

Napon Anuttarungoon 2009: Organic and Plant Nutrient Loading in Pasak River Basin.  
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Environmental Management, Department of Conservation. Thesis Advisor:  
Associate Professor Sittichai Tantanasarit, Ph.D. 129 pages.

The objectives of this study were firstly to quantity of the organic loading as BOD and the nitrate and phosphate loading, the secondly to compare of such loading was originated from various land use, such as forest, agriculture, and community area, the finally to identify procedure to reduced water pollution using calculating population data, water use in each municipality, effluent concentration value, and water quality from representative watershed. The data was from both periods of dry (November 2004 – January 2005) and wet (May – July 2005).

The organic loading as BOD, and nutrient in form of nitrate and phosphate loading in forest and agricultural zones in Pasak river basin were shown as followed. In wet period, the loads originated from forest area were 704.95, 106.16 and 4.03 kg/day respectively and 0.06, 0.06 and 0.16 kg/day respectively in dry period. The loads originated from agricultural area in wet period were 2,643.03, 307.58 and 29.17 kg/day respectively and in dry period the load were 4.22, 4.22 and 2.00 kg/day respectively. The loads in community area were 9,818.94, 8.06 and 589.81 kg/day respectively. The results could be used to set the guideline to manage the pollution both at point and non-point souce incorporation with people participation. The solution was come up in 5 measures: 1) enhancing the knowledge and information of water pollution to public; 2) prevention and control water pollution at soures; 3) restoration and rehabitetion of Pasak river basin; 4) enhancing the cooperation management by participation concept; 5) supporting in wastewater treatment system. Accordingly, with mentioned measures, the water quality in Pasak river basin would be better.

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