

ABSTRAK

PENENTUAN STATUS MUTU AIR SUNGAI WAY KUALA, KOTA BANDAR LAMPUNG

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Sungai Way Kuala merupakan salah satu sungai yang berada di daerah perkotaan dan dimanfaatkan berbagai aktivitas disekitarnya. Limbah hasil dari aktivitas masyarakat sekitar yang dibuang secara langsung ke sungai akan menyebabkan penurunan kualitas air sungai. Penurunan kualitas air dapat ditunjukkan dengan adanya perubahan terhadap parameter fisika, kimia, dan biologinya. Tujuan dari penelitian ini yaitu menganalisis kondisi kualitas air dan menentukan status mutu air Sungai Way Kuala, Kota Bandar Lampung. Penelitian ini dilaksanakan pada bulan November 2024-Januari 2025 di Sungai Way Kuala, Kota Bandar Lampung. Pengambilan sampel dilakukan pada 3 stasiun di sepanjang aliran Sungai Way Kuala dengan menggunakan metode survei secara langsung. Parameter suhu, pH, DO, dan arus diukur secara langsung di lapangan, sedangkan parameter TSS, BOD, COD, amonia, MBAS, logam berat Cd dan *fecal coliform* dianalisis di laboratorium. Penentuan status mutu air sungai menggunakan metode STORET, indeks pencemaran (IP), dan *canadian council of ministers of the environment* (CCME WQI). Hasil penelitian menunjukkan dinamika kualitas air Sungai Way Kuala parameter fisika, kimia, dan biologi yang signifikan. Status mutu air Sungai Way Kuala dengan STORET cenderung cemar berat. Status mutu air Sungai Way Kuala dengan IP cenderung cemar ringan. Status mutu air Sungai Way Kuala dengan CCME WQI cenderung kurang. Secara keseluruhan, kondisi kualitas air menunjukkan sebagian besar parameter sudah tidak sesuai baku mutu air sungai dan status mutu air sungai pada seluruh stasiun masuk ke dalam kategori tercemar.

Kata Kunci: CCME WQI, Indeks Pencemaran, Sungai Way Kuala, Status Mutu Air, STORET

ABSTRACT

DETERMINATION OF WATER QUALITY STATUS OF WAY KUALA RIVER, BANDAR LAMPUNG CITY

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Way Kuala River is one of the rivers located in urban areas and utilized by various activities around it. Waste from the activities of the surrounding community that is discharged directly into the river will cause a decrease in river water quality. A decrease in water quality can be indicated by changes in physical, chemical, and biological parameters. The purpose of this research was to analyze water quality conditions and determine the water quality status of Way Kuala River, Bandar Lampung City. This research was conducted in November 2024-January 2025 in Way Kuala River, Bandar Lampung City. Sampling was conducted at 3 stations along the Way Kuala River using a direct survey method. Temperature, pH, DO, and current parameters were measured directly in the field, while TSS, BOD, COD, ammonia, MBAS, heavy metal Cd and fecal coliform were analyzed in the laboratory. Determination of river water quality status using STORET method, pollution index (IP), and Canadian Council of Ministers of the Environment (CCME WQI). The results of the study show significant dynamics in the physical, chemical, and biological parameters of the Way Kuala River water quality. The water quality status of the Way Kuala River using STORET tends to be heavily polluted. The water quality status of the Way Kuala River using IP tends to be lightly polluted. The water quality status of the Way Kuala River using CCME WQI tends to be poor. Overall, the water quality conditions indicate that most parameters no longer meet river water quality standards, and the water quality status of the river at all stations falls into the polluted category.

Kata Kunci: *CCME WQI, Pollution Index, STORET, Water Quality Status, Way Kuala River*