

## Abstract

**Research Title :** Water Resources Management Guidelines for Sustainable Water Consumption, Samut Songkram Province

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**Year :** 2012

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The objective of this research were monitor water quality In the Samut songkram province and prepare Geographic Information System of water resources. The final approach guidelines for the management of water resources for consumer. The water quality in this study including surface water and groundwater. In 3 district, in Samut Songkhram province. 69 samples site of surface water sample were collected in Amphawa District and 80 samples site in Bangkhonti Districis and 68 samples site in mueng Distric. Total 217 samples site .And 24 wells groundwater samples site were collected. the sample were collected in the winter season in December 2554, March 2555 for summer and rainy season in August 2555.

Surface water quality analysis found that the temperature of lead acid - alkaline (pH), dissolved oxygen BOD, nitrogen compounds in nitrate and ammonia and total fecal coliforms bacteria under The surface water quality standards in the three ty pes of PCD. Ministry of Natural Resources and Environment,Thailand. the concentration of heavy metals including lead, cadmium, copper compounds and zinc compounds is higher than the surface water quality standards. The total value of the TDS (TDS), and turbidity of the water is higher. But no standard set and salinity of the water, nitrite nitrogen in a low. But no standard set

The result showed that most of the groundwater in the groundwater quality standards for consumers. Ministry of Natural Resources and the Environment - acid pH, turbidity, chlorine and nitrogen as nitrate, sulfate, hardness of water, copper compounds and zinc compounds. The ground water quality standards and higher. Total dissolved solids (TDS) Cadmium and lead. The salinity of the water. Conductivity. And nitrogen compounds into nitrites. No standard set But low volume.

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Guidelines for the management of surface water quality, including ways to reduce water pollution from point sources. Provide for the collective management of waste water before discharging into water bodies to the campaign for the CSR practice. Provide water quality monitoring stations in each district. The government should prepare an integrated water quality management plan in collaboration with the public sector as part of the groundwater quality management system should be controlled. Monitor water quality before and after the water is continuously produced. Should be a system to control and monitor the effectiveness of water treatment processes in the source water. There should be a water filtration system in the area. And should form a proper water supply in the area.

**Keyword :** Water quality Samut songkram province.