

# Wetland water quality in critical condition

*Sakon Nakhon Province, Thailand*

Water quality in Nong Han reservoir, Thailand's second largest source of fresh water, has reached critical condition due to water pollution and lack of treatment stations.

Mr. Nipon Mulmuangsan, Nam Kam Wetland team leader under the Mekong River Commission's Xe Bang Heang and Nam Kam Wetland Management Project, said that while contamination of the reservoir had long been recognised by local authorities, poor water quality was now posing a significant threat to water supplies.

"266 m3 of water is available in Nong Han reservoir. This is a great amount of water but in reality, only half of it is usable and the main problem is water quality," Mr. Mulmuangsan said.

A May 2016 study by the Wetland Management Project in has identified water pollution as the second highest concern of local residents after the worrisome about land encroachment and land loss.

Water from the reservoir is mainly used for general consumption by communities around the reservoir, however it is polluted by household wastewater, chemical fertilizer from agricultural activities and waste from small factories. Low water quality leads to serious health and environmental problems, including causing bile duct cancer, according to the Thai Ministry of Public Health. Pollutants also boost the growth of toxic weeds that harm local ecosystems.

The Xe Bang Heang and Nam Kam Wetland Management Project's Nam Kam Basin Working Group has joined forces with local authorities and environmental officers from Kasetsart University to propose solutions for treating polluted water and preventing additional pollution of the reservoir.

Water quality is now being closely monitored by the Sakon Nakhon Municipality Pollution Control Department and environmental officers from Kasetsart University. Sakon Nakhon Municipality, Sakon Nakhon Office of Environment and Sakon Nakhon Office of Fisheries have constructed two additional water treatment plants and developed an improved treatment system which removes sludge and adds oxygen to the water. New drainage pipes have also been installed across built-up areas to prevent polluted water reaching the reservoir.

The Xe Bang Hieng and Nam Kam Wetland Management Project has been active since 2014 under the Mekong Integrated Water Resource Management Project. The project aims to reinforce collaboration between Lao PDR and Thailand on water resources management.

The project is raising local awareness of water management issues by creating river basin committees and platforms in 15 pilot areas in the Nam Kam Basin, with data gathered

through the committees being used to develop a Community Water Resource Management Plan.

CAPTION: Water quality of the Nong Han Wetland in Nam Kan has reached critical conditions, local water groups say. (file photo)

