

Intisari

STATUS MUTU AIR SUNGAI BEDOG YOGYAKARTA BERDASARKAN INDEKS PENCEMARAN

Sungai Bedog Yogyakarta sering dimanfaatkan untuk kegiatan rumah tangga, industri, irigasi pertanian, peternakan dan MCK (mandi cuci kakus). Perubahan fungsi dan penggunaan lahan di sepanjang sempadan mengakibatkan penurunan kualitas air di Sungai Bedog. Penelitian ini bertujuan untuk mengetahui status mutu air Sungai Bedog Yogyakarta dilihat dari nilai indeks pencemarannya. Penelitian dilakukan di sepanjang aliran Sungai Bedog di Kabupaten Sleman dan Kabupaten Bantul yang terbagi menjadi enam stasiun pada bulan September-Oktober 2020. Parameter yang diamati dalam penelitian ini adalah suhu air, total padatan tersuspensi (TSS), total padatan terlarut (TDS), oksigen terlarut (DO), *biological oxygen demand* (BOD), pH, dan ammonia (NH_3). Hasil penelitian menunjukkan bahwa suhu air di stasiun pengamatan berkisar antara 27,7-28,6°C, TSS berkisar 282,08-290,42 mg/L, TDS berkisar 187,38-313,63 mg/L, DO berkisar 4,02-6,61 mg/L, BOD₅ berkisar 2,76-4,29 mg/L, pH berkisar 6,29-6,62, dan ammonia berkisar 0,0002125-0,000225 mg/L. Perhitungan nilai indeks pencemaran dilakukan dengan memasukkan hasil pengamatan parameter kualitas air ke persamaan indeks pencemaran menurut Keputusan Menteri Lingkungan Hidup No. 115 Tahun 2003. Hasil penelitian menunjukkan bahwa nilai indeks pencemaran di Sungai Bedog berkisar 3,472-3,554 sehingga status mutu air di Sungai Bedog berada dalam kategori tercemar ringan.

Kata kunci: baku mutu air, indeks pencemaran, kualitas air, Sungai Bedog

Abstract

WATER QUALITY STATUS OF BEDOG RIVER YOGYAKARTA BASED ON THE POLLUTION INDEX

Bedog River, Yogyakarta is often used for household, industrial, agricultural irrigation, farm, and bathing and washing latrines activities. Changes in land use and fuction along the border have resulted in decreased the water quality in Bedog River. This study aims to determine the status of the water quality of Bedog River, Yogyakarta in terms of its pollution index value. The research was carried out in Sleman Regency and Bantul Regency which was divided into six stations from September to October 2020. The parameters observed in this study were water temperature, total suspended solids (TSS), total dissolved solids (TDS), dissolved oxygen (DO), biological oxygen demand (BOD), pH, and ammonia (NH₃). The results showed that the water temperature at the observation station ranged from 27.7-28.6°C, TSS ranged from 282.08-290. 42 mg/L, TDS ranged from 187.38-313.63, DO ranged from 4.02-6.61 mg/L, BOD₅ ranged from 4.02-6.61 mg/L, BOD₅ ranged from 2.76-4.29 mg/L, pH ranged from 6.29-6.62, and ammonia ranged from 0.0002125-0.000225 mg/L. The pollution index value is calculated by entering the results of observations of the water quality parameters into the pollution index equation in accordance with the Decree of the Minister of Environment No. 115 of 2003. The results showed that the pollution index value of Bedog River ranged from 3.472-3.554, these results indicate that Bedog River is in lightly polluted status.

Keywords: pollution index, Bedog River, water quality, water quality standards