

EVALUASI KUALITAS AIR TANAH MENGGUNAKAN METODE *WEIGHTED ARITHMETIC WATER QUALITY INDEX* (WAWQI) DI SEKOLAH DASAR KAPANEWON PRAMBANAN KABUPATEN SLEMAN

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INTISARI

Air merupakan komponen penting makhluk hidup. Anak-anak merupakan kelompok rentan terpapar pencemaran air. Sekolah Dasar (SD) di Kapanewon Prambanan, Kabupaten Sleman telah mengalami keluhan terkait kualitas air. Oleh karena itu, penelitian ini bertujuan untuk mengetahui kualitas air di sekolah dasar Kapanewon Prambanan yang dibandingkan dengan baku mutu menurut PERMENKES Nomor 2 Tahun 2023 dan melakukan perhitungan indeks kualitas air menggunakan metode *Weighted Arithmetic Water Quality Index* (WAWQI). Pengambilan sampel dilakukan pada 12 dari 29 sekolah dasar dengan metode *grab* sampling. Pengukuran kualitas air dilakukan secara langsung di lapangan untuk parameter pH dan melakukan pengujian di laboratorium untuk parameter *Total Dissolved Solid* (TDS), kekeruhan, nitrat, besi, kesadahan, dan E.Coli. Berdasarkan perbandingan hasil pengukuran dengan baku mutu PERMNEKES Nomor 2 Tahun 2023, terdapat empat titik sampel yang melebihi baku mutu pada parameter kekeruhan, dua titik pada parameter TDS, tiga titik sampel pada parameter nitrat, dan sepuluh pada parameter E.Coli. Berdasarkan perhitungan WAWQI, dapat diketahui bahwa kualitas air di sekolah dasar Kapanewon Prambanan terbagi dalam dua kelas, yaitu sangat baik dan tidak sesuai untuk kebutuhan konsumsi. Nilai WAWQI berkisar antara 7,51 hingga 3105,82.

**Kata Kunci:** Air tanah, Indeks Kualitas Air, Kualitas Air, Sekolah Dasar

GROUNDWATER QUALITY EVALUATION USING THE WEIGHTED  
ARITHMETIC WATER QUALITY INDEX (WAWQI) METHOD AT KAPANEWON  
ELEMENTARY SCHOOL IN PRAMBANAN, SLEMAN DISTRICT

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**ABSTRACT**

Water is an essential component of living things. Children are a vulnerable group exposed to water pollution. Elementary schools in Kapanewon Prambanan, Sleman Regency have experienced complaints related to water quality. Therefore, this study aims to determine the quality of water in Kapanewon Prambanan elementary schools compared to the quality standards according to PERMENKES Number 2 of 2023 and calculate the water quality index using the Weighted Arithmetic Water Quality Index (WAWQI) method. Sampling was conducted at 12 out of 29 elementary schools using the grab sampling method. Water quality measurements were conducted directly in the field for pH parameters and conducted laboratory testing for Total Dissolved Solid (TDS), turbidity, nitrate, iron, hardness, and E.Coli parameters. Based on the comparison of the measurement results with the quality standards of PERMNEKES Number 2 of 2023, there are four sample points that exceed the quality standards in the turbidity parameter, two points in the TDS parameter, three sample points in the nitrate parameter, and ten in the E.Coli parameter. Based on the WAWQI calculation, it can be seen that the water quality in Kapanewon Prambanan elementary school is divided into two classes, namely very good and not suitable for consumption needs. WAWQI values range from 7.51 to 3105.82.

**Keywords:** Elementary School, Groundwater, Water Quality, Water Quality Index