

ABSTRAK

**STATUS MUTU PERAIRAN WADUK WAY RAREM, KABUPATEN
LAMPUNG UTARA**

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Waduk Way Rarem di Kabupaten Lampung Utara berperan penting sebagai sumber irigasi, pengendali banjir, dan lokasi budi daya ikan dalam keramba jaring apung (KJA). Namun, aktivitas KJA dan masuknya limbah domestik berpotensi menurunkan kualitas air, sehingga diperlukan evaluasi kondisi perairan secara menyeluruh. Penelitian ini bertujuan untuk menilai kualitas air dan status mutu perairan Waduk Way Rarem menggunakan metode indeks pencemaran (IP) dan *trophic state index* (TSI). Pengambilan sampel dilakukan pada Mei 2025 di 10 stasiun pada dua kedalaman (0,25 m dan 5 m). Parameter yang dianalisis meliputi suhu, kecerahan, pH, DO, *dissolved inorganic nitrogen* (DIN), amonia, nitrit, nitrat, fosfat, rasio N/P, dan klorofil-a. Hasil menunjukkan bahwa suhu, pH, DO, dan nitrat masih memenuhi baku mutu kelas III PP No. 22 Tahun 2021, sedangkan total amonia nitrogen (TAN) melebihi baku mutu pada beberapa titik, terutama di area dekat KJA dan permukiman. Berdasarkan indeks pencemaran, perairan tergolong cemar ringan hingga cemar sedang. Nilai TSI rata-rata 13,25 mengindikasikan status ultraoligotrofik. Penelitian ini mengindikasikan bahwa meskipun perairan mengalami pencemaran ringan, tingkat produktivitas biologis dan ketersediaan unsur hara di Waduk Way Rarem masih sangat rendah.

Kata Kunci: Kualitas Air, Pencemaran, Status Mutu Air, Waduk

ABSTRACT

THE WATER QUALITY STATUS OF WAY RAREM RESERVOIR, NORTH LAMPUNG REGENCY

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The Way Rarem Reservoir in North Lampung Regency plays a vital role as a source of irrigation, flood control, and fish farming site in floating cages net (KJA). However, KJA activities and the influx of domestic waste have the potential to degrade water quality, necessitating a comprehensive evaluation of water conditions. This study aimed to assess the water quality and water quality status of the Way Rarem Reservoir using the pollution index (IP) and trophic state index (TSI) methods. Sampling was conducted in May 2025 at 10 stations at two depths (0.25 m and 5 m). Parameters analyzed included temperature, clarity, pH, DO, DIN, ammonia, nitrite, nitrate, phosphate, N/P ratio, and chlorophyll-a. The results showed that temperature, pH, DO, and nitrate still met the Class III quality standards stipulated in Government Regulation No. 22 of 2021, while TAN, ammonia, exceeded the quality standards at several points, particularly in areas near KJA and residential areas. Based on the IP, the waters were classified as slightly to moderately polluted, with worse conditions at surface depths. The average TSI value of 13,25 indicated ultraoligotrophic status. This study indicates that even though the waters are slightly polluted, the level of biological productivity and nutrient availability in Way Rarem Reservoir is still very low.

Keywords: Pollution, Reservoir, Water Quality, Water Quality Status