

## Intisari

### KUALITAS AIR MUARA SUNGAI KARANGGENENG DI KABUPATEN REMBANG PADA PERIODE BULAN AGUSTUS SAMPAI DESEMBER 2020

Sungai Karanggeneng adalah sungai yang terletak di Kabupaten Rembang Provinsi Jawa Tengah yang mempunyai manfaat secara ekologi, ekonomi, dan sosial bagi masyarakat sekitar. Berbagai kegiatan masyarakat disekitar sungai diduga dapat mempengaruhi kualitas airnya. Penelitian ini adalah penelitian pertama yang menginvestigasi kualitas air permukaan Sungai Karanggeneng dari bulan Agustus sampai Desember 2020. Pengambilan dan pengukuran sampel air dilakukan setiap bulan di tiga stasiun yang terletak di muara Sungai Karanggeneng. Suhu, pH, oksigen terlarut ( $O_2$  terlarut), dan salinitas permukaan air Sungai Karanggeneng diukur menggunakan *water quality checker* (AZ 86031), sedangkan konsentrasi Pb dianalisis menggunakan metode spektrofotometri serapan atom. Hasil penelitian menunjukkan, berdasarkan baku mutu Kementerian Lingkungan Hidup No.51 tahun 2004, kualitas air permukaan Sungai Karanggeneng termasuk dalam kategori baik dengan kisaran salinitas 0,25-3,44 ppt, konsentrasi oksigen terlarut 4,7-10,9  $mgL^{-1}$ , pH 7,23-8,11, suhu 26,7-31,7  $^{\circ}C$ , dan konsentrasi Pb  $< 0,0547 mgL^{-1}$ .

Kata kunci: oksigen terlarut, pH, suhu, Sungai Karanggeneng, timbal (Pb)

## Abstract

### WATER QUALITY OF THE KARANGGENENG RIVER MOUTH IN REMBANG DISTRICT DURING AUGUST-DECEMBER 2020

The Karanggeneng River is located in the Rembang Regency, Central Java Province which has ecological, economic, and social benefits for the surrounding community. The use of this river for economic activities is thought to affect its water quality. This research is the first study to investigate the surface water quality of the Karanggeneng River from August to December 2020. The water samples were taken and measured every month at three stations located at the mouth of the Karanggeneng River. Surface temperature, pH, dissolved oxygen (DO), and salinity of the Karanggeneng River were measured using a water quality checker (AZ 86031), while the Pb concentration was analyzed using atomic absorption spectroscopy method. The results showed, based on the quality standard of Ministry of Environment of the Republic of Indonesia No.51 tahun 2004, the surface water quality of the Karanggeneng River mouth was categorized good with salinity range of 0,25-3,44 ppt, DO concentration of 4,7-10,9 mgL<sup>-1</sup>, pH of 7,2-8,1, temperature range of 26,7-31,7°C, and Pb concentration < 0,0547 mgL<sup>-1</sup>.

Keywords: dissolved oxygen, Karanggeneng River, lead (Pb), pH, temperature