

PENGARUH PEMAKAIAN RUMUS CN KONVERSI TERHADAP BANJIR

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Telah dipertahankan di depan Dewan Penguji
Pada tanggal 24 Juli 2012

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ABSTRACT

Surface runoff can be influenced by soil ability to absorb or hold water that indicated in the value of maximum potential retention. The value of maximum potential retention obtained from the Curve Number (CN) conversions formula that used in dry conditions (AMC_I) and wet conditions (AMC_{III}). This study aims to see the effect of CN-conversion formula application on the design flood calculation.

The calculation of excess rainfall using the Soil Conservation Service Curve Number (SCS-CN) method. There are two ways to calculate design flood in this study, which is based on CN measured data and CN landuse. CN measured data calculated based on rainfall data while CN landuse calculated by using Arc GIS 9 software. Then the value of design flood can be calculate by applicate CN-conversion formula.

Results of the study concluded that application CN-conversion formula gives design flood value based on CN measured data greater than design flood value based on CN landuse. In the calculation of the design flood, the effect of Hawkins CN-conversion formula application gives 49% relative error and CN-conversion formula application by study gives 62% relative error.

Keywords : *Antecedent Moisture Condition, Curve Number, landuse*