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ORIGINAL ARTICLE

ASSESSMENT OF WATER QUALITY OF BHAGIRATHI RIVER AT LOWER GANGETIC PLAIN OF BERHAMPORE, WEST BENGAL, INDIA

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ABSTRACT

Bhagirathi River is one of the major fluvial water sources in Berhampore, Murshidabad, West Bengal, India. Due to increasing population and the untreated discharge released into the water body through different anthropogenic activities makes it polluted day by day. This changes the physico-chemical parameters of the water and makes it unhealthy for human use. Due to growing pollution in the Bhagirathi River of Berhampore, there is a change in the water quality which has been observed by analyzing the various physico-chemical parameters like Dissolved oxygen, Chemical Oxygen Demand, Alkalinity, Chlorinity, Salinity, pH, free carbon dioxide, Total Dissolved Solids and Conductivity. When the water sample of Bhagirathi River was compared with the Municipality water sample of Berhampore, a difference among these parameters were observed. Berhampore Municipality uses the Bhagirathi River water, treats them to reduce the amount of pollution and supply for the domestic and commercial uses. Observing the various aforementioned parameters tested from these two-water samples showed that the Bhagirathi River water is much more polluted and is not potable instead harmful for living organisms. On the contrary, water sample of Berhampore Municipality which is actually treated, purified and then supplied as drinking water have normal potable physico-chemical characters.

Key words: Bhagirathi River, anthropogenic activities, water pollution, physico-chemical parameters, potable.