

ABSTRACTS

Research Title : Waste water treatment by alternative renewable energy in Bangbuathong Subdistrict, Nonthaburi Province
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This research aims to analyze the quality of domestic wastewater point sources and monitoring the quality of wastewater in Sam Wang Canal at Bangbuathong subdistrict, Nonthaburi province. And using alternative energy therapy for designing a small wastewater treatment model for the demonstration. And studies on the performance of wastewater treatment was designed. This research was be experimental research and development. The methodology of this research was conducted analysis of experimental design and installed a small wastewater treatment along with the actual demonstration in study area. The community and all parties were involved in the research. The results showed that the water quality of the whole community two canals had inferior than the surface water quality index according to the National Environment Board No. 8 was issued under The Enhancement and Conservation of National Environmental Quality Act 2535. And found that the average dissolved oxygen, BOD and oil and fat were being 0.45 to 0.60, 77.48 to 92.29 and 32.50 to 96.9 milligrams per liter respectively. The result of performance testing for the small wastewater treatment shown that it can reduce the impurities in the form of oils and fats. BOD and total dissolved solids up to 94.26% 71.93% and 54.09% respectively. The increasing of the demand oxygen (DO) in 100 meters along the length of this canal up from 0.88 mg/l to 3.98 mg/l. The suggestions of them for solving water quality problems are to reduce the organic loading from the most point sources by installation of on-site treatment and there should be a comprehensive process for managing wastewater throughout the training and give knowledge of local authorities periodically. And should provide the surveillance the water quality in the form of activities in the community continues.

keywords: Wastewater management, Alternative energy, Samwang canal, Bangbuathong Subdistrict