

ABSTRAK

ANALISIS KUALITAS AIR SUNGAI LILI DI KELURAHAN CAMPLONG I KABUPATEN KUPANG

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Sungai Lili yang berada di Kelurahan Camplong I, Kabupaten Kupang dimanfaatkan oleh masyarakat sekitar untuk berbagai kebutuhan sehari-hari seperti minum, memasak, mandi, mencuci, irigasi, dan memberi minum ternak. Namun berbagai aktivitas disekitar daerah aliran sungai seperti pembuangan limbah rumah tangga, limbah pembuatan sopi, dan keberadaan ternak di pinggir sungai berpotensi menurunkan kualitas air. Penelitian ini bertujuan untuk menganalisis kualitas Air Sungai Lili berdasarkan parameter fisik, kimia, dan biologi serta menentukan status mutu air berdasarkan Peraturan Pemerintah Nomor 22 Tahun 2021. Penelitian ini menggunakan metode deskriptif kuantitatif dengan teknik *purposive sampling* pada tiga titik pengamatan yang mewakili bagian hulu, pertengahan, dan hilir sungai. Parameter yang dianalisis meliputi suhu, bau, warna, *Total Dissolved Solids* (TDS), pH, *Biological Oxygen Demand* (BOD), nitrit, dan *total coliform*. Data dibandingkan dengan baku mutu air dan dianalisis menggunakan metode Indeks Pencemaran (IP). Hasil penelitian menunjukkan bahwa suhu, bau, warna, TDS, pH, nitrit, dan *total coliform* masih memenuhi baku mutu kelas I dan kelas II, sedangkan parameter BOD pada ketiga titik melebihi baku mutu kelas I dan kelas II. Nilai IP kelas I berturut-turut sebesar 1,34; 2,05; dan 1,18 yang termasuk kategori tercemar ringan. Pada kelas II, nilai IP sebesar 0,93; 1,39; dan 0,82 sehingga Titik 1 dan Titik 3 memenuhi baku mutu, sedangkan Titik 2 termasuk tercemar ringan. Dengan demikian, kualitas air Sungai Lili belum memenuhi baku mutu kelas I dan kelas II sehingga pemanfaatannya perlu disertai upaya pengendalian sumber pencemaran.

Kata kunci: Kualitas air, Sungai Lili, Baku mutu air.

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ABSTRACT

ANALYSIS OF WATER QUALITY IN THE LILI RIVER IN CAMPLONG I VILLAGE, KUPANG REGENCY.

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The Lili River, located in Camplong I Village, Kupang Regency, is used by the local community for various daily needs such as drinking, cooking, bathing, washing, irrigation, and watering livestock. However, various activities around the river basin-such as the disposal of household waste, waste from sopi production, and the presence of livestock along the riverbanks-have the potential to degrade water quality. This study aims to analyze the water quality of the Lili River based on physical, chemical, and biological parameters and to determine its water quality status in accordance with Government Regulation No. 22 of 2021. This study employs a quantitative descriptive method using purposive sampling at three observation points representing the upstream, middle, and downstream sections of the river. The parameters analyzed included temperature, odor, color, Total Dissolved Solids (TDS), pH, Biological Oxygen Demand (BOD), nitrite, and total coliforms. The data were compared with water quality standards and analyzed using the Pollution Index (PI) method. The results of the study showed that temperature, odor, color, TDS, pH, nitrite, and total coliforms still met Class I and Class II quality standards, while the BOD parameter at all three sampling points exceeded Class I and Class II quality standards. The Class I PI values were 1.34, 2.05, and 1.18, respectively, which fall into the “slightly polluted” category. For Class II, the PI values were 0.93, 1.39, and 0.82, meaning that Point 1 and Point 3 met the quality standards, while Point 2 was classified as slightly polluted. Thus, the water quality of the Lili River does not yet meet Class I and Class II quality standards, so its use must be accompanied by efforts to control sources of pollution.

Keywords : Water quality, Lili River, Water quality standards

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