

KAJIAN PENCEMARAN PERAIRAN SUNGAI BABAK AKIBAT BUANGAN AIR LINDI TPA REGIONAL KEBON KONGOK KABUPATEN LOMBOK BARAT

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INTISARI

TPA Regional Kebon Kongok merupakan tempat pemrosesan akhir sampah yang terletak di Nusa Tenggara barat dengan luas lahan $\pm 5,41$ Ha. TPA Regional Kebon Kongok menerapkan system sanitary landfill. Tujuan dari penelitian ini adalah untuk mengkaji karakteristik air lindi TPA Kebon Kongok dan kualitas air Sungai Babak, mengkaji beban pencemaran dan tingkat pencemaran akibat buangan air lindi TPA Kebon Kongok, serta merumuskan strategi pengelolaan lingkungan yang diakibatkan dari buangan air lindi TPA Kebon Kongok,

Metode penelitian yang digunakan adalah metode survei, sampling dan observasi lapangan. Sampling air sungai dilakukan secara purposive sampling. Hasil pegujian laboratorium digunakan untuk menentukan beban pencemar, tingkat pencemar dan merumuskan strategi pengelolaan lingkungan. Analisis pada penelitian ini meliputi parameter Suhu, TDS, TSS, DHL, COD, BOD, NO_2 , NO_3 , Kadmium (Cd), dan bakteri Total Coliform. Berdasarkan dari hasil analisis, karakteristik air lindi TPA Kebon Kongok memiliki konsentrasi BOD dan COD yang melebihi baku mutu Peraturan Menteri Lingkungan Hidup Dan Kehutanan Republik Indonesia Nomor P.59/Menlhk/Setjen/Kum.1/7/2016, sedangkan kualitas air Sungai Babak menunjukkan bahwa beberapa parameter pH, BOD, Kadmium (Cd) dan Total Coliform melebihi baku mutu *Peraturan Pemerintah Number 22 Tahun 2021*.

Beban pencemaran tertinggi Sungai Babak yaitu parameter Total Coliform, BOD dan Kadmium, Tingkat pencemaran Sungai Babak memiliki status mutu air cemar sedang. Kesimpulanya, Sungai Babak mengalami penurunan kualitas akibat adanya buangan air lindi TPA Kebon Kongok. Strategi pengendalian pencemaran sungai yakni dengan pengoptimalan IPL TPA Regional Kebon Kongok, pengolahan sampah berbasis masyarakat serta peningkatan pengawasan terhadap buangan lindi dan pemantauan kualitas Sungai Babak.

Kata kunci: Pencemaran Lingkungan, Kualitas Air, Air Lindi, TPA

STUDY OF ENVIRONMENTAL POLLUTION OF BABAK RIVER WATERS

DUE TO LEACHATE OF KEBON KONGOK LANDFILL DISPOSAL,

WEST LOMBOK REGENCY

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ABSTRACT

Kebon Kongok Landfill is a final waste processing site located in West Nusa Tenggara with a land area of $\pm 5,41$ Ha. The Kebon Kongok landfill implements a sanitary landfill operating system. The aims of this research are to study the characteristics of Kebon Kongok landfill leachate and Babak River water quality, to calculate pollution load and environmental pollution index due to Kebon Kongok landfill leachate effluent, and formulate an environmental management strategy from Kebon Kongok landfill leachate, West Lombok Regency. This research used survey sampling technique and field observation. Sampling of river water is done by purposive sampling. Laboratory testing results were used to determine pollutant load, environmental pollution index and formulate environmental management strategies.

The analysis in this study included the parameters of Temperature, TDS, TSS, DHL, BOD, COD, NO₂, NO₃, Cadmium (Cd) and Total Coliform bacteria. Based on the results of the analysis, the characteristics of landfill leachate have concentrations of COD and BOD which exceed the quality standard of PP Number P.59/Menlhk/Setjen/Kum.1/7/2016, while the Babak River water quality shows that several parameters are pH, BOD, Cadmium and Total Coliform Bacteria exceed the quality standard PP 22/2021. The highest pollution load on the Babak River is the Total Coliform, while the Babak River pollution index from the whole location of the sampling point has the status medium polluted. In conclusion, the Babak River experienced a decline in quality due to the discharge of leachate water from the Kebon Kongok landfill. The river pollution control strategy is by optimizing the Kebon Kongok landfill WWTP, installing a aerator, monitoring leachate discharge

Keywords: *Environmental pollution, water quality, leacheate, landfill*