

Potential streamflow at Sakaerat Environmental Research Station, King Amphoe

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ABSTRACT

This research was carried out in field study during April 1993 through March 1994 and collected secondary data of streamflow during 1978-1992 on four subwatersheds namely Huay Wanasart (natural dry evergreen forest), Huay Kokped (natural dry dipterocarp forest), Huay Tayoo (natural succession with forest plantation) and Huay Namkem (plantation with some dry evergreen forest). The result found that potential streamflow of Huay Wanasart, Huay Kokped, Huay Tayoo and Huay Namkem were 18,290-45,579, 697-13,438, 58,387-465,806 and 102,679-125,000 cu.m./sq.km. or 1.24-3.70, 0.05-0.91, 6.98-37.78 and 7.02-10.71 percent of rainfall respectively. Average overall watershed was 8.26 percent of rainfall. According to wet period and dry period, the result showed that Huay Wanasart, Huay Kokped, Huay Tayoo and Huay Namkem were 15,900-48,850, 1,400-25,940, 18,100-143,900 and 1,196,690-1,347,300 cu.m. or 53.54-73.91, 96.04-100, 62.81-100 and 79.84-88.88 percent of total streamflow in wet period and 9,100-27,100, 0-1,070, 0-32,260 and 154,120-340,200 cu.m. or 26.19-46.46, 0.00-3.96, 0.00-37.19 and 11.12-20.16 percent of total streamflow in dry period respectively. The limited factor of potential streamflow of Sakaerat Environmental Research Station is the geological characteristic. There are so many faults and joints in watershed area that cause some water leakage to groundwater.