

ABSTRAK

Rahmat Wildan Firdaus

EVALUASI BUANGAN LINDI TERHADAP KUALITAS AIR TAMBAK SEKITAR TEMPAT PEMROSESAN AKHIR BENOWO SURABAYA TAHUN 2025.

xiv + 66 Halaman + 10 Tabel + 18 Lampiran

Tempat Pemrosesan Akhir (TPA) Benowo berpotensi mencemari lingkungan melalui buangan lindi yang mengandung senyawa organik dan anorganik. Kontaminasi ini dapat memengaruhi kualitas air tambak yang ada di sekitar TPA dan dimanfaatkan oleh masyarakat. Penelitian ini bertujuan mengevaluasi dampak buangan lindi pada kualitas air tambak di sekitar TPA Benowo Surabaya.

Studi ini mempergunakan metode deskriptif dengan pendekatan kualitatif serta desain *cross-sectional*. Objek penelitiannya yaitu tambak aktif milik warga yang berada pada jarak 500, 1.000, dan 1.500 meter dari TPA. Pengambilan sampel menggunakan teknik *composite sampling* dan dianalisis terhadap parameter pH, BOD, TDS, COD, serta Fe. Data didapat dari pengamatan dan pengukuran lapangan, kemudian disajikan berbentuk tabel serta grafik.

Temuan studi mengindikasikan bahwasanya kualitas air tambak di sekitar TPA Benowo telah mengalami penurunan, pada parameter BOD, COD, serta Fe yang melebihi ambang batas baku mutu Kelas III sesuai PP No. 22 Tahun 2021. Konsentrasi tertinggi ditemukan pada jarak 500 meter dari TPA dengan kadar BOD mencapai 145 mg/L, COD 1042 mg/L, serta Fe 0,83 mg/L. Nilai pH berkisar antara 7,5–8,0 dan TDS masih ada di batas baku mutu, yakni <1.000 mg/L. Temuan tersebut memperlihatkan adanya potensi cemaran air lindi terhadap tambak aktif yang digunakan masyarakat untuk budidaya ikan.

Nilai TDS dan BOD tertinggi ditemukan di jarak 500 m, sementara COD dan Fe mengalami fluktuasi dengan kecenderungan tetap tinggi hingga 1500 m, yang dipengaruhi oleh aliran air, serta limpasan permukaan. Distribusi pencemar tidak selalu menurun seiring bertambahnya jarak, menunjukkan bahwa kontaminasi lindi bersifat luas dan dinamis.

Kata Kunci : Air lindi, Kualitas air, TPA Benowo

Daftar Bacaan : 38 (37 Jurnal, 1 Peraturan)

ABSTRACT

Rahmat Wildan Firdaus

EVALUATION OF LEACHATE DISCHARGE ON THE QUALITY OF FISHPOND WATER SURROUNDING THE FINAL PROCESSING SITE BENOWO, SURABAYA IN 2025.

xiv + 66 Pages + 10 Tabels + 18 Appendices

The Benowo Landfill (TPA) has the potential to pollute the environment through leachate discharge containing organic and inorganic compounds. This contamination can affect the water quality of ponds surrounding the landfill, which are used by the community. This study aims to evaluate the impact of leachate discharge on pond water quality around the Benowo Landfill in Surabaya.

This study used a descriptive method with a qualitative approach and a cross-sectional design. The research subjects were active ponds owned by residents located 500, 1,000, and 1,500 meters from the landfill. Sampling was carried out using a composite sampling technique and analyzed for pH, BOD, TDS, COD, and Fe. Data were obtained from field observations and measurements and presented in tables and graphs.

The study findings indicate that pond water quality around the Benowo Landfill has declined, with BOD, COD, and Fe exceeding the Class III water quality standard thresholds as stipulated in Government Regulation No. 22 of 2021. The highest concentration was found 500 meters from the landfill, with BOD levels reaching 145 mg/L, COD 1042 mg/L, and Fe 0.83 mg/L. The pH ranged from 7.5–8.0, and the TDS remained within the quality standard, which is <1,000 mg/L. These findings indicate the potential for leachate contamination in active ponds used by the community for fish farming.

The highest TDS and BOD values were found at a distance of 500 meters, while COD and Fe showed fluctuations with a tendency to remain high up to 1500 meters, influenced by water flow and surface runoff. The distribution of pollutants does not always decrease with increasing distance, indicating that leachate contamination is widespread and dynamic.

Keywords : Leachate, Water Quality, TPA Benowo

References : 38 (37 Journals, 1 Regulation)