

# Water and Sand Flux into Sea of the Yellow River under Water and Sand Diversion

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In history, the Yellow River nurtures the glorious Chinese civilization. It is respected as the “ancestor of the four large rivers” and praised as “the mother river of the China”. At the same time, the Yellow River is regarded as “the misery of the China” and considered as the most difficult and complex river to control in the world. Today the Yellow River is also one large river greatly influenced by the human activities in the world. It is always said that regulating rivers and watercourse before governing the country. The safety of the Yellow River, particularly the flood safety, is always the greatest thing for governing and developing the country. The great achievement has been seen by all after many years’ controlling the Yellow River. However, since nineties of 20 century, some new problems occurred, such as sharp reduction of flux into sea, dry riverway, worsened environment, etc. Rapidly shrinking riverbed and two-level perched stream are disadvantageous to flood safety especially. The new concepts and new practices are urgently needed to control the River.

Therefor the Yellow River Conservancy Committee of Ministry of Water Resources has continuously carried out water and sand diversion each year from 2002 to 2005. To timely research into the new issues produced after water and sand diversion, and in order to be helpful to deepen the understanding of rule for the Yellow River’s water and sand and provide reference and experience to the research for other large rivers, five basic characteristics of the Yellow River’s water and sand, such as lack of water, much of sand, different resources of water and sand, inconsistency between water and sand and frequentness of sink switching and route changing, are sum up. The Yellow River’s water and sand diversion is also reviewed.

Under water and sand diversion, which is a kind of new and more direct and stronger human activities, the variation of the water and sand flux into sea changes greatly in a short time. Year after year during 2002 to 2005 in Lijin station, discharge with the same water level increases and water level with the same discharge decreases. The carrying capacity of the channel enlarges and the channel is also dredged in Lijin section. All these are much advantageous to flood control and safety.