

Krishna River water quality during lockdown of 2020 define as benchmark for future pollution controls.

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The Sangli city is located at southern part of Maharashtra state in India. The biggest city of Sangli district is situated at left bank of river Krishna. River water is becoming a helpful for the growth of city population, industrialization and agriculture around the city. The haphazard growth in population and industrialization generate huge amount of waste and pollutant which discharge into the river Krishna. Many cities of the world become a major point source of pollutants though there is government act of pollution of controls. The population of Sangli-Miraj-Kupwad municipal corporation is more than 5.3 lakhs in 2020. Nearly 55 MLD of water is consumed by the people of Sangli from the Krishna River. Approximately 48 MLD of waste water is generated from Sangli City. The study shows that in summer the rate of river water flow is low while the flow of sewage from the nallas in to the river is more which almost results into a sewage drain. It is very crucial task to control the pollution and maintain river water quality. Many researcher studies and access the quality of river water various parameter such as Colour, Odor, T S, TDS, TSS, DO, COD, BOD, PH, Total Hardness, Available Nitrate, Phosphate's, Chlorides, Turbidity, Ca, Mg with standard methods. It also focuses on the characteristics of waste water and impact of pollutant water on human health of Sangli district and suggest there is confirms the need of immediate action plan to keep check on the pollution and for maintaining the better water quality of the river Krishna. The measures of reducing cases of coronavirus infections the government of India declare the lockdown for the period of 24th March to 17th May 9, 2020. In this period all the industries closed for maintain the social distancing. Taking advantage of ideal condition of lockdown situation, the present study has following objectives.

- i) To access the quality of river water various parameter such as Colour, Odor, T S, TDS, TSS, DO, COD, BOD, PH, Total Hardness, Available Nitrate, Phosphate's, Chlorides, Turbidity, Ca, Mg with standard methods after the lockdown of 2020 at the confluence of *Sheri nala* and river Krishna.
- ii) To access water quality of river of during the rainy season 2020.
- iii) To compare the level of pollution and define as benchmark for future pollution controls.

Methodology

The area velocity method was used for river flow measurement. The cup type current meter (as per IS: 39101966) was used for this purpose. The waste water flow was measured using "V"- notch. The Central Pollution Control Board, has published the guidelines in 2007 for the selection of monitoring locations, collection of water samples and to decide sampling frequency of surface water. These guidelines were adopted as far as possible for the present work. River water samples were collected from the monitoring locations at a depth of 30 cm from the water surface for physico – chemical analysis. The river water and waste water samples will collect for a period of May 2020 - July 2020. The frequency of sample collection was decided once in the month. Additional water and waste water samples were also taken to study effect of occasional changes in flow conditions. American Public Health Association guidelines were adopted for the analysis of the water and waste water samples. The physico-chemical analysis performed by standard methods. The brief details of analytical methods and equipment used in the study.