

APLIKASI MODEL MOCK UNTUK ANALISIS KETERSEDIAAN AIR DAERAH ALIRAN SUNGAI TAMBAKBAYAN

INTISARI

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Ketersediaan air di Daerah Aliran Sungai Tambakbayan penting untuk diketahui agar dapat dimanfaatkan secara optimal dan bijaksana. Ketersediaan air ini diharapkan mampu memenuhi segala kebutuhan air masyarakat. Ketersediaan air yang relatif tetap namun kebutuhan air yang terus bertambah seiring dengan penambahan penduduk mendorong untuk dilakukannya analisis mengenai ketersediaan air di Daerah Aliran Sungai Tambakbayan.

Analisis ketersediaan air pada penelitian ini menggunakan model hidrologi Mock karena data debit yang tersedia terbatas. Parameter-parameter pada model hidrologi Mock akan menggambarkan karakteristik hidrologi di sub DAS Tambakbayan. Dalam menentukan parameter-parameter model hidrologi mock perlu dilakukan kalibrasi dan verifikasi. Simulasi model hidrologi mock dilakukan tahun 2003-2006 dan 2012.

Hasil penelitian yang berada pada Daerah Aliran Sungai Tambakbayan menunjukkan ketersediaan air yang dapat dimanfaatkan sebesar 2114631.8 m³/tahun dengan pertimbangan setiap tahun dilakukan pengisian pada Embung Tambakboyo. Ketersediaan air ini dapat dimanfaatkan dengan membuat sarana dan pra sarana untuk pengambilan air namun harus dikelola dengan baik oleh pemerintah sehingga tidak disalahgunakan.

Kata kunci: Embung, Model Hidrologi Mock, Parameter-parameter Model hidrologi Mock, Kalibrasi, Verifikasi, Simulasi model, Ketersediaan air

AN APPLICATION OF MOCK MODEL FOR THE ANALYSIS OF WATER AVAILABILITY IN TAMBAKBAYAN WATERSHED

ABSTRACT

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The water availability in Tambakbayan watershed is important to be known in order to be used optimally and wisely. This water availability was hoped can fulfill all of the public water needs. The water availability that relatively constant however the water needs continuously increase along with the public growth was the reason that motivated the researcher to have an analysis about the water availability in Tambakbayan watershed.

The analysis of the water availability in this research used Mock hydrology model because the available data debit was limited. Mock hydrology model parameters would describe the hydrology characteristics in Tambakbayan watershed. To determine the parameters of Mock hydrology model, it is used to held calibration and verification. Mock hydrology model simulation was held in 2003-2006 and 2012.

The result of this research showed that the water availability which can be used in amount of 2114631.8 m³/year with consideration in every year it was conducted water filling in Tambakboyo *embung*. This water availability can be used optimally by make infrastructure for the water withdrawal, but it must be managed wisely by the government therefore there would not be misuse by the people.

Key words: *Embung*, Mock Hydrology Model, Mock Hydrology Model Parameters, Calibration, Verification, Model Simulation, Water Availability.