Lower Witham Flood Resilience Project

Newsletter 05
March 2025

Environment Agency

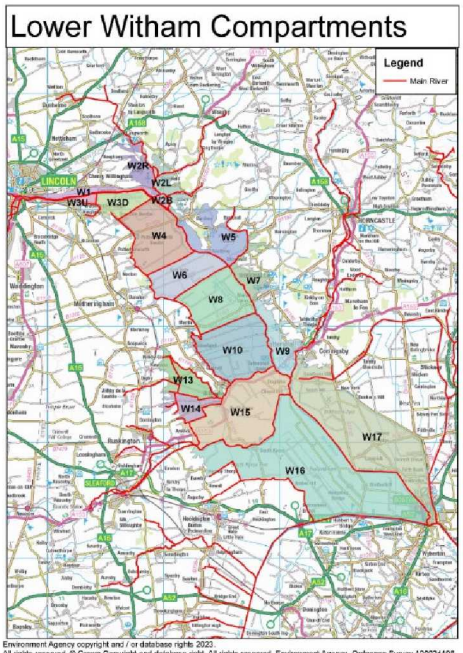
This newsletter is given to interested parties in the Lower Witham area. It provides an update on the development of a project to increase flood resilience in the Lower Witham Fens. If you wish to receive future copies of this newsletter or would like further information, please contact us at lowerwitham.floodresilience@environment-agency.gov.uk

Lower Witham Flood Resilience Project

The Lower River Witham is mostly a large area of drained marshland between Lincoln and Boston. Historic drainage infrastructure, including embanked channels and pumping stations has enabled highly productive arable land to be farmed and communities have established in the area.

Some of these embankments are now over 200 years old. The extent and frequency of flood incidents is increasing pressure on flood risk management and drainage infrastructure. This is putting the local community and economy at risk. Flooding in 2019, and again during Storms Babet and Henk in the winter of 2023/24, has highlighted the need to update the long-term strategy to manage flood risk in the area.

This project aims to improve the catchment's resilience to flood events and reduce the harm caused by flooding where possible.



Lower Witham Flood Resilience Project Phase One- Grand Sluice and embankments

Phase One of the Lower Witham Flood Resilience Project is focused on repairing and reinforcing critical flood defences and improving catchment flood resilience. This is whilst longer term strategies are planned. Grand Sluice in Boston and embankments along the River Witham and some of its tributaries are flood defences currently included in Phase One.

Grand Sluice

The project team including contractors Arup and Jacksons are currently planning the first phase of works for the Grand Sluice refurbishment. These preparatory works, planned to begin in May 2025, will ready the site for the main construction phase. At this stage, stop log grooves will be installed in each channel. These grooves will hold stop logs which will be used to create dry working areas.

The team are working to secure the relevant permissions. Heritage considerations are important for the proposed refurbishment due to the sluice's location on the River Witham, its grade II listed status, and its location in a conservation area.

How will we manage the Grand Sluice refurbishment works to prevent any increase in flood risk?

- We plan to carry out the works during typically drier times of the year with lower water flows, usually between April and October.
- We will closely monitor weather forecasts and river levels, and plan work accordingly.

Previous refurbishment works carried out at Grand Sluice in 2006.

What's coming up?

Our project team will be holding drop-in events at two locations:

Friday 9th May 2025, 12pm - 4pm at Fenside Community Centre, Taverner Road, Boston PE21 8NL

Wednesday 14th May 2025, 9am - 3pm at Boston Market, Boston, Lincolnshire PE21 6NF

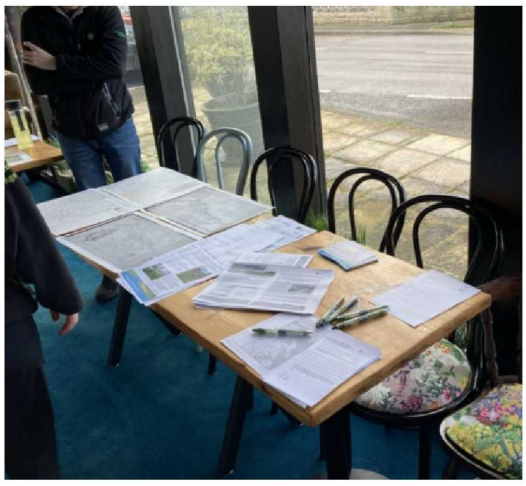
These drop-in events will provide an opportunity to speak to our project team about what we're doing and what the work will look like. The works have been planned in a way to minimise possible disruptions to daily life and there will be the opportunity to find out more about this.

Embankments

During January and February, the project team hosted drop-in events in communities.

The team visited both Chapel Hill and Tattershall. Around 25 residents attended to learn more about the project, ask questions, and raise any concerns. The events led to many productive conversations.

Environment Agency contractors have since finished removing trees from the embankment where the River Witham meets the Kyme Eau. The team have been working with local residents to offset the removal of some trees by identifying suitable spots for planting replacements.



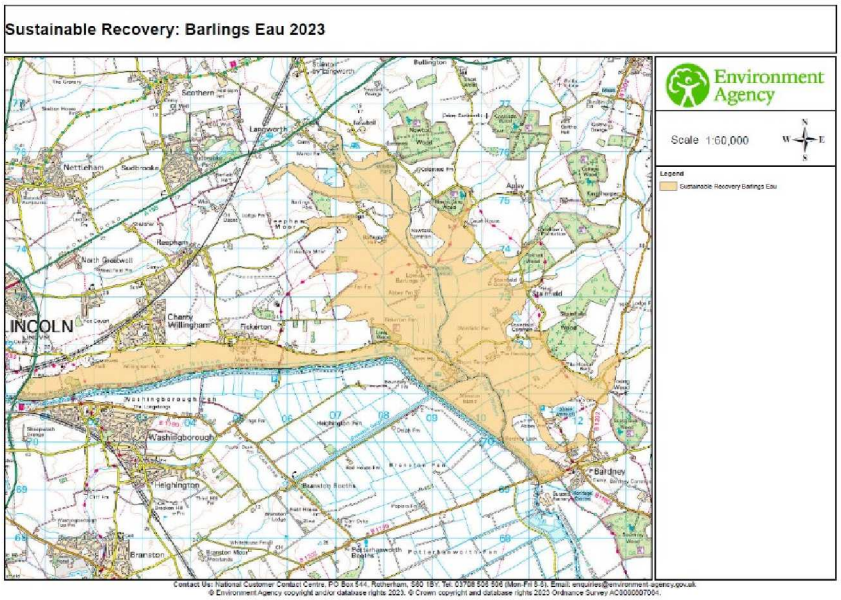
Drop-in event at Chapel Hill in January.

Lower Witham Sustainable Recovery Pilot project

We have recently visited the project area with our contractors, Arup, for a familiarisation tour.

After gaining first hand insights into the area, they have been assessing the shortlist of potential measures against specific criteria. Their analysis will help us to understand which measures may be technically viable, determine how well these could work well together to form a master plan for the area, and if they contribute towards achieving the project's goals.

This project is a Fens 2100+ pilot project. Fens 2100+ is developing a Fens-wide approach to managing flood risk in a way that balances the needs of people, the environment and agriculture, both now and in the future.



Lower Witham Sustainable Recovery Pilot project boundary.

Fens 2100+

Find out more about Fens 2100+ at the Fens2100+ Citizen Space page.

Fens Climate Change Risk Assessment

This is a newly published, first-of-its-kind climate change risk assessment specifically focused on the Fens. It has revealed the complex challenges that climate change poses to this vital landscape.

Some of the key messages of the report include:

- **Rising Sea Levels:** The Fens, being largely below sea level, face increased flood risks from the sea, rivers, groundwater, and surface water.
- **Agricultural Impact:** As one of the UK's most productive agricultural areas, the Fens are at risk of intensified flooding and severe droughts, which could disrupt food production and lead to significant economic losses.
- **Biodiversity Threats:** Climate change poses a threat to the region's biodiversity, with potential for irreversible losses if proactive measures are not taken.
- **Infrastructure Challenges:** The existing network of embankments, pumps, and barriers, essential for water management, faces significant challenges in maintaining performance amidst aging infrastructure and escalating climate pressures.

The Fens 2100+ team are using the report's findings to underpin their programme to create a long-term, Fens-wide flood resilience strategy. Whilst the Climate Change Risk Assessment highlights significant risks there is also the opportunity to design a more positive future that delivers for people, the environment and the economy. The Future Fens Integrated Adaption (FFIA) and Fens 2100+ are working towards this.

You can view and download the full report on the FFIA website. There is also a video that provides an overview of the key findings.

January floods

The period from late December 2024 to early January 2025 brought some very wet and windy weather, with some snowfall across upland areas of Lincolnshire. The heavy rain on 5th and 6th January led to significant flooding.

Worst hit areas in England included parts of Lincolnshire with a major incident declared. 30 to 50mm of rain fell very widely across Lincolnshire with the whole-month average rainfall falling in two days in some locations. On 5 January, several weather stations recorded their wettest January day on record including Coningsby in the Lower Witham (33.2mm, 60 years). The rain fell onto snow and near frozen ground, leading to very high levels of run off with little or no infiltration. River level gauges showed record levels were matched or exceeded. At Bardney levels in the River Witham matched the highest level, at 4.45mAOD. Despite the high flows there were no breaches on the Lower Witham.

Barlings Eau Tree and bushing works

The Short Ferry field team have recently carried out tree and bushing work in the Barlings Eau area. Removing trees and bushes can help to increase the resilience of flood embankments. Trees and bushes can inhibit grass growth by shading embankments. Maintaining good grass coverage on embankments is important to protect against erosion and prevent weakening. They can also attract burrowing animals that compromise bank stability and hinder necessary inspections.

Our area team has been working with local landowners to offset the removal of trees by identifying suitable spots for planting replacements.

Before and after tree removal along the Barlings Eau.

How resilient are you?

Are you prepared for future floods?

Although defences reduce the likelihood of flooding, the risk can never be removed entirely.

To begin to be more resilient take some practical steps to help reduce the impact of flooding to your home or business.

To find out if you are at risk, how to prepare, stay safe and sign up for (free) flood warnings visit Flooding - GOV.UK or call Floodline on **0345 988 1188**.

Contact us

Lowerwitham.Floodresilience@environment-agency.gov.uk

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