

KAJIAN STATUS TROFIK SEBAGAI UPAYA PENGELOLAAN KUALITAS PERAIRAN DI TELAGA CEBONG KABUPATEN WONOSOBO JAWA TENGAH

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Eutrofikasi merupakan pengkayaan unsur hara di perairan, khususnya nitrogen dan fosfat yang mengakibatkan penurunan kualitas air. Status trofik dikategorikan menjadi oligotrofik, mesotrofik, eutrofik, dan hipertrofik. Area DTA Telaga Cebong didominasi dengan lahan pertanian kentang seluas 156,96 Ha setara 65% dari luas total DTA, sehingga pertanian penyumbang unsur hara terbesar yang berasal dari pupuk. Penelitian ini bertujuan untuk mengkaji kualitas air dan status trofik, aktivitas petani Desa Sembungan, dan strategi pengelolaan perairan Telaga Cebong. Pencuplikan sampel air dilakukan pada 10 September 2023 pada 4 stasiun. Metode yang digunakan pada penelitian ini yaitu untuk mengkaji parameter fisik, kimia, biologi seperti temperatur, pH, DO, BOD, COD, TSS, total nitrogen, total fosfat, kecerahan, dan klorofil-a. Hasil analisis kualitas air dibandingkan dengan Peraturan Pemerintah Nomor 22 Tahun 2021 dan Trofik Status Indeks (TSI) Carlson's menunjukkan Telaga Cebong cocok untuk pengairan pertanian dengan kesuburan perairan cukup tinggi. Penggunaan pupuk kandang dan kimia menyebabkan status trofik tinggi karena kandungan TN dan TP pupuk masuk ke badan telaga karena limpasan sedimen lahan akibat aktivitas pertanian. Strategi yang dapat diimplementasikan di Telaga Cebong berdasarkan masalah yang terjadi yaitu pengelolaan fisik telaga seperti membersihkan alga pada tepi telaga, pengelolaan lahan pada tepi telaga dan dilakukannya pengerukan jika telaga dirasa sudah cukup dangkal, serta pengelolaan pupuk dan pestisida dalam penggunaan aktivitas pertanian.

Kata Kunci: *eutrofikasi, kualitas air, pengelolaan telaga*

STUDY OF TROPHIC STATUS AS AN EFFORT FOR WATER QUALITY MANAGEMENT IN TELAGA CEBONG WONOSOBO CENTRAL JAVA

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Eutrophication is the enrichment of nutrients in waters, especially nitrogen and phosphorus, which result is decrease in water quality. Trophic status categorized into oligotrophic, mesotrophic, eutrophic, and hypertrophic. Telaga Cebong catchment area is dominated by agriculture covering an area 156.96 Ha, equivalent to 65% of the total catchment area, the largest contributor of nutrients that come from fertilizer. This research aim to study water quality and trophic status, assess Sembungan Village farmer activity, and assess strategy for water management of Telaga Cebong. Water samples were collected on September 10th on 2023 at 4 stations. Method conducted on this research are field survey to collect physical, chemical, and biotic parameters like temperature, pH, DO, BOD, COD, TSS, total nitrogen, total phosphorus, brightness, and chlorophyll-a. The research found that the water quality analysis compared to Government Regulation Number 22/2021 and Carlson's Trophic Status Index (TSI) show that Telaga Cebong is suitable for agricultural irrigation with fertility is quite high. The use of manure and chemicals causes high trophic status because the TN and TP content of the fertilizer enters the lake body due to land sediment runoff due to agricultural activities. Strategies that can be implemented in Cebong Lake are based on the problems that occur, namely physical management of the lake such as cleaning algae on the edge of the lake, managing land on the edge of the lake and dredging if the lake is deemed shallow enough, as well as managing fertilizers and pesticides in agricultural activities.

Keywords: *eutrophication, water quality, lake management*