



Municipal Canal Southern China

Description of Problem:

A city in southeastern China (pop. 6 million) uses a system of over 80 kilometers of canals to collect sewage, commercial wastewater and stormwater and discharge it into a major river. These highly polluted canals pose a serious health risk to the city's inhabitants and a threat to the communities dependent on the fisheries of the downstream estuaries. This unfortunate situation is typical of many developing world cities.



case study



A 600-meter canal, considered to be among the worst sections of canal in the city, receives ~750,000 gallons per day of untreated domestic sewage and stormwater runoff. It had a particularly severe problem with odors and floating solids, creating an unpleasant environment for the adjacent Buddhist temple, elementary school, and many residential apartment buildings. The municipal government found it to be prohibitively expensive to re-pipe this section of the city in order to send the sewage to a remote wastewater treatment facility and thus was looking for a mechanism to treat waste within the canal itself.