PROJECT SHEET

Yangtze-to-Huaihe Water Diversion

2025

ABOUT THIS PROJECT:

Market Segment:
General Construction

Owner/Developer:
Anhui Provincial Water Resources Authority

Products Used:
Xypex Concentrate

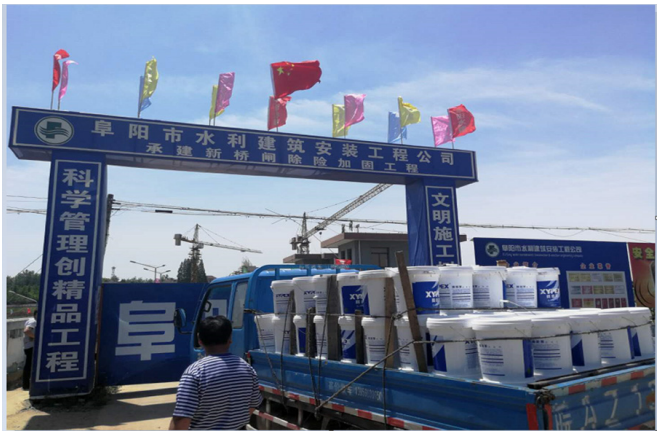
Location:
Anhui Province, China

General Contractor:
Multiple regional civil and hydraulic contractors

Engineer:
Anhui Hydro & Power Design Institute
Anhui Jiaokan Survey & Investigation Institute

The Yangtze-to-Huaihe Water Diversion Project (YHWD) is a large-scale inter-basin water conservancy program designed to transfer water from the Yangtze River system northward to support urban and rural water supply, inland navigation, irrigation replenishment, and ecological improvement across Anhui Province.

The project corridor is commonly described as three interconnected sections—Yangtze-to-Chaohu Diversion, Jianghuai Connection, and Northward Transfer—and includes numerous geographically dispersed hydraulic structures such as ship locks, sluice gates, pumping stations, and water diversion nodes.



Given the long-term exposure of these structures to aggressive water environments and fluctuating service conditions, durability and service life were key technical considerations. Xypex was selected based on its established performance history in Anhui Province, where it has been widely used in water conservancy and navigation structures.

Prior successful applications—including Yingshang Ship Lock, Fuyang Ship Lock, Quanjiao Jinji Gate, and Wuhu Double-Line Ship Lock—provided both design teams and owners with confidence in the system's durability and constructability.

The waterproofing approach for YHWD focused on the use of Xypex Concentrate as a surface-applied penetrating crystalline treatment, intended not only to reduce water ingress but also to enhance the long-term durability of hydraulic concrete.

The system was expected to improve resistance to carbonation, support strength development, reduce deterioration caused by poor or aggressive water quality, and contribute to extended service life of critical structures.

Execution quality was a defining factor across sites. Due to strict appearance requirements and strong owner oversight, on-site mock-ups were required for review and approval.

Substrate preparation—specifically grinding and thorough surface cleaning—was emphasized as a critical control point prior to application. Xypex Concentrate was applied in a two-coat sequence, with curing managed in accordance with site-specific conditions and supervision requirements.

The project footprint spans multiple major navigation and water control structures, including the Dongfeihe Double-Line Ship Lock (completion acceptance achieved), Caichao Diversion Nodes (01/02), Baishan Ship Lock, Zhaohe Ship Lock, XinQiao Gate expansion, and the Tuohui River Ship Lock. In a competitive environment where multiple waterproofing systems—including polyurea, epoxy coatings, impregnation treatments, and domestic crystalline products—were evaluated in parallel, disciplined execution and surface preparation proved to be decisive in achieving both performance and appearance expectations.