

March 2024

The following Catchment Specific Newsletters are available in this document:

Barsham Pumping Station and Culvert Replacement

Beccles and Worlingham Pumping Station

Belton and Caldecott Pumping Station

Burgh St Peter and Wheatacre Pumping Station

Short Dam Pumping Station



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Vaveney, Lower Yare and Lothingland Drainage Board

# **Barsham Pumping Station** and Culvert Replacement

March 2024

#### About the Project

The Lower Waveney Water Level Management Improvements Project is proposing to construct five replacement pumping stations within the Waveney catchment.

The project will be funded by the government. In order to secure the funding a business case is submitted to the Environment Agency for assurance. Following assurance, the detailed design phase of the project will commence. The Regional Flood and Coastal Committee has agreed to fund the detailed design phase of the project. The main source of funding for the construction phase is the Environmental Statutory Allowance and currently there is a large shortfall. The project team are working hard to secure the additional funding required to deliver the construction phase.

# Where is this work happening?



Barsham Beck

Barsham Pumping Station is situated approximately 1 mile to the east of Beccles and located on the right hand bank of the River Waveney | National Grid Reference: TM 40542 90842 | What3words: shrug.casted.darts

The pumping station manages water level within the Barsham catchment which consists of 219 hectares of land located to the east and west of Barsham Beck which gravity discharges into the River Waveney. Water is transferred under the embanked Barsham Beck via a pipe.



The River Waveney at Barsham

## When is this work happening?

The next phase of the project is to undertake Site and Ground Investigation used to inform the detailed design. Subject to obtaining assurance and funding the detailed design period is between April 2024 and August 2025.

Construction works are provisionally expected to take place between February 2026 to July 2028.

## What will we be doing?

We will be constructing a fish friendly pumping station to manage water levels within the Barsham catchment.

The new pumps will be able to operate over a greater range of flows, with increased efficiency, maintaining stable water levels within the catchment and offering resilience to climate change with increased capacity. The culvert conveying water under Barsham Beck is in a poor condition and will be replaced as part of the project.

Water Management Alliance, Pierpoint House, 28 Horsley's Fields, King's Lynn, Norfolk,

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Come and find out more...

This factsheet is to let you know about the vital work we are doing and invite you to attend a drop in event where you will be able to speak to members of the Delivery Team.



**NVITATION** 

The drop-in event is being held at **Suffolk Wildlife Trust, Carlton Marshes Reserve, Burnt Hill Lane, Carlton Colville, Lowestoft, NR33 8HU** on **29th April 2024** between **11.00** – **16.00**. *We will be located at the back of the café.* 

We look forward to seeing there!

#### Why are we doing this work?

It is not known when Barsham Pumping Station was constructed. However the appearance and general condition suggests it was built around the mid twentieth century. The pumping station is beyond the end of its design life. Refurbishment is not possible and replacement is the least cost option.

The majority of the Barsham catchment is at or below sea level and cannot function as a gravity drained catchment. In order to manage water levels and flood risk, water has to be pumped into the embanked River Waveney.

The management of water levels is defined by the Water Level Management Plan (WLMP), which provides a means of balancing and integrating the water level requirements of a range of activities including agriculture, flood risk management and conservation. The WLMP set out the prescribed water levels required to maintain Favourable Conservation Status of the habitats and species associated with The Broads Special Area of Conservation (SAC), Broadland Special Protection Area (SPA) and Broadland Ramsar sites. The principal function of the pumping station and ancillary assets fulfils statutory obligations to maintain prescribed water levels.

Without the existing pumping station, culvert and drainage network, the catchment would be subject to permanent flooding, causing the loss of important habitat, agricultural land as well as impacting people and property.



**Barsham Pumping Station** 



Barsham Culvert in poor condition

#### How will this benefit you?

The pumping station and culvert forms an integral part of the flood defence infrastructure protecting priority habitat, people and property, utility infrastructure and rural roads.

The replacement pumping station will have increased capacity and resilience to climate change.

The increased efficiency of the pumps and the use of renewable technology will help mitigate the impact of increasing energy costs.



Management Alliance

Catchment Map: https://www.wlma.org.uk/uploads/ WLYLIDB\_CMT267P-Barsham\_1.pdf Waveney, Lower Yare and Lothingland Drainage Board

# **Beccles and Worlingham Consolidating Catchments**

March 2024

### **About the Project**

The Lower Waveney Water Level Management Improvements Project is proposing to construct five replacement pumping stations within the Waveney catchment.

The project will be funded by the government. In order to secure the funding a business case is submitted to the Environment Agency for assurance. Following assurance, the detailed design phase of the project will commence. The Regional Flood and Coastal Committee has agreed to fund the detailed design phase of the project. The main source of funding for the construction phase is the Environmental Statutory Allowance and currently there is a large shortfall. The project team are working hard to secure the additional funding required to deliver the construction phase.

### Where is this work happening?

Beccles Pumping Station is situated approximately 2 miles to the north-east of Beccles on the right bank of the River Waveney. It is owned and operated by the Beccles Fenland Charity Trust.

National Grid Reference: TM 43741 92714 | What3words: readings.bravo.imprinted

The pumping station manages water levels within the 378 hectares of land located within the <u>Remainder (Worlingham)</u> catchment.

Worlingham Pumping Station is situated approximately 2 miles to the east of Beccles on the right hand bank of the River Waveney. It is owned and operated by the Waveney, Lower Yare & Lothingland Internal Drainage Board.

National Grid Reference: TM 45783 91184 | What3words: bakers.officials.noise

The pumping station manages water levels within the 331 hectares of land located within the <u>Worlingham</u> catchment.

#### What will we be doing?

We will be consolidating the <u>Remainder (Worlingham)</u> and <u>Worlingham</u> catchments and managing water levels from a new pumping station constructed approximately 200m to the south-east of the Beccles Pumping Station.

Currently the catchments are separated by the Worlingham Wall causeway. A new culvert will be constructed to convey water from the Worlingham catchment to the new pumping station. A number of new water control structures will be required to ensure the current water level regime can be maintained. The new pumping station will be owned and operated by the Waveney, Lower Yare & Lothingland Internal Drainage Board.

The detailed design will include producing a hydraulic model to confirm consolidating catchments will not impact the current water level management regime.

The new pumps will be fish friendly and are able to operate over a greater range of flows, with increased efficiency, maintaining stable water levels within the catchment and offering resilience to climate change with increased capacity.

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Worlingham Catchment





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 Come and find out more...

 This factsheet is to let you know about the vital work we are doing and invite you to attend a drop in event where you will be able to speak to members of the Delivery Team.

 The drop-in event is being held at Suffolk Wildlife Trust, Carlton Marshes

 Reserve, Burnt Hill Lane, Carlton Colville, Lowestoft, NR33 8HU on 29th April

 2024 between 11.00 – 16.00. We will be located at the back of the café.

 We look forward to seeing there!

#### When is this work happening?

The next phase of the project is to undertake Site and Ground Investigation used to inform the detailed design. Subject to obtaining assurance and funding the detailed design period is between April 2024 and August 2025.

Construction works are provisionally expected to take place between February 2027 to August 2028.

### Why are we doing this work?

Beccles Pumping Station is likely to have been constructed in the mid to late nineteenth century and is beyond the end of its design life and requires replacement.

It is not known when Worlingham Pumping Station was constructed. However the appearance and general condition suggests it was built around the mid twentieth century. The pumping station is beyond the end of its design life. Refurbishment is not possible and replacement is the least cost option.

The majority of the catchment is at or below sea level and cannot function as a gravity drained catchment. In order to manage water levels and flood risk water has to be pumped into the embanked River Waveney.



Worlingham Pumping Station

The management of water levels is defined by the Water Level Management Plan (WLMP), which provides a



Beccles Pumping Station © Glen Denny (cc-by-sa-2.0)

means of balancing and integrating the water level requirements of a range of activities including agriculture, flood risk management and conservation. The WLMP set out the prescribed water levels required to maintain Favourable Conservation Status of the habitats and species associated with The Broads Special Area of Conservation (SAC), Broadland Special Protection Area (SPA) and Broadland Ramsar sites. The principal function of the pumping station and ancillary assets fulfils statutory obligations to maintain prescribed water levels.

Without the existing pumping stations and drainage network, the catchments would be subject to permanent flooding, causing the loss of important habitat, agricultural land as well as impacting people and property.

## How will this benefit you?

The pumping stations form an integral part of the flood defence infrastructure protecting priority habitat, people and property, rail and utility infrastructure, recreation facilities and major roads.

The replacement pumping station will have increased capacity and resilience to climate change.

The increased efficiency of the pumps and the use of renewable technology will help mitigate the impact of increasing energy costs.



Management Alliance Catchment Maps: https://www.wlma.org.uk/uploads/ WLYLIDB\_CMT271P-Worlingham.pdf & WLYLIDB\_CMT270G-Remainder\_(Worlingham).pdf Vaveney, Lower Yare and Lothingland Drainage Board

# **Belton and Caldecott Consolidating Catchments**

March 2024



#### About the Project

The Lower Waveney Water Level Management Improvements Project is proposing to construct five replacement pumping stations within the Waveney catchment.

The project will be funded by the government. In order to secure the funding a business case is submitted to the Environment Agency for assurance. Following assurance, the detailed design phase of the project will commence. The Regional Flood and Coastal Committee has agreed to fund the detailed design phase of the project. The main source of funding for the construction phase is the Environmental Statutory Allowance and currently there is a large shortfall. The project team are working hard to secure the additional funding required to deliver the construction phase.

### Where is this work happening?

Watercourse in Belton catchment

Belton Pumping Station is situated approximately 0.5 miles to the north-west of Belton on the right bank of the River Waveney | National Grid Reference: TG 47231 03704 | What3words: peroxide.hampers.shoelaces

The pumping station manages water levels within the 184.09 hectares of land located within the Belton and General Belton catchments.

Caldecott Pumping Station is situated approximately 1 mile to the south-west of Belton on the right bank of the River Waveney | National Grid Reference: TG 46427 02106 | What3words: lifetimes.warmers.selection

The pumping station manages water levels within the 106.27 hectares of land located within the Caldecott catchment.

#### What will we be doing?

We will be consolidating the Belton, General Belton and Caldecott catchments and managing water levels from a new pumping station constructed approximately 30m to the south-west of the Belton Pumping Station.

The catchments are currently separated with water managed at a higher level within the Caldecott catchment. A new water control structure will be constructed to ensure the current water level regime can be maintained. It is anticipated that a culvert will require replacement and channel widening will be required to ensure water can be conveyed to the new pumping station.

The detailed design will include producing a hydraulic model to confirm consolidating catchments will not impact the current water level management regime and inform the improvements required to the watercourses.

The new pumps will be fish friendly and are able to operate over a greater range of flows, with increased efficiency, maintaining stable water levels within the catchment and offering resilience to climate change with increased capacity.

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 Come and find out more...

 This factsheet is to let you know about the vital work we are doing and invite you to attend a drop in event where you will be able to speak to members of the Delivery Team.

 The drop-in event is being held at Suffolk Wildlife Trust, Carlton Marshes

 Reserve, Burnt Hill Lane, Carlton Colville, Lowestoft, NR33 8HU on 29th April

 2024 between 11.00 – 16.00. We will be located at the back of the café.

 We look forward to seeing there!

#### When is this work happening?

The next phase of the project is to undertake Site and Ground Investigation used to inform the detailed design. Subject to obtaining assurance and funding the detailed design period is between April 2024 and August 2025.

Construction works are provisionally expected to take place between February 2027 to August 2028.

#### Why are we doing this work?

Belton Pumping Station was constructed in 1995 and it is not possible to refurbish the station to achieve the project objectives.

Caldecott drainage mill was built in 1844 and is beyond the end of its design life. Refurbishment is not possible and replacement is the least cost option.

The majority of the catchment is at or below sea level and cannot function as a gravity drained catchment. In order to manage water levels and flood risk water has to be pumped into the embanked River Waveney.

The management of water levels is defined by the Water Level Management Plan (WLMP), which provides a means of balancing and integrating the water level requirements of a range of activities including agriculture, flood risk management and conservation. The WLMP set out the prescribed water levels required to maintain Favourable Conservation Status of the habitats and species associated with The Broads Special Area of Conservation (SAC), Broadland Special Protection Area (SPA) and Broadland Ramsar sites. The principal function of the pumping station and ancillary assets fulfils statutory obligations to maintain prescribed water levels.

Without the existing pumping stations and drainage network, the catchment would be subject to permanent flooding, causing the loss of important habitat, agricultural land as well as impacting people and property.

#### How will this benefit you?



Belton catchment



Belton pumping station outfall into the River Waveney



Belton Pumping Station

The pumping stations form an integral part of the flood defence infrastructure protecting priority habitat, grazing marsh, people, property and minor roads.

The replacement pumping station will have increased capacity and resilience to climate change.

The increased efficiency of the pumps and the use of renewable technology will help mitigate the impact of increasing energy costs.



Management Alliance Catchment Maps: https://www.wlma.org.uk/uploads/ WLYLIDB\_CMT226P-Belton.pdf & WLYLIDB\_CMT227G-General\_Belton.pdf WLYLIDB\_CMT228P-Caldicott.pdf Naveney, Lower Yare and Lothingland Drainage Board

# **Burgh St Peter & Wheatacre Consolidating Catchments**

March 2024

#### About the Project

The Lower Waveney Water Level Management Improvements Project is proposing to construct five replacement pumping stations within the Waveney catchment.

The project will be funded by the government. In order to secure the funding a business case is submitted to the Environment Agency for assurance. Following assurance, the detailed design phase of the project will commence. The Regional Flood and Coastal Committee has agreed to fund the detailed design phase of the project. The main source of funding for the construction phase is the Environmental Statutory Allowance and currently there is a large shortfall. The project team are working hard to secure the additional funding required to deliver the construction phase.



Views of Burgh St Peter **Pumping Station** 



# Where is this work happening?

Burgh St Peter Pumping Station is situated approximately 2 miles to the east of Burgh St Peter on the left bank of the River Waveney. The Burgh St Peter Pumping Station is owned and operated by the Waveney, Lower Yare & Lothingland Internal Drainage Board.

National Grid Reference: TM 50009 94702 | What3words: motive.relishing.exhale

The pumping station manages water levels within the 238.93 hectares of land located within the Burgh St Peter catchment.

Wheatacre Pumping Station is situated approximately 1.5 miles to the north-east of Wheatacre on the left bank of the River Waveney. The Worlingham Pumping Station is owned and operated by the Waveney, Lower Yare & Lothingland Internal Drainage Board.

National Grid Reference: TM 47788 95938 | What3words: snipe.midwinter.bulk

The pumping station manages water levels within the 362.68 hectares of land located within the Wheatacre catchment.

Water Management Alliance, Pierpoint House, 28 Horsley's Fields, King's Lynn, Norfolk,

#### What will we be doing?

We will be consolidating the Burgh St Peter and Wheatacre catchments and managing water levels from a new pumping station constructed approximately 100m to the north-west of the Wheatacre Pumping Station.

The catchments are currently separated with water managed at a higher level within the Burgh St Peter catchment. A new tilting gate water control structure will be constructed to ensure the current water level regime can be maintained. It is anticipated that a number of culverts will require replacement and channel widening will be required to ensure water can be conveyed to the new pumping station.

The detailed design will include producing a hydraulic model to confirm consolidating catchments will not impact the current water level management regime and inform the improvements required to the watercourses.

The new pumps will be fish friendly and are able to operate over a greater range of flows, with increased efficiency, maintaining stable water levels within the catchment and offering resilience to climate change with increased capacity.

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#### When is this work happening?

The next phase of the project is to undertake Site and Ground Investigation used to inform the detailed design. Subject to obtaining assurance and funding the detailed design period is between April 2024 and August 2025.

Construction works are provisionally expected to take place between February 2027 to August 2028.

#### Why are we doing this work?

Burgh St Peter Pumping Station was constructed in late nineteenth century and is beyond the end of its design life.

The current Wheatacre Pumping Station was constructed around 1956. The pumping station is beyond the end of its design life. Refurbishment is not possible and replacement is the least cost option.



Wheatacre Pumping Station

The majority of the catchment is at or below sea level and cannot function as a gravity drained catchment. In order to manage water levels and flood risk water has to be pumped into the embanked River Waveney.

The management of water levels is defined by the Water Level Management Plan (WLMP), which provides a means of balancing and integrating the water level requirements of a range of activities including agriculture, flood risk management and conservation. The WLMP set out the prescribed water levels required to maintain Favourable Conservation Status of the habitats and species associated with The Broads Special Area of Conservation (SAC), Broadland Special Protection Area (SPA) and Broadland Ramsar sites. The principal function of the pumping station and ancillary assets fulfils statutory obligations to maintain prescribed water levels.

Without the existing pumping stations and drainage network, the catchment would be subject to permanent flooding, causing the loss of important habitat, agricultural land as well as impacting people and property.

#### How will this benefit you?

The pumping station forms an integral part of the flood defence infrastructure protecting priority habitat, grazing marsh and arable land, people and property, rail and utility infrastructure.

The replacement pumping station will have increased capacity and resilience to climate change.

The increased efficiency of the pumps and the use of renewable technology will help mitigate the impact of increasing energy costs.



Management Alliance Catchment Map: https://www.wlma.org.uk/uploads/ WLYLIDB\_CMT255P-Burgh\_St.\_Peter.pdf & WLYLIDB\_CMT254P-Wheatacre.pdf

# Short Dam Pumping Station

March 2024

#### **About the Project**

The Lower Waveney Water Level Management Improvements Project is proposing to construct five replacement pumping stations within the Waveney catchment.

The project will be funded by the government. In order to secure the funding a business case is submitted to the Environment Agency for assurance. Following assurance, the detailed design phase of the project will commence. The Regional Flood and Coastal Committee has agreed to fund the detailed design phase of the project. The main source of funding for the construction phase is the Environmental Statutory Allowance and currently there is a large shortfall. The project team are working hard to secure the additional funding required to deliver the construction phase.



Vaveney, Lower Yare

and Lothingland Drainage Board

Short Dam Pumping Station



Short Dam Catchment



Short Dam Catchment

#### Where is this work happening?

Short Dam Pumping Station is situated approximately 1.5 miles to the south-east of Burgh St Peter and located on the left bank of the River Waveney.

National Grid Reference: TM 48748 924429 | What3words: awkward.coiling.purifier

The pumping station manages water level within the 88 hectares of land located within the Short Dam catchment.

#### What will we be doing?

We will be constructing a fish friendly pumping station to manage water levels within the <u>Short Dam</u> catchment.

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

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 The drop-in event is being held at Suffolk Wildlife Trust, Carlton Marshes

 Reserve, Burnt Hill Lane, Carlton Colville, Lowestoft, NR33 8HU on 29th April

 2024 between 11.00 – 16.00. We will be located at the back of the café.

 We look forward to seeing there!

#### When is this work happening?

The next phase of the project is to undertake Site and Ground Investigation used to inform the detailed design. Subject to obtaining assurance and funding the detailed design period is between April 2024 and August 2025.

Construction works are provisionally expected to take place between February 2027 to August 2028.

#### Why are we doing this work?

The Short Dam Pumping Station was constructed in 1942 and is beyond the end of its design life and requires replacement.

The majority of the Short Dam catchment is at or below sea level and cannot function as a gravity drained catchment. In order to manage water levels and flood risk water has to be pumped into the embanked River Waveney.

The management of water levels is defined by the Water Level Management Plan (WLMP), which provides a means of balancing and integrating the water level requirements of a range of activities including agriculture, flood risk management and conservation. The WLMP set out the prescribed water levels required to maintain Favourable Conservation Status of the habitats and species associated with



Short Dam wet well in poor condition

The Broads Special Area of Conservation (SAC), Broadland Special Protection Area (SPA) and Broadland Ramsar sites. The principal function of the pumping station and ancillary assets fulfils statutory obligations to maintain prescribed water levels.

Without the existing pumping station, culvert and drainage network, the catchment would be subject to permanent flooding, causing the loss of important habitat, agricultural land as well as impacting people and property.

## How will this benefit you?

The pumping station forms an integral part of the flood defence infrastructure protecting priority habitat, non-residential property and utility infrastructure.

The replacement pumping station will have increased capacity and resilience to climate change.

The increased efficiency of the pumps and the use of renewable technology will help mitigate the impact of increasing energy costs.



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Catchment Map: https://www.wlma.org.uk/uploads/ WLYLIDB\_CMT257P-Short\_Dam.pdf