

DETERMINATION THE WATER QUALITY STATUS OF RAWA JOMBOR USING THE STORET METHOD FOR AGRICULTURAL LAND IRRIGATION IN BAYAT DISTRICT, KLATEN REGENCY

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ABSTRACT

Rawa Jombor has functioned as a water reservoir for irrigation of agricultural land in Bayat District, Klaten Regency. The large number of activities in water that are not in accordance can cause an increase in water pollution and a decrease in water quality. This research aims to determine the water quality and level of water pollution in Rawa Jombor which is used for irrigation of agricultural land in Bayat District. This research was carried out using a field survey method to determine the location and a purposive method to determine water sampling points. Water samples were taken at the location where the water exits (outlet), where the water enters (inlet), the floating cage area, the area of the former floating restaurant, and the open area using the grab (momentary) method. Water quality analysis was carried out by comparing the results of laboratory analysis to class IV quality standards PP No. 82 of 2001 while determining water quality status using the STORET method to determine the pollution level in Rawa Jombor. The parameters examined in this research are temperature, pH, TDS, DO, BOD, COD, SAR, DHL, Nitrate, and Total Phosphate. The results of the research show that the water quality of Rawa Jombor at Inlet 1, inlet 2, and outlet 2 is good, inlet 3 has quite good water quality, as well as outlet 1, the floating cage area, the former floating food stall area, and the open area. has poor water quality. In general, Rawa Jombor water can be used for agricultural irrigation, but you need to be careful about the pH parameters and total phosphate at the outlet as the location where the water comes out for irrigation. Based on the calculation of the water status quality, it can be seen that the Rawa Jombor has functioned as a water reservoir for irrigation of agricultural land in Bayat District, Klaten Regency. Rawa Jombor is class C, moderately polluted with a value of -22.

Keywords: Grab Sampling, Irrigation, Water Quality, STORET Method, Pollution Level