

ABSTRAK

PENENTUAN INDEKS KUALITAS AIR (IKA) PADA ANAK SUNGAI WAY KANDIS BANDAR LAMPUNG

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Kualitas air sungai merupakan indikator penting dalam menjaga keseimbangan ekosistem perairan serta kesehatan masyarakat. Anak Sungai Way Kandis di Kota Bandar Lampung berpotensi mengalami penurunan kualitas akibat aktivitas masyarakat, pembuangan limbah, dan peningkatan kepadatan penduduk. Penelitian ini bertujuan untuk menentukan kualitas air anak Sungai Way Kandis berdasarkan parameter fisika, kimia, dan biologi, serta menentukan status mutu air menggunakan metode Indeks Kualitas Air (IKA). Penelitian ini dilakukan pada bulan Oktober-November 2025 dengan pengambilan sampel di tiga stasiun pengamatan, di mana setiap stasiun dilakukan tiga kali pengulangan dengan jeda waktu satu hari. Parameter yang diuji meliputi pengukuran secara *in situ* (suhu dan pH) dan *ex situ* di laboratorium (BOD, COD, TSS, nitrat, fosfat, dan total *colyform*). Hasil analisis menunjukkan sebagian besar parameter melebihi ambang baku mutu sesuai dengan Peraturan Pemerintah Nomor 22 Tahun 2021 tentang Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup. Berdasarkan analisis Indeks Pencemaran (IP) pada setiap stasiun tergolong pada kategori tercemar sedang. Hasil analisis Indeks Kualitas Air (IKA) pada anak Sungai Way Kandis Bandar Lampung tergolong buruk dengan nilai IKA = 30 untuk peruntukan kelas II.

Kata Kunci : Indeks Kualitas Air (IKA), Sungai, Indeks Pencemaran (IP), Way Kandis

ABSTRACT

DETERMINATION OF WATER QUALITY INDEX (IKA) IN THE WAY KANDIS RIVER TRIBUTARY, BANDAR LAMPUNG

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River water quality is an important indicator in maintaining the balance of aquatic ecosystems and public health. The Way Kandis River tributary in Bandar Lampung City has the potential to experience quality decline due to community activities, waste disposal, and increasing population density. This study aims to determine the water quality of the Way Kandis River tributary based on physical, chemical, and biological parameters, and to determine the water quality status using the Water Quality Index (IKA) method. This study was conducted from October to November 2025 with sampling at three observation stations, with each station being repeated three times with a one-day interval. The parameters tested included in situ measurements (temperature and pH) and ex situ laboratory measurements (BOD, COD, TSS, nitrate, phosphate, and total coliform). The analysis results showed that most parameters exceeded the quality standard threshold in accordance with Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management. Based on the Pollution Index (IP) analysis at each station, it was categorized as moderately polluted. The results of the Water Quality Index (IKA) analysis for the Way Kandis River tributary in Bandar Lampung were classified as poor with an IKA value of 30 for class II designation.

Keywords: Water Quality Index (IKA), River, Pollution Index (IP), Way Kandis