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Water quality index evaluation for major rivers in Gujarat

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Abstract: Water quality index (WQI) is used for representing the overall water quality in the form of a number to qualify its use for domestic, irrigation, industry or any other intended use. The present study involves determination of WQI using various physicochemical characteristics like pH, electrical conductivity, DO, BOD, nitrate nitrogen and total coliform for surface water samples for rivers Mahi, Sabarmati, Narmada and Tapi in Gujarat for the year 2016. The WQI for river Mahi was found between 30 and 50, for river Sabarmati between 42 and 65, for River Narmada between 28 and 52 and for river Tapi between 35 and 70. Based on WQI, it can be inferred that most of the surface water samples are in the category of good to poor. The quality of river water was good on upstream as compared with downstream. It can be inferred that the chief reason for decline in the quality of river water was discharge of sewage, industrial effluent and urban runoff.

Key words: Dissolved oxygen Biochemical oxygen demand Water quality index

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