

The investigation and analysis of the environmental condition of Yuqiao reservoir (WP4)

Institute of Urban Development
and Environmental Studies, CASS

2011.12 Beijing

The Profile of Yuqiao Reservoir

- Three phases of development
 - Built in 1959 for agricultural irrigation and flood control purposes.
 - In the 1980s, the reservoir was enlarged to store water diverted from the Luan River as a source of drinking water for the City of Tianjin.
 - Since 1999, water resource protection has been put forward on the agenda of Tujian municipality.

- Yuqiao Reservoir covers an area of 80 km² and is over 100 km in circumference.
 - The three major tributaries to the reservoir are the Lin, Sha, and Li He rivers. The Luan River diversion flows into the Li He in Hebei province.

- There are 160 villages belonged to 7 towns, with a combined population of about 137 ,000
 - Source: Administration office of the Yuqiao Reservoir, 2010

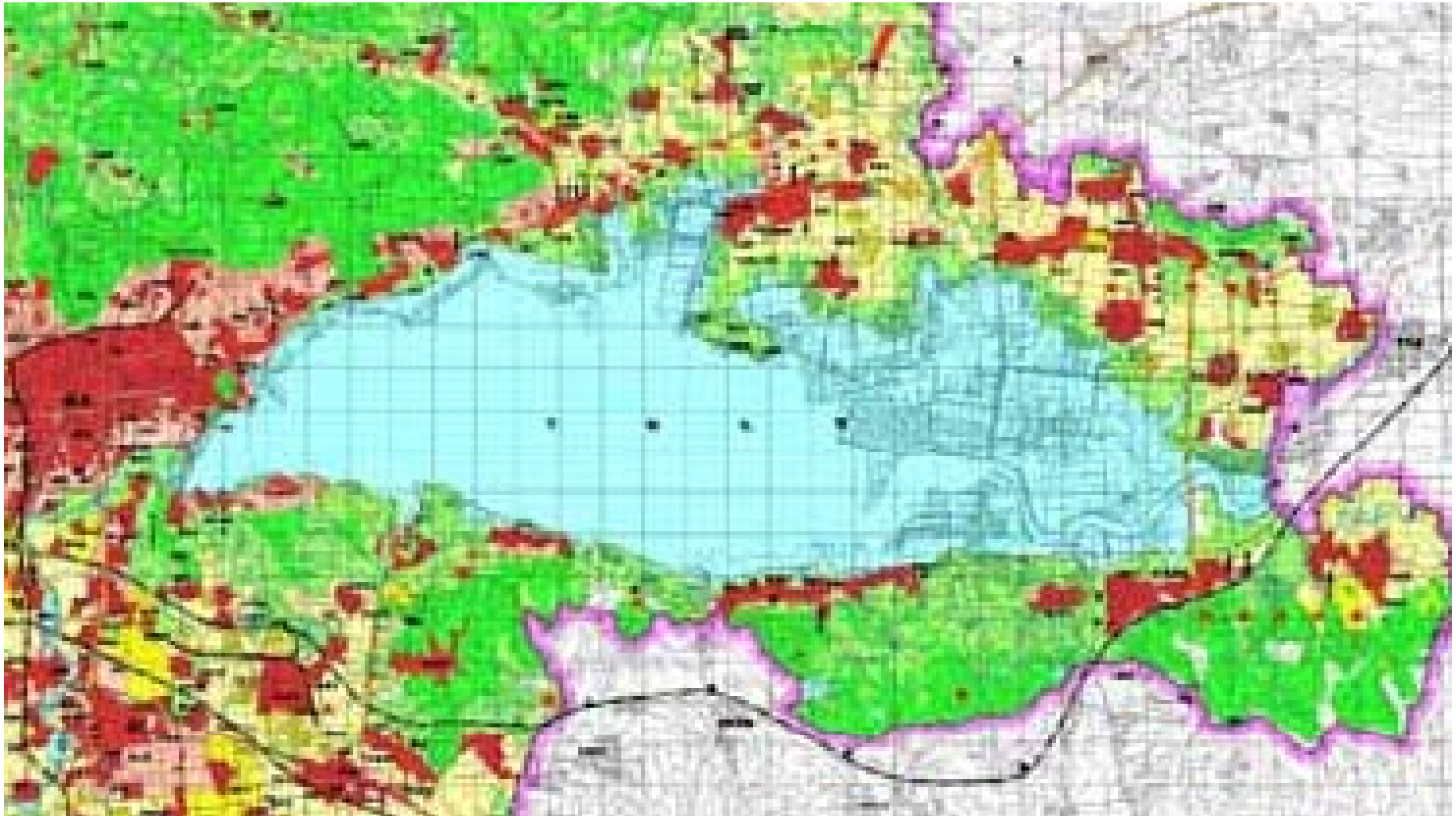


- Pollution sources around Yuqiao Reservoir up to an elevation of 28 m include about 137,000 people, 98,000 pigs, 17,000 buffaloes, 2,000 horses, 22,000 sheep, 585,000 chickens, 174,000 ducks, 24,000 geese.
- In addition, there are over 900 cottage industrial establishments , 9 hospitals, and 1,300 ponds.

Land Use

Type	Firstgrade protection Zone		Secondgrade protection Zone		Quasi protection Zone	
	Area (m2)	Percent (%)	Area (m2)	Percent (%)	Area (m2)	Percent (%)
Town	0	0.0	43,231	0.2	679,908	0.3
villages	3,451,472	2.4	3,560,749	14.5	29,997,879	12.3
Arable Land	36,908,432	25.9	12,218,670	78.3	105,258,915	43.3
Forestry	51,230	0.0	568,261	2.3	100,090,380	41.2
Reservoir	81,596,925	57.3	0	0.0	0	0.0
Fish pond	13,613,713	9.6	852,453	3.5	3,582	0.0
canal	5,521,233	3.9	135,456	0.6	2,075,002	0.9
Pond	1,003,149	0.7	44,250	0.2	361,009	0.1
Uncovered Rock	0	0.0	0	0.0	2,435,614	1.0
beach land	331,720	0.2	24,492	0.1	500,140	0.2
Other land for construction	43,522	0.0	98,772	0.4	1,505,901	0.6
Total	142,521,397	100.0	24,546,285	100.0	242,908,329	100.0

Land Use Plan (2010, Land Resources Sub-Bureau of Ji County)



- Yuqiao Reservoir is designated as Class III surface water, suitable for public water supply with conventional treatment, fish preservation, and swimming.

Ministry of Environmental Protection:

Water quality of Yuqiao Reservoir reaches class III, June 2011

- **Involving communities in environmental improvements increases the sustainability.**

- A community participation and self-management booklet should be prepared by villagers under the guidance of the social specialist at the project preparatory or implementation stage.

- Although the Yuqiao Reservoir has been able to generally attain class III standards for its water supply, efforts need to be made to sustain the standards through crossborder water resource management.

- Further sustainability of the project would highly depend on the need for continued environment protection around the reservoir.
 - These involve tree planting, fish rearing, village improvements, harvesting overgrown water plants, and rehabilitating tributaries.

The End

- Thanks.
- Questions?