Shanghai:
from ‘Black and Stink’ to clean Suzhou Creek

Peter JMKerssens (Deltares, the Netherlands)
Chen Meifa (Shanghai Water Authority)

Summary

Suzhou Creek flows through Shanghai, one of the world’s largest megacities. During the 20th century, the creek fell victim to rapid urbanisation, swallowing most of the city’s waste. In 1996 the ‘Economic and Social Development Plan for Shanghai’ was adopted, in which the rehabilitation of the creek formed an important component. Due to this 12-year plan to clean up the waterway, Suzhou Creek is no longer an embarrassing, stinky black river.

With a number of selected ‘no-regret’ type of projects, such as flushing, environmental dredging, re-aeration, and interception of wastewater, the Shanghai Municipal Government has been very successful in cleaning up Suzhou Creek.

Furthermore, measures were taken such as elimination of wastewater disposal, wastewater treatment, the relocation of solid waste processing wharves and embankment reconstruction. These different projects, planned in an integrated manner, substantially improved the water quality.

One of the major factors contributing to the success of the Suzhou Creek rehabilitation project has been the institutional arrangements of the project and particularly the willingness of the various relevant parties to cooperate. The formation of the Shanghai Water Authority from the bureaus of Water Resources, and parts of the Environmental Protection Bureau and the bureau of Urban Construction has strengthened the institutional arrangements.

The Shanghai Municipal Government has set a good example of cooperation in the field of water resources and coastal management, and effective decision making in order to enable implementation of such major projects in a relatively short time frame.
Output of the Decision Support System: Combined tidal and upland flow flushing scenarios of the Suzhou Creek in relation to the water infrastructure of the entire Shanghai city.

Renewal of Suzhou Creek embankment and flood wall. (photo: Peter Kerssens)