

**KUALITAS AIR IRIGASI PADA KAWASAN INDUSTRI
DI KALURAHAN SITIMULYO, KAPANEWON PIYUNGAN,
KABUPATEN BANTUL**

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ABSTRAK

Kalurahan Sitimulyo merupakan daerah pengembangan industri di Kepanewon Piyungan yang dapat menimbulkan pencemaran limbah cair industri pada sungai opak dan saluran irigasi yang diperuntukkan untuk persawahan. Penelitian ini bertujuan untuk mengetahui mutu air untuk keperluan irigasi dengan metode Indeks Pencemaran dan mengetahui kualitas air irigasi berlandaskan PP No. 82 Tahun 2001. Penelitian dilaksanakan menggunakan metode survei untuk penentuan lokasi. Titik sampel ditentukan secara *purposive sampling* berdasar sumber pencemar. Ditentukan sepuluh titik untuk dilakukan pengujian. Status mutu air irigasi ditetapkan menggunakan metode Indeks Pencemaran. Parameter yang diuji yaitu suhu, pH, *Total Dissolved Solid* (TDS), Nitrat, *Biological Oxygen Demand* (BOD), *Chemical Oxygen Demand* (COD), Daya Hantar Listrik (DHL), Total Fosfat, Pb, dan Cr. Dilakukan pula pengujian terhadap kadar Pb dan Cr pada endapan sungai sebagai data pendukung. Hasil penelitian menunjukkan bahwa mutu air untuk irigasi di Kalurahan Sitimulyo sudah sesuai dengan PP No. 82 Tahun 2001. Status mutu air Sungai Opak untuk keperluan irigasi berdasar pengukuran menggunakan metode Indeks Pencemaran termasuk dalam kategori tidak tercemar. Namun hasil dari data pendukung berupa sedimen perairan menunjukkan bahwa kandungan Pb dan Cr memiliki tingkat kontaminasi rendah hingga sedang.

Kata Kunci: Indeks Pencemaran, Kualitas Air Irigasi, PP No. 82 Th 2001.

IRRIGATION WATER QUALITY IN INDUSTRIAL AREA IN SITIMULYO VILLAGE, PIYUNGAN DISTRICT, BANTUL REGENCY

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ABSTARCT

Sitimulyo sub-district is an industrial development area in Piyungan District which can cause industrial liquid waste pollution in the Opak river and irrigation canals intended for rice fields. This research aims to determine the quality of water for irrigation purposes using the Pollution Index method and determine the quality of irrigation water based on PP No. 82 of 2001. The research was carried out using survey methods to determine the location. Sample points are determined by randomly *purposive sampling* based on pollutant sources. Ten points were determined to be tested. The quality status of irrigation water is determined using the Pollution Index method. The parameters tested were temperature, pH, *Total Dissolved Solid* (TDS), Nitrate, *Biological Oxygen Demand* (BOD), *Chemical Oxygen Demand* (COD), Electrical Conductivity (DHL), Total Phosphate, Pb, and Cr. Tests were also carried out on Pb and Cr levels in river sediments as supporting data. The research results show that the water quality for irrigation in Sitimulyo District is in accordance with PP No. 82 of 2001. The water quality status of the Opak River for irrigation purposes based on measurements using the Pollution Index method is included in the unpolluted category. However, the results of supporting data in the form of aquatic sediments show that the Pb and Cr contents have low to moderate levels of contamination.

Keywords: Irrigation Water Quality, PP No. 82 of 2001, Pollution Index