

Pengaruh analisis hujan das terhadap ketersediaan air berdasarkan model hujan-aliran rainrun

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Abstrak

Water resources development requires climatology data including rainfall. Rainfall as the main input to a catchment affects to the river flow at the catchment of interest. Therefore, rainfall analysis should be conducted carefully to get the most accurate results. Number of methods are widely used for calculating the mean areal rainfall. Choosing the most accurate method among the available method is needed in order to get the accurate catchment rainfall used as an input of rainfall-runoff model such as Rainrun model. In this paper, effect of catchment rainfall calculated using arithmetic and Polygon Thiessen on the accuracy of dependable-flow resulted from Rainrun model is presented. Gajahwong catchment at Papringan is selected for the study.

The results show that number of rainfall stasions and the method used for the analysis affect to the accuracy both catchment rainfall and dependent flow. Minimum rainfall station numbers used for analysis by using Polygon Thiessen method is 5 stations. It gives 2.5% deviation Q80% compared to the observed data. For the arithmetic method, the minimum number of stations is 6 stations. It yield 8.3% deviation of Q80% compared to the observed data.