

CONTAMINATION OF TOXIC SUBSTANCES IN THE THA CHIN ESTUARY, THAILAND

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The lower Tha Chin River receives considerable amounts of wastes from industrial sites and urban centers located along the riverbanks. Thus, the river is at high risk with pollutants discharged from such human activities. Water quality in the lower part of the river has been reported to be degraded and the levels of parameters concerned have been lower than the Surface Water Quality Standard and its Classification. This study was carried out in order to assess the status of oil- and non-oil contamination in the Tha Chin estuary. In general, chronic petroleum contamination was found to occur at all sites along the Tha Chin estuary. Total PAH concentrations in surface sediments from the estuary were found higher than those reported in previous study. Levels of POPs in surface sediments were lower than values previously reported. Concentrations of POPs in mussel tissues were within acceptable safety limits. Certain heavy metals were found to have higher concentrations than those of the uncontaminated estuarine sediments. However, pollutant levels found in the Tha Chin estuary were still low when compared to those of the polluted estuaries of the world.