

Pisut Sangmanee 2007: Effect of Check Dam on Streambank Soil Moisture Change at Huay Pasao, Sangklaburi District, Kanchanaburi Province. Master of Science (Watershed and Environmental Management), Major Field: Watershed and Environmental Management, Department of Conservation. Thesis Advisor: Associate Professor Wicha Niyom, Ph.D. 102 pages.

This study had been conducted during the late rainy season (Sept 10, 2005) until to end of stream flowing (Feb 20, 2006) by using electric resistance block to analyze soil moisture variation every 5 days. Streambank soil samples were taken from 3 check dams and one without check dam. They were collected a depth of 5, 30, 60 and 80 cm to compare the variation soil moisture between with and without check dams.

The result found that upper soil level at a depth of 5-30 cm with and without check dams were not difference in soil moisture during the late rainy season. In contrast, lower soil level at a depth of 30 cm which have check dam had higher soil moisture without check dam approximately at 3-5 % by volume in the early dry season. Soil moisture at 30-60, 60-80 cm of check dam were grester than without check dam along the study period with 2-4 % by volume and 3-5 % by volume in the late rainy season and 2-4 % by volume and 5-6 % by volume in the dry season respectively. Soil moisture increased with respect to soil depths effected by check dam. Average soil moisture with check dams had higher than without check dam approximately 0.15 mm / 1 cm soil depth in the late rainy season and 0.29 mm / 1 cm soil depth in the dry season.

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