

NBS Good Practices from Chinese government

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Water Dispatching in the Pearl River during Low Water Period

1. Background

Since 2000, the dry season of the Pearl River Basin has been affected by many factors, such as low water, river cutting and increasing water supply demand. As a result, the saltwater tide in the Pearl River Estuary has intensified retrospectively, and the affected areas have expanded from Panyu, Dongguan, Zhongshan, Xinhui and Zhuhai to Guangzhou and South China Sea. The impact has been expanding from agriculture to industrial and domestic water, and has seriously affected the lives and social stability of 15 million people, including Macao and Zhuhai.

2. Implementation time

From 2005 to 2019, the Ministry of Water Resources organized the Pearl River Water Conservancy Commission to conduct 15 consecutive water dispatches in dry season (October to February of the following year). By dispatching the upstream reservoirs to store water ahead of time and increasing the discharge of reservoirs in the dry season to suppress the upstream saltwater tide, the safety of water supply in the Pearl River Estuary, especially in Zhuhai, Macao has been ensured.

3. Implementation stage

Until now, the water dispatch in the dry season of the Pearl River has been implemented for 15 consecutive years. The dispatching scheme and ideas are mature, and will continue to be implemented in the future to ensure the safety of water supply in the Pearl River Estuary.

4. Case implementation related parties

It involves the Ministry of Water Resources of the People's Republic of China, Pearl River Water Resources Commission, Water Resources Department of Guangdong Province Water Resources Department of Guangxi Autonomous Region, Macao Autonomous Region Marine and Water Bureau, China Southern Power Grid Company and China Datang Corporation.

5. Beneficiary

Guangdong Province, Macao Special Administrative Region.

6. Project level

National Level.

7. Mitigation and adaptation to the effects of climate change

Statistic shows that during 15 water dispatches in the dry season of the Pearl River (from January 2005 to February 28, 2019), Macau and Zhuhai collected 1.014 billion cubic meters of water from river, of which 414 million cubic meters of high-quality raw water have been supplied to Macau. Through the implementation of water dispatch in the dry season of the Pearl River, the impact of saltwater upstream is effectively reduced, and the water supply safety in the Pearl River Estuary, especially in Macao and Zhuhai, is guaranteed.