

**Paper No: PU-SOE- Civil - 01**

**A Survey on Sewage and Bore well Water Quality of Vrishabhavathi River Basin**

**K Venkatesha Raju, M.B. Santhosh, Alok A.Reddy, Shashikumar Patil and Honey Sudilal**  
Department of Civil Engineering, Presidency University, Bengaluru 560064

**Abstract**

The present work aims to study the contamination status of the Vrishabhavathi sewage water and also the deterioration of surrounding groundwater quality. An erstwhile freshwater stream, now carrying huge amounts of industrial, agricultural and domestic effluents from the western part of Bangalore metropolis. There are three sewage water and the same number of groundwater samples of three different locations were collected from the Vrishabhavathi basin during post-monsoon season 2018. All the six samples were analysed for around 16 physico- chemical parameters. Both the categories of samples exhibit slightly alkaline pH with high dissolved solids and turbidity. The high level of chloride, phosphate, BOD, COD concentration in sewage water clearly indicating the extensive influx of water pollutants from both point and non-point sources leading to further deterioration of sewage water. The total hardness, total alkalinity, turbidity and phosphate concentration of borewell samples were exceeding the standard limits of BIS, revealing that the leaching of sewage into groundwater aquifers is at an alarming rate in Vrishabhavathi basin. The dissolved solids concentration and alkaline state of the borewell water may become unfit for irrigation in Vrishabhavathi river stretch, since it may lead agricultural soil to be saline and toxic over a period of time.

**Keywords:**

Physico-chemical, Vrishabhavathi, Sewage, Borewell, Concentration

**Publication Details:**

<b>Journal Name</b>	<b>Vol.</b>	<b>Month &amp; Year</b>	<b>Page No.</b>	<b>Publisher</b>	<b>Scimago Ranking</b>
Indian. J Environmental Protection	40 (7)	July, 2020	769-774	Kalpana Corporation	Q4