

Thananrada Chobsamran 2014: The Study of Community Participation for Water Quality Management: A Case Study of Three Communities in Nakhon Pathom Province. Master of Science (Environmental Science and Technology), Major Field: Environmental Science and Technology, Division of Science. Thesis Advisor: Mr. Kittipot Permpul, Ph.D. 161 pages.

Objectives of the study were to study on community participation for water quality management by comparing the effect of community activities to physical chemical and biological water quality. The study areas located in three agriculture communities including Ban Sahakorn, Phurksa 4 village and Wat Kare, Nakhon Pathom province. Water samples were collected twice, before and after the intervention from 6 stations in the study areas. For water quality determination; water temperature, conductivity, turbidity, salinity, pH, DO, BOD<sub>5</sub>, COD, NH<sub>3</sub>-N, TP, TCB, FCB were evaluated. The community participation potential was carried out by using the Water Pollution Reduction by Community Assessment form. The result showed that highest WQI value was Wat Kare of 8.0 point, following by Phurksa 4 village of 6.8 and Ban Sahakorn of 2.8, respectively. However, the water qualities were slightly better because these areas used for residential and agricultural. The result for the study of potential assessment for community participation in Ban Sahakorn showed the greatest value following by Wat Kare and Phurksa 4 village which were 9.09, 8.80 and 8.64 respectively. The community participation for water quality management showed slightly better water quality in three communities. However, the result showed that community participation can help to improve water quality in studied area.

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Thesis Advisor's signature