

ANALYSIS OF BOD, AMMONIA, TSS, AND TURBIDITY LEVELS IN SEA WATER RECEIVING VANAME SHRIMP POND LIQUID WASTE IN CEMARA UDANG BEACH, BANTUL REGENCY

Ratieh Puteri Ryani, Haryono, Bambang Suwerda, Tri Mulyaningsih
Department Environmental Health Poltekkes Kemenkes Yogyakarta,
Jl. Tata Bumi No.3 Banyuraden, Gamping, Sleman
Email: puteriryani92@gmail.com

ABSTRACT

Background: *Shrimp ponds at PT Indokor Bangun Desa have the potential to cause pollution of seawater quality at Cemara Udang Beach. Shrimp ponds have not processed the waste produced, by flowing it into the open sea. Waste processing that is not optimal results in environmental pollution. The Province of DIY has regulated the quality standards of wastewater for shrimp farming industry activities in DIY Regional Regulation No. 7 of 2016.*

Objective: *Determining the levels of BOD, Ammonia, TSS, and Turbidity in seawater receiving liquid waste from Vaname shrimp ponds at Cemara Udang Beach, Bantul Regency.*

Method: *The type of survey research uses a descriptive analysis method. Research parameters include: BOD, Ammonia, TSS, and Turbidity. Data collection is carried out directly in the field. The samples taken are seawater receiving liquid waste from vaname shrimp ponds. The sampling method uses the Purposive Sampling method by determining 3 sampling points and repeating 3 times.*

Result: *The quality of seawater receiving liquid waste from vaname shrimp ponds has an average BOD content of 6.23 mg/L, Ammonia content of 0.5404 mg/L, TSS content of 16.67 mg/L, and Turbidity content of 16.23 ntu.*

Conclusion: *The quality of seawater receiving liquid waste from vaname shrimp ponds at Cemara Udang Beach for BOD and TSS parameters meets the quality standards, while the Ammonia and Turbidity parameters exceed the quality standards of the Regulation of the Governor of the Special Region of Yogyakarta Province Number 3 of 2010 concerning Seawater Quality Standards for Marine Tourism.*

Keyword: *Shrimp Pond, Liquid Waste, Sea Water Quality*

ANALISIS KADAR BOD, AMONIA, TSS, DAN KEKERUHAN DI PERAIRAN AIR LAUT PENERIMA LIMBAH CAIR TAMBAK UDANG VANAME DI PANTAI CEMARA UDANG, KABUPATEN BANTUL

Ratieh Puteri Ryani, Haryono, Bambang Suwerda, Tri Mulyaningsih
Jurusan Kesehatan Lingkungan Poltekkes Kemenkes Yogyakarta,
Jl. Tatabumi No. 3 Banyuraden, Gamping, Sleman
Email: puteriryani92@gmail.com

INTISARI

Latar Belakang: Tambak udang di PT Indokor Bangun Desa memiliki potensi menyebabkan pencemaran kualitas air laut di Pantai Cemara Udang. Tambak udang belum melakukan pengolahan secara maksimal terhadap limbah yang dihasilkan dengan mengalirkan ke laut lepas. Pengolahan limbah yang belum maksimal mengakibatkan pencemaran lingkungan. Provinsi DIY juga telah mengatur tentang baku mutu air limbah untuk kegiatan industri budidaya udang dalam Perda DIY No.7 Tahun 2016.

Tujuan: Mengetahui kadar BOD, Amonia, TSS, dan Kekeruhan di perairan air laut penerima limbah cair tambak udang Vaname di Pantai Cemara Udang, Kabupaten Bantul.

Metode: Jenis penelitian survey menggunakan metode analisis secara deskriptif. Parameter penelitian meliputi: BOD, Amonia, TSS, dan Kekeruhan. Pengumpulan data dilakukan secara langsung di lapangan. Sampel yang diambil berupa air laut penerima limbah cair tambak udang vaname. Metode sampling menggunakan metode *Purposive Sampling* dengan menetapkan 3 titik pengambilan sampel dan pengulangan 3 kali.

Hasil: Kualitas air laut penerima limbah cair tambak udang vaname memiliki nilai rata-rata kadar BOD sebesar 6,23 mg/L, kadar Amonia sebesar 0,5404 mg/L, kadar TSS sebesar 16,67 mg/L, dan kadar Kekeruhan 16,23 ntu.

Kesimpulan: Kualitas air laut penerima limbah cair tambak udang vaname di Pantai Cemara Udang untuk parameter BOD dan TSS memenuhi baku mutu, sedangkan parameter Amonia dan Kekeruhan melebihi baku mutu Peraturan Gubernur Provinsi Daerah Istimewa Yogyakarta Nomor 3 Tahun 2010 tentang Baku Mutu Air Laut untuk Wisata Bahari.

Kata Kunci: Tambak Udang, Limbah Cair, Kualitas Air Laut