

Atchara Chaya 2006: Water Resources Potential Assessment in Quantity and Quality Dimensions of Pasak River Basin. Master of Science (Watershed and Environmental Management), Major Field: Watershed and Environmental Management, Department of Conservation. Thesis Advisor: Assistant Professor Jukkrit Mahujchariyawong, Ph.D. 106 pages.
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This study aims to assess the water resources potential of Pasak River Basin in dimensions of quantity and quality by separating water demand into three sections; consumption, agriculture and industry. The assessment of demand status shows that the water demands for consumption, agriculture and industry are 5858.27-6334.12, 32.58-130.34 and 18.38-36.77 million m³/y respectively, while the water quality should be class 1-4, 1-3 and 1-4 respectively. In the supply side, Pasak River can serve averagely 2893.30 million m³/y of water volume. It means water quantity is in the crisis status and cannot match the required volume. By using water quality parameters for classification, the water in dry and wet period in year of 2005 has a quality in class 4 and 5 of surface water quality standard, with volume of 132.88 and 45.3 million m³/y respectively. The assessment of the water quality in both periods shows that surface water quality is in the warning status and with the combination of assessment in quantity and quality dimensions, Pasak River is in the risky status. This basic information indicates that the potential of Pasak River in the terms of quantity and quality is low level to achieve the water demand in each section. Thus, the effective water resources management is necessary for serving the water in quantity and quality dimensions.

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