

TAIL BRANCH CHANNEL REGULATION OF IN-LAKE RIVER

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The tail of Yuanshui river is a crisscross network of waterways(Fig1). There are many complicated braided rivers in the waterway in which the flow condition for navigation is complex. The hydrologic condition of the braided river is influenced not only by Yuanshui River but also by Dongting Lake, Yangtze River and other water systems. Its special hydrologic condition, surroundings, and the threat that flood gives both sides of Yuanshui River make necessary to comprehensively harness it. The measure to harness it is typical and representative, especially the aspect to handle the relation between navigation and flood can be referred by similar projection.

And the end section of Yuanshui River is a main passage of both flood and navigation, so comprehensive harnessing is necessary. Some conclusion can be drawn by analyzing the typical characteristics about braids and discussing the measure to regulate channel.

1) This river section lies in the Dongting Lake, so the standard of flood control is high. For this aspect it is important to handle the relation between navigation and flood releasing rightly and to practise them as a whole. Only in this way can we attain a good comprehensive benefit. At the same time, to harness riverway is the basis to harness channel. Only a solid river regime can lead to a stable channel

2) According to characteristics of braids in the tail of Yuanshui River and the request of flood controlling, it is felicitous to adopt a comprehensive regulation such as dredging and cutting-off. In this section, for the mild slope and low current velocity, to cut-off is a best way, which has little effect on the river regime of both upper and below reach, to raise the ability of flow discharge, and to shorten the navigational distance, so it is a reasonable measure to regulate the rail of Yuanshui river(Fig 2).

3) As for the aspect of dredge-cut based on the narrow course dredged artificially for flood control, it should be stationed along the waterway, because it can avoid ships of taking the ground and provide a convenient construction condition.

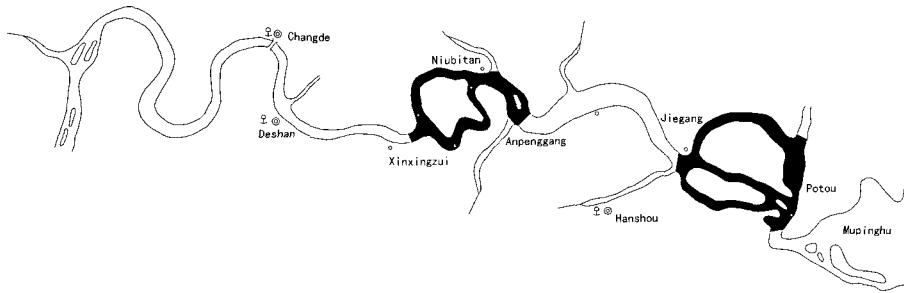


Fig.1 The situation map of the tail of Yuanshui River and the position where project is actualized

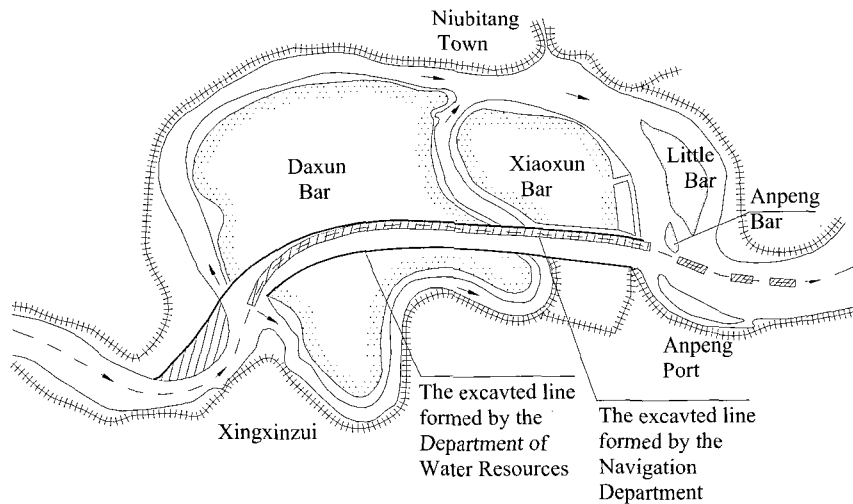


Fig.2 The arrangement of channel regulation and the form of Xinxingzhui-Anpenggang braid of Yuanshui River

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