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REAL ESTATE UNDER ENVIRONMENTAL IMPACT ASSESSMENT

PONGSAK AUESUWANNA: WASTEWATER MANAGEMENT OF REAL ESTATES UNDER ENVIRONMENTAL IMPACT ASSESSMENT AND SOME FACTORS AFFECTING ITS QUALITIES IN BANGKOK METROPOLITAN REGION. THESIS ADVISORS: SIRANEE SREESAI, D.Tech.Sc. (Nat. Resource M.), UDOM KOMPAYAK, M.P.H. (Env. H.), SUTHEP SILAPANUNTAKUL, Ph.D. (Med.&Vet. Entomology), SHALASAI HUANGPRASERT, M.P.H. (Env. H.), JIRAPON VIBOOLYAVATANA, M.S. in Hyg (Malacology), KLUEPUN BITRAKUL, M. Sc (Environmental Health Science)., 91 p. ISBN 974-664-867-5

Municipal wastewater is a major cause of water pollution. The study of 109 real estates wastewater management under the Environmental Impact Assessment (EIA) and some factors affecting its qualities in Bangkok Metropolitan region was conducted to determine the cause of wastewater management problems and analyze the relationship of factors affecting wastewater management quality. A questionnaire was developed for interviewing the real estate project manager and other related people about compliance with commitments in EIA report and problems of wastewater management. Wastewater effluent was also sampled before discharging, then analyzed and compared with the effluent standard of the real estate.

Results showed that most of real estates (55.0%) did not continue the operation of central treatment plant and 64.2% did not have wastewater operator. Moreover 96.3% did not submit wastewater analysis report to the Office of Environmental Policy and Planning and 35.8% of analyzed wastewater results did not meet the requirement of the effluent standard. Most of wastewater management qualities were categorized to the rating of fair and poor. Statistical analysis showed that only the percentage of occupied house had a significant relationship (p-value < 0.05) with wastewater management quality, whereas type and characteristics of real estate and type of chosen central wastewater treatment plant had no significant relationship (p-value > 0.05) with wastewater management quality. The results indicated that wastewater management problem would increase following the increasing number of resident. Moreover, there is a need of strict enforcement measures for real estates to practice all of commitments in EIA reports in order to improve wastewater management quality and prevent water pollution as a whole.