ANALYSIS OF WATER QUALITY OF CODE RIVER IN YOGYAKARTA CITY USING POLLUTION INDEX METHOD

By: Husna Fatikha Krisnadi
Supervised by: Didi Saidi

ABSTRACT

The Code River is one of the rivers surrounded by densely populated areas in Yogyakarta City. The population density in Yogyakarta City reaches 11,650 people/km2 which can affect river water quality through the disposal of household waste and garbage. This study aims to determine the water quality of Code River based on physical, chemical, biological parameters, and determine the water quality status of Code River using the Pollution Index method. This research method uses a survey method, the sampling technique is done by purposive sampling method, and the method to determine the level of river pollution using the Pollution Index method. Sampling was carried out in the middle of the Code River flow, 7 samples were taken which represented densely populated areas. Water quality measurements consist of Temperature, Total Suspended Solid (TSS), Ammonia, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), pH, Total Phosphate, and Total Coliform parameters. The results showed that the water quality of Code River in Yogyakarta City in the parameters of Temperature, TSS, pH, Ammonia is in accordance with the established quality standards, while the parameters of BOD, COD, Total Phosphate and total coliform exceed the established quality standards. The water quality status of the Code River in Yogyakarta City based on the Pollutant Index (IP) method shows lightly polluted to moderately polluted.

Keywords: *Pollutionindex, Water quality, river code*