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ABSTRACT

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Description of PDAM Reservoir Water Quality Using Physical, Chemical And Microbiological Parameters (Case Study at PDAM Tirta Sukapura Kabupaten Tasikmalaya)

The utilization of water to fulfill daily needs cannot be done directly, but requires a treatment process first so that it has quality according to the quality standards for clean water and drinking water that have been determined by the Republic of Indonesia Minister of Health Regulation Number 2 of 2023.The purpose of the research was to determine the description of the reservoir water quality of PDAM Tirta Sukapura Tasikmalaya Regency using physical, chemical and microbiological parameters. The method used in this research was to compare laboratory test results with the quality standards of Minister of Health Regulation Number 2 of 2023. Testing was carried out twice. Physical parameter test results: temperature 26 ⁰ C and 26.7 ⁰ C, TDS value, turbidity, odor and color have the same value in two tests, namely TDS 102 mg/l, turbidity 0, color 0 TCU and no odor, Chemical parameter test results: pH 6.0 and 6.5, Nitrate (NO^3) 0.6 mg/l and 0.5 mg/l, Nitrite (NO^2) 0.004 mg/l and 0.008 mg/l, Iron (Fe) 0.03 mg/l and 0.01 mg/l, Manganese (Mn) 0.000 mg/l and 0.005 mg/l, Fluoride 001 mg/l and 0.24 mg/l. The first and second tests which had the same results were Chromium (Cr) 0.005 mg/l, Cadmium (Cd) 0.001 mg/l and Aluminum (Al) 0 mg/l. Microbiological parameter test results: Coliform Total 96 CFU/100 ml and 15 CFU/100 ml, E.coli 96 CFU/100 ml and 0 CFU/100 ml. The conclusion is that the reservoir water does not meet the quality standards of Minister of Health Number 2 of 2023 for pH content, Total Coliform and E.coli, therefore the reservoir water cannot be consumed directly but must be treated first.

Keywords: *Quality, Water, Reservoir, Parameters, Minister of Health Regulation*