

Patcharaporn Kaewsumran 2009: Evaluation of Village Pipe Water Quality in Tambol Thaisamakkee, Amphoe Wang Nam Khiao, Nakhon Ratchasima Province. Master of Science (Sustainable Land Use and Natural Resource Management), Major Field: Sustainable Land Use and Natural Resource Management, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Charanai Panichajakul, Ph.D. 149 pages.

This research aimed to evaluate the qualities of both raw surface waters and respective village pipe waters produced from two different treatment systems used in five villages namely, Klong Yamo, Bu Trai, Klong Trai, Thaipatthana and Suksomboon, which are located in Tambol Thaisamakkee, Amphoe Wang Nam Khiao, Nakhon Ratchasima Province, where the pipe water treatment system of Department of Accelerated Rural Development is employed in the first three villages and that of the Department of health in the latter two. Physical, chemical and biological analyses were performed on water sample during October 2003 to August 2004. The results indicated that the surface water quality on study area belonged to Class2 according the surface water quality of the Pollution Control Department, 1995. Turbidity and color levels were high in rainy season. Interviewing representative water users' views on water pipe water quality revealed appearances of turbidity, reddish-brown and grey colors, precipitate, dirt, mud and kettle scale in water from the three villages of Klong Yamo, Bu Trai and Klong Trai, which were in line with the laboratory analysis results showing that their pipe waters did not meet the standards for the water supply quality of the Department of health, 2000 due to exceeding predominantly standard values for turbidity, color iron, coliform bacteria fecal coliform bacteria. On the contrary, most water samples from Thaipatthana and Suksomboon villages met the quality standards. This investigation indicated the water treatment of the Department of health is more efficient than of the Department of Accelerated Rural Development.

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Thesis Advisor's signature