

Upper Thurne Integrated Drainage Project

January 2025

About the project

The Broads Internal Drainage Board are pleased to announce that the construction contract to deliver the first four replacement pumping stations at Martham, Horsey, Potter Heigham and St Benets (Package 1) as part of the Upper Thurne Integrated Drainage Project has been awarded to BAM Nuttall Ltd (BAM).

This contract forms part of a broader package of works to replace thirteen pumping stations within the River Thurne catchment. The remaining nine stations (Packages 2 and 3) are located at Brograve, Stubb, Catfield, Horse Fen, Heigham Holmes, Repps Staithe, Somerton North, Somerton South, and Thurne.

BAM have extensive experience delivering significant flood defence and water level management projects across the Norfolk and Suffolk Broads, most recently completing the construction of a new Archimedes screw pumping station at Norton, Suffolk, on behalf of the Waveney, Lower Yare and Lothingland Internal Drainage Board.

What will we be doing?

The replacement pumping stations will be constructed from steel sheet piles driven in to the local crag (hard geological layer beneath the softer peat / clay deposits). These form a wet well housing the new Pentair suspended bowl fish friendly pumps and secondary non-return valves. The intake of the wet well will be fitted with trash screens to protect the pumps from debris.

The pumps will discharge through the existing flood bank via new below ground pipework with precast concrete outfall structures

Above: Cross section through a two pump pumping station with manual raked trash screen showing wet well, pumps, discharge pipework and outfall structure.

featuring lightweight flap valves to prevent reverse flow from the river.

The pumping stations have been designed to be as fish friendly as possible by avoiding sharp bends in pipework, utilising fish friendly pumps and valves and discharging through a submerged outfall.

A separate control building will house the control systems including remote control and monitoring telemetry system allowing improved control of levels, data analysis and fault finding.

The new pumps will operate over a greater range of flows, with increased efficiency, maintaining stable water levels within the catchments and offering resilience to climate change through increased pump capacity.

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Why are we doing this work?

The existing pumping stations were mostly built in the 1950's to replace historic wind pumps. These replacement stations were typically steam or diesel driven that were later upgraded to electrical pumps often within the same foundations / building.

Whilst ongoing repairs have sustained their operation for 70 years the pumping stations are now significantly beyond the end of their design lives and require replacement.

Without the pumping stations and drainage network, 6300 hectares of lowlands would be subject to permanent flooding, causing the loss of important designated habitat, arable land, and woodland as well as impacting homes, local communities, tourism and infrastructure.

When is this work happening?

The detailed design phase, completed in January 2025, was delivered by Jacobs UK Ltd on behalf of the Broads Internal Drainage Board. Construction design input was provided by BAM Nuttall Ltd and leading suppliers of highly efficient fish friendly pumps, mechanical / electrical plant and electronic control and monitoring systems specialists.

Construction of Package 1 will commence Feb / March 2025 with the initial phase

LEGEND: River Thurne Catchment Site of Special Scientific Interest Calthorpe Broad Ludham - Potter Heigham Priory Meadows, Hickling Shallam Dyke Marshes, Thurne Upper Thurne Broads and Marshes Winterton - Horsey Dunes Stalham Brograve Pump Eastfield Pump Stubb Mill Pump Catfield Pump Somerton North Pump Heigham Holmes Pump Somerton South Pumi Somerton Auxiliary Pump Potter Heigham Pump Martham Pump Horse Fen Pump, Repps Pump Thurne Pump St Benets Pump 5,000 1,250 2,500 Contains OS data © Crown Copyright and database Metres

comprising environmental mitigation and surveys, construction / improvement of access routes and creation of the contractors site compounds adjacent to the new pumping stations.

Package 1 construction is programmed to be completed Spring 2026. Construction of the Package 2 and 3 pumping stations will follow from 2026-2028.

The Broads Internal Drainage Board have worked closely with landowners and key stakeholders to ensure the designs consider current and future needs with resilience and adaptability to climate change and future land use over the 50 year design life of the new pumping stations.

How can you get involved or get in touch?

This information is to let you know about the vital work we are doing in your community. We are happy to come along to community groups and residential associations to explain more about the work.

Please contact us at info@wlma.org.uk, if you would like to discuss in the project in more detail or you would like to be kept up to date with any further developments.







