

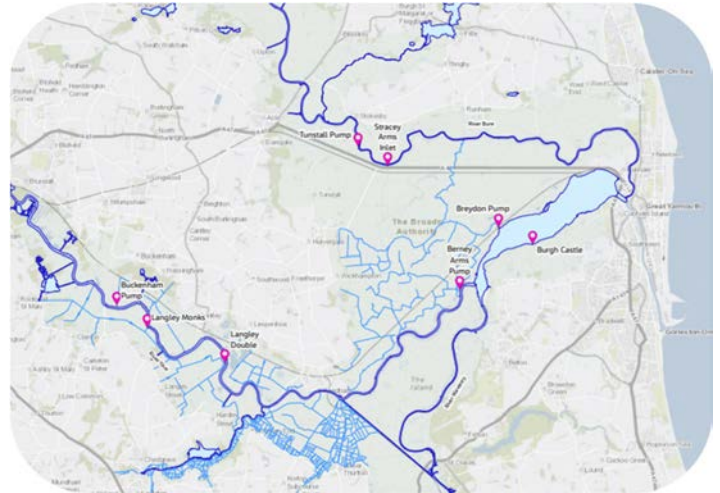
## About the Project

The River Yare Water Level Management Improvements project is developing a business case looking at six sites within the River Yare catchment. The project will be funded by the government and is seeking partnership funding contributions from beneficiaries such as Network Rail, Department of Education and National Highways.

## Where is the work happening

We are investigating the options for the following sites:

- Berney Arms Pumping Station,
- Breydon Pumping Station,
- Buckenham Pumping Station,
- Langley Double Pumping Station,
- Langley Monks Pumping Station,
- Stracey Inlet and potential water transfer from Tunstall Pumping Station to Halvergate Marshes.



## Why are we doing this work?



Many of the pumping stations were built in the mid twentieth century to replace wind pumps. Whilst ongoing repairs have sustained operations for the past 70 years these pumping stations have significantly exceeded their design life and need replacing.

Failure of the current pumping system would result in a breach of statutory environmental obligations to manage water levels within designated, functionally linked and priority habitat, resulting in the uncontrolled flooding of railway infrastructure, property, agricultural land, national and local transport networks, and utility infrastructure.



Buckenham Pumping Station



Stracey Inlet from River Yare discharges into Stracey Mill outlet channel



Langley Double redundant slip ring motor pump

## Project objectives:

- Legal compliance with Water Level Management Plans and having the ability to enhance water level management during flood and drought conditions; resulting in the protection of designated, functionally linked and priority habitat supporting nature conservation and agricultural objectives within each catchment.
- The low-lying topography, with the vast majority of the land at or below sea level, and the perched river system means a gravity drainage system is not possible. Fluvial flood risk and tidal inundation is managed by the Environment Agency maintained flood embankments. Without the ability to pump water, the catchments would be subject to permanent flooding. The pumping stations work in combination with the Environment Agency flood defences to manage pluvial and fluvial flood risk providing flood risk management benefits (including people and property, railway infrastructure, A47 and National Grid assets).
- Compliance with the Fish and Eel Regulations.
- Achieve enhanced water level management through the use of Variable Speed Drives allowing a broad range of flows and the ability to achieve a steady upstream water level offering water quality and biodiversity benefits.
- Increased capacity to better cope with overtopping events and reduce the impact to the freshwater habitat.
- Ability to meet the water management needs of the catchments, both present day and in the future as climate change occurs. The new pumps include a 50% increase in duty capacity following current predictions on climate change for intense rainfall events.
- Minimises carbon footprint during construction, operation, and maintenance. Selecting technology, which provides the most efficient pumping arrangement.
- Incorporate renewable energy sources to minimise whole life carbon and contribute towards achieving Carbon Net Zero.
- Sustaining water level management enabling continued access to recreational attractions: Wherryman's Way, Berney Marshes and Breydon Water, Buckenham Marshes, fishing clubs, Hardley Mill, and Stracey Arms Mill Shop and Tea Rooms.



Berney Arms Pumping Station



Langley Monks intake channel

## When is the work happening

The business case is scheduled to be completed in April 2025. The business case will be submitted to the Environment Agency for assurance. Following assurance and securing funding the next phase of the project will be the detailed design phase, which includes site/ground investigation and obtaining permissions and consents.

Subject to securing the required funding, construction works are provisionally scheduled to take place between February 2027 to August 2029.

## CONTACT US

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