

ABSTRACT

This report has been prepared after assessment of the water quality and flow of Athi river in Area 39 near Crystal Rivers mall and estate. This project fulfilled its objectives after careful tests and analysis of the results. The main objective and backbone of this project was to see the effects of the small concrete dam(wall) and the boulders deposited during the construction of the bridge to divert the river flow how it has affected the water quality of the river and hindered the flow especially during this dry season. During the dry season there is discontinuity of flow specifically under the bridge despite the river being an all-weather river. Before the bridge and after the bridge there is water. Tests had to be done on various parameters that is the physical, chemical and biological parameters to contrast them when the river has a continuous flow especially during the wet season to the dry season where the river has discontinued flow. Samples were collected on both the wet and dry seasons and there were three sampling points that is before the bridge, under the bridge and after the bridge. Tests were carried out in the laboratory and clearly the samples showed very huge differences between the two seasons the dry one having the worst quality and this is mainly attributed to the fact that the river is stagnant hence it does not self-purify. Conclusions were drawn from the results the common one being that the wall left during the construction of the affected the water quality negatively. Recommendations were made the main one being the demolition of the concrete wall and removal of the boulders placed during construction. There should also be measures taken especially during the procurement and contracting process to leave the river as it was before in its natural form.