

Intisari

ANALISIS TINGKAT PENCEMARAN AIR SUNGAI RANGKUI KOTA PANGKALPINANG BERDASARKAN STATUS MUTU AIR

Sungai Rangkui merupakan sungai yang melintasi Kecamatan Tamansari dan Kecamatan Rangkui yang berada di Kota Pangkalpinang. Sungai Rangkui memiliki peran yang penting bagi kegiatan yang ada di pusat Pangkalpinang khususnya bagi transportasi dan perekonomian. Penelitian ini bertujuan untuk mengetahui tingkat pencemaran air di Sungai Rangkui berdasarkan status mutu air yang melintasi kawasan permukiman dan industri. Penelitian dilaksanakan pada bulan Januari-Februari 2023 di Sungai Rangkui, Kepulauan Bangka Belitung. Pengambilan data dilakukan sebanyak 3 kali pada 4 titik stasiun pengamatan. Data kualitas air yang diambil terdiri dari parameter fisika, kimia, dan biologi. Parameter fisika yang diambil meliputi suhu air, *Total Suspended Solid* (TSS), bau, dan warna. Parameter kimia yang diambil meliputi pH, *Dissolved Oxygen* (DO), *Biological Oxygen Demand* (BOD), *Chemical Oxygen Demand* (COD), amonia, fosfat, dan nitrat. Parameter biologi yang diambil meliputi *fecal coliform*. Data kualitas air yang didapatkan antara lain suhu air 29,7-31,7°C; TSS 2,3-11 mg/L; pH 6,5-7,8; DO 3,2-4,1 mg/L; BOD 2,9-6,3 mg/L; COD 17,5-42,5 mg/L; amonia 0,2-0,4 mg/L; fosfat 0,05-0,2 mg/L; nitrat 36,7-53,3 mg/L; *fecal coliform* 210,9-553,3 MPN/100 mL. Penilaian status mutu air dengan menggunakan metode STORET memiliki skor berkisar antara (-64) – (-120) yang dikategorikan dalam kelas D, yaitu cemar berat dengan parameter yang paling mempengaruhi adalah amonia.

Kata kunci: kualitas air, metode STORET, parameter.

Abstract

ANALYSIS OF WATER POLLUTION LEVEL OF RANGKUI RIVER, PANGKALPINANG CITY BASED ON WATER QUALITY STATUS

Rangkui River is a river that crosses Tamansari District and Rangkui District, which are in Pangkalpinang City. The Rangkui River is vital in activities in the center of Pangkalpinang, especially for transportation and the economy. This study aims to determine the level of water pollution in the Rangkui River based on the quality status of the water that crosses residential and industrial areas. This research was conducted in January-February 2023 in the Rangkui River, Bangka Belitung Islands. Data collection was carried out three times at 4 stations. Water quality data collected consists of physical, chemical, and biological parameters. The physical parameters included water temperature, *Total Suspended Solid* (TSS), odor, and color. The chemical parameters included pH, *Dissolved Oxygen* (DO), *Biological Oxygen Demand* (BOD), *Chemical Oxygen Demand* (COD), ammonia, phosphate, and nitrate. Biological parameters taken include *fecal coliform*. The water quality data obtained were water temperature 29,7-31,7°C; TSS 2,3-11 mg/L; pH 6,5-7,8; DO 3,2-4,1 mg/L; BOD 2,9-6,3 mg/L; COD 17,5-42,5 mg/L; ammonia 0,2-0,4 mg/L; phosphate 0,05-0,2 mg/L; nitrate 36,7-53,3 mg/L; fecal coliform 210,9-553,3 MPN/100 mL. Assessment of water quality status using the STORET method has a score ranging from (-64) – (-120), which one categorized in class D, which is heavily polluted, with the most influencing parameters being ammonia.

Keywords: parameters, STORET method, water quality.