water resources. The study recommended; planting of temporary vegetative cover, construction of sedimentation traps, planting of vegetative strips, constructing parking with permeable materials, paving roads to reduce soil erosion and fencing construction site with wind breakers.