BALFOUR BEATTY ISLINGTON PUMP STATION

Temporary dewatering for the construction of a pumping station as part of a flood defence system

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Ejector dewatering in low permeable silty sand ground conditions

Islington Pumping Station was part of a critical infrastructure project for flood defence located on the banks of the River Great Ouse near Kings Lynn, Norfolk.

The use of 22no ejector wells, spaced at 5-meter centres and reaching depths of up to 15 meters was chosen to control porewater pressures within low permeability sandy silt and fine sand alluvium deposits.

The integration of twin-pipe ejectors connected to a supply and return main, and pumped using 415V high head pumps and inspection tank system, ensured efficient and effective groundwater management.



Objective

The dewatering objective was to reduce the porewater pressures and groundwater levels temporarily below final excavation levels to allow the construction of the Islington Pump Station.







Solution

An array of ejector wells was installed to accommodate the variable low permeable ground conditions and the close proximity of the River Ouse. A conceptual <u>dewatering design</u> was developed and refined on a site observational basis.

Services	<u>Ejector Dewatering</u>
Location	River Great Ouse, Kings Lynn, Norfolk
Industry	Construction
Excavation	11m below ground level



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