

**ANALISIS PENCEMARAN AIRTANAH AKIBAT KEGIATAN DOMESTIK PENDUDUK
DI DESA TRIMULYO KECAMATAN JETIS KABUPATEN BANTUL
DAERAH ISTIMEWA YOGYAKARTA**

INTISARI

Kebutuhan ruang untuk kegiatan domestik penduduk di Yogyakarta semakin meningkat. Kegiatan domestik penduduk yang semakin meningkat, mengakibatkan bertambahnya limbah rumah tangga. Hal tersebut sangatlah berpengaruh terhadap kualitas airtanah karena limbah rumah tangga yang dibuang akan terserap kedalam tanah dan mencemari airtanah maupun sungai. Tujuan dari penelitian ini adalah: (1) Mengetahui arah aliran airtanah serta sebaran pencemaran airtanah akibat kegiatan domestik penduduk di lokasi penelitian, (2) Mengetahui besar pengaruh kegiatan domestik penduduk terhadap kualitas airtanah ditinjau dari parameter TSS, pH, BOD, COD, dan coliform, (3) Mengetahui teknis pengelolaan yang tepat untuk mengatasi pencemaran airtanah akibat kegiatan domestik penduduk di lokasi penelitian.

Metode penelitian yang digunakan dalam penelitian ini adalah metode survei, pemetaan dan analisis uji laboratorium. Uji laboratorium dilakukan untuk mengetahui TSS, pH, BOD, COD, dan coliform pada sampel airtanah. Hasil pengujian tersebut dibandingkan dengan kriteria menurut peraturan Gubernur DIY Nomor 20 Tahun 2008 tentang baku mutu air (Kelas I) di Daerah Istimewa Yogyakarta.

Berdasarkan hasil penelitian diketahui bahwa arah aliran airtanah adalah dari utara ke selatan dan cenderung menuju ke sungai. Penyebab pencemaran limbah akibat kegiatan domestik penduduk mengikuti arah aliran airtanah. Berdasarkan hasil pengujian sampel di laboratorium diketahui bahwa parameter BOD, COD, dan E-coli melebihi baku mutu. Arah teknis pengelolaan yang tepat untuk mengatasi pencemaran limbah rumah tangga akibat kegiatan domestik penduduk yaitu dengan instalasi pengelolaan air limbah secara sedimentasi dan secara biologis dengan menggunakan penampung reaktor anaerobik.

Kata Kunci: Airtanah, Air Limbah Rumah Tangga, Kualitas Airtanah, Pencemaran.

ANALYSIS OF THE GROUNDWATER POLLUTION LEVEL AS A RESULT OF THE PRESENCE OF DOMESTIC ACTIVITIES OF THE PEOPLE AT TRIMULYO VILLAGE JETIS DISTRICT OF BANTUL SPECIAL REGION OF YOGYAKARTA

ABSTRACT

The space requirements for domestic activities is increasing in Yogyakarta. Domestic activities of the population is increasing, resulting in increased household waste. It is affecting the quality of groundwater as household waste dumped will be absorbed into the soil and contaminate groundwater and rivers. The purpose of this study are: (1) To determine the direction of groundwater flow and the distribution of groundwater pollution as a result of domestic activities in the study site, (2) To determine the influence of domestic activities on quality of groundwater in terms of the parameters of TSS, pH, BOD, COD, and coliform, (3) To determine the proper technical management to address groundwater contamination as a result of domestic activities in the study sites.

The method used in this research were survey, mapping and analysis of laboratory tests. Laboratory tests conducted to determine the TSS, pH, BOD, COD, and coliform in groundwater samples. The test results will be compared with the criteria according to the regulations the Governor of Yogyakarta No. 20 of 2008 on water quality (Class I) in Yogyakarta.

Based on the research it is known that the direction of groundwater flow is from north to south and inclined toward the river. The cause of domestic waste pollution due to activities follow the direction of groundwater flow. Based on the results of laboratory testing of samples in mind that the parameters BOD, COD, and E-coli exceed the quality standards. From the results of research in the field and laboratory testing of samples, technical direction appropriate management to tackle household waste pollution due to domestic activities population that is by applying the tools wastewater treatment installation in sedimentation and biological agent by using anaerobic reactor container.

Keywords: Groundwater, Domestic Wastewater, Groundwater Quality, Pollution.