

For release  
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## SHING MUN RIVER SLATED TO BREATHE AGAIN

Residents of Shatin plagued by odors from the Shing Mun river could experience relief in just a few months, thanks to research being conducted by the Hong Kong University of Science and Technology.

In the past, the Shing Mun river, one of Hong Kong's largest, was polluted by large volumes of domestic wastewater. The Environmental Protection Department worked to reduce possible sources of discharge, and as a result the river water quality improved. However, odor from the river remains a problem.

Supported by the Shatin District Board, a research team from HKUST's Department of Civil and Structural Engineering hopes to solve the odor problem by aerating the river water using a convective aeration system.

"Odor emission from a river is usually caused by a deficit in the amount of oxygen dissolved in the water," says Dr Guanghao Chen, Assistant Professor of Civil and Structural Engineering and project team leader. "This lack of oxygen can eventually lead to an anaerobic situation in the sediment on the river bed. Under such conditions, sulfates will be reduced to hydrogen sulfide, which smells of rotten eggs, causing the nuisance."

Odor levels could be significantly reduced within six months of starting the treatment, says Dr Chen. "A convective aeration system is a cost-effective way to supply air to the water and also to bring the surface water, rich in dissolved oxygen, to the bottom layer, which is poor in oxygen."

Phase I of the project, involving a site survey and laboratory research, began in February this year and will be completed in August. Baseline information gathered during this phase will be used in phase II, which will focus on the implementation of the aeration system.

"River pollution has become an increasingly important issue in developing countries, especially China," says Dr Chen. "The expertise gained in this study will certainly improve our understanding of how to apply the aeration method to control odor problems in polluted rivers in developing countries."

Note to Editors:

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