

# Flood Mitigation Project for the Tamshui River Basin

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## ABSTRACT

The Tamshui River Basin is situated in northern Taiwan. Its major tributaries include Ta-Han River, Hsin-Tien River and Kee-Lung River. The basin area approximates 2,726Km<sup>2</sup>, of which 243Km<sup>2</sup> plains area lies below an elevation of 20m. The basin is well developed and heavily populated with a population of approximately 6.5 millions. Low-lying areas in the basin are susceptible to flooding due to unique topographic features of the basin. The government started the Greater Taipei Metropolitan Area Flood Control Project in the 1940's. Structural flood control facilities completed in place as of today include 68,100m of levees, 123 flood gates, 79 pump stations, 1 flood relief channel, and other drainage works and bridge opening improvements. Flood control in the Greater Taipei Area with a protection level of 200-yr flood has been achieved by 1996 except the Kee-Lung River basin above Nan-Hu Bridge. The project accomplishments have gone through the tropical storms of Typhoons Zeb and Babs in 1998, Typhoon Xangsane in 2000 and Typhoon Nari in 2001, and functioned well as intended.

Nevertheless, levee construction and drainage improvements in the upstream reach of the tributary of the Kee-Lung River, above Nan-Kang, where present flood protection level is about 10-yr flood and the area is flood-prone, are still in progress. The flood protection level for the Kee-Lung River Flood Control Project will be upgraded to 200-yr flood eventually. Flood control measures undertaken for this project include flood flow diversion, flood detention, river channel improvements and flood plain management. In addition, non-structural measures such as flood warning and alarm systems, watershed management, renewal planning for flood-prone urban areas, and enhancement of the public's awareness of disaster prevention should also be undertaken in order to mitigate flood damages and reduce casualties and property losses to a minimal extent.

**(Keywords: Tamshui River, Flood Mitigation, Levers, pumping station , Flood Diversion )**