

ABSTRAK
ANALISIS PENGARUH FLUKTUASI MUKA AIR EMBUNG B
(RUSUNAWA) TERHADAP KETERSEDIAAN AIR TANAH
DI LINGKUNGAN UNIVERSITAS LAMPUNG

Oleh:

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Keberadaan empat embung sebagai infrastruktur pengumpulan air hujan di Universitas Lampung diharapkan dapat meningkatkan proses infiltrasi dan mengisi akuifer air tanah. Namun, ancaman kesulitan air baku di lingkungan tersebut dapat terjadi akibat berkurangnya wilayah resapan. Oleh karena itu, penelitian komprehensif diperlukan untuk memahami unsur-unsur penting dalam menjaga ketersediaan air tanah. Penelitian ini bertujuan untuk menganalisis akuifer air tanah, mengidentifikasi fluktuasi muka air embung B, dan menganalisis hubungan elevasi muka air embung terhadap ketersediaan air tanah di lingkungan Universitas Lampung. Metode penelitian yang digunakan adalah dengan interpretasi data geolistrik dan menghitung fluktuasi level muka air pada Embung. Hasil analisis menunjukkan bahwa akuifer air tanah dangkal diperkirakan berada pada kedalaman antara 10 hingga 30 meter, sementara akuifer dalam terletak pada kedalaman 80 hingga 130 meter dengan lapisan tuff pasiran. Besar fluktuasi muka air tertinggi adalah 14 cm terjadi saat hujan dengan intensitas 52,1 mm/hari, tidak terjadi perubahan level muka air sebanyak 7 kali pada saat intensitas hujan 0 - 2,4 mm/hari, dan rata-rata fluktuasi yang terjadi adalah sebesar 0,5 cm/ 8 jam.

Kata kunci: *Fluktuasi air embung, Ketersediaan air, Universitas Lampung.*

ABSTRACT

ANALYSIS OF THE INFLUENCE OF RESERVOIR WATER LEVEL FLUCTUATIONS OF RESERVOIR B (RUSUNAWA) ON GROUNDWATER AVAILABILITY AT THE ENVIRONMENT OF LAMPUNG UNIVERSITY

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The presence of four reservoirs as rainwater collection infrastructure at the University of Lampung is expected to enhance the infiltration process and recharge the groundwater aquifers. However, the threat of water scarcity in the area may arise due to the reduction of recharge areas. Therefore, a comprehensive study is necessary to understand the important factors in maintaining groundwater availability. This research aims to analyze groundwater aquifers, identify fluctuations in the water level of Reservoir B, and analyze the relationship between the elevation of the water level in the reservoir and the availability of groundwater in the University of Lampung environment. The research methodology involves the interpretation of geoelectric data and the calculation of water level fluctuations in the reservoir. The analysis results indicate that the shallow groundwater aquifer is estimated to be located at depths ranging from 10 to 30 meters, while the deeper aquifer is situated at depths of 80 to 130 meters with a layer of sandy tuff. The highest fluctuation in water level is recorded at 14 cm during rainfall with an intensity of 52.1 mm/day. There were no significant changes in the water level observed during rainfall with intensities ranging from 0 to 2.4 mm/day, and the average fluctuation observed is approximately 0.5 cm every 8 hours.

Keywords: Reservoir water fluctuations, Water availability, Lampung University.