

# BFI Elected Members Forum

Minutes of the meeting held on 15 January 2024

## Contents

1. Apologies for absence and welcome	2
2. The current flooding within Broadland	2
3. Update on BFI progress and forward look	4
4. Any other business	7
5. Date of next meeting	7

## Present

Harry Blathwayt - in the Chair, Jan Davis-Broadland District Council, Emma Hampton- Norwich City Council, Matthew Shardlow- Broads Authority, Paul Wells - Great Yarmouth Borough Council.

## In attendance

Mareth Bassett- Environment Agency, Peter Doktor - Environment Agency, Kellie Fisher- Environment Agency, Catherine Harries- Environment Agency, David Kemp- Environment Agency, Tom Say- Environment Agency, Marie Pierre Tighe - Broads Authority, Kylie Moos - Broads Authority (minutes).

## 1. Apologies for absence and welcome

The Chair welcomed the return of Kellie Fisher (KF) to Broadland Futures Initiative (BFI).

Apologies: Richard Elliot (South Norfolk Council) and Eric Vardy (Norfolk County Council).

## 2. The current flooding within Broadland

David Kemp (DK), Incident and Recovery Manager for the Environment Agency (EA) provided an update on the current flooding within Broadland. Since October there have been four named storms; Babet, Ciarán, Pia and Henk. This week was the first week since October that there has been five consecutive dry days and water levels are only now starting to drop. It is estimated that between 3-7 homes are currently flooded in the Broads and 1,800-2,000 acres of land have remained underwater for a considerable amount of time. The EA is working with the county council and district councils to look at the properties that have been flooded.

### Observations

- Above average rainfall fell on an already saturated catchment in a short space of time.
- Extended period of high tides caused tidal locking, particularly in the Thurne catchment and the water was unable to flow out of Great Yarmouth. There is not a lot of gradient to help the water draining.
- Storm activity in the North Sea has prevented the water leaving the catchment.
- Storm Pia storm surge was between 1.5m-2m and a contributing factor to the flooding at Postwick Marshes.
- Water sat on the marshes for a long time. The Internal Drainage Board (IDB) helped with the pumping out of water on land, but often there was not anywhere to pump the water as the rivers were already full.
- Existing flood warning levels and trigger warnings will be reviewed (they were last reviewed two years ago).

Flood embankments on the Thurne are built on peat which is moving and slowly sinking. 10-13 low spots have been identified around Candle Dyke and Potter Heigham area and are due to be built up in 2024. Existing sandbags will be replaced by lighter boards. Some of the low spots

have been purposely designed to be lower than other sections of the embankment. The location of the low spots will be reviewed taking into consideration houses, embankments, marshes and farmland.

### **Comments and answers to questions**

Professor Tim O'Riordan has recently advised the Upper Thurne Working Group (UTWG) that these flooding events will be more frequent in the future. DK agreed, the rising sea levels will increase the frequency of tidal locking and the warmer weather holds more moisture which means more rain for the catchment. Tide locking is not unusual however, what is unusual is when it lasts for two or more months.

Data from the recent flooding events will be added to the modelling and reviewed.

A member asked how much of the embankments in the Broads are on peat. On the River Yare water levels are not high enough for over topping but water is still seeping through and causing flooding. DK responded, the majority of the Broads are earth embankments. Increasing the height of the flood defences would protect the land in the immediate area, but it would also keep the water in the channels and threatens properties along the riverside edge in front of the food defences, so a balanced approach is needed.

A member asked if dredging is being considered. DK responded, the Thurne is dredged for navigation purposes only. Dredging a tidal river will replace the silt with sea water which may slightly increase the flow, but it would not ameliorate the flooding levels. For the EA to carry out dredging to reduce flood risk, they must first prove that it would reduce flooding and the EA has no evidence if would be the case. More assessments will be carried out in specific locations (Bure bend).

The NFU have been pressing for the reopening of the Hundred Stream as an outlet. DK responded, such proposal has not been submitted. Opening the outlet would also let sea water into the system and would require a flood risk activity permit.

Referring to the third crossing at Great Yarmouth and alleged contributions to the flooding, DK commented that a flood risk assessment and modelling had been completed for Herring Bridge.

A member asked if the works of the flood alleviation project is now redundant. DK responded, it was a good project, and the aims of the project were achieved however, climate change and the sinking embankments are real challenges for the future.

A member asked if there are any communications that can be used by members and shared with the public to explain the current flooding situation in a way which can be understood by the public. DK commented that they are in the process of writing a briefing paper. It was noted that some areas are complicated with many components coming into play.

### 3. Update on BFI progress and forward look

Peter Doktor (PD) and Mareth Bassett (MB) provided a short presentation on the progress of BFI. PD thanked DK for their presentation today which has set the scene and the urgency for BFI.

#### **Develop flood model to predict changing hazard**

- Building of the new Broads hydrological model, tributary models and updating of existing coastal models is still in progress.
- There have been some technical challenges to be addressed.
- The recent flood events will be used to test the model.
- Completion has been delayed to the end of 2024/early 2025.

#### **Describe values and agree objectives**

- Prioritisation and relative weight of the BFI objectives agreed at the last BFI EMF meeting.
- Technical report of the prioritisation activity has been produced.
- A public-facing note summarising the results is being prepared for publication in February 2024.

#### **Identify actions and pathways**

- 'Toolkit' of possible flood risk management actions was consulted upon last summer.
- Jacobs are summarising learning from past studies and strategies.
- Some workshops will take place to develop a shortlist of actions and action combinations which we want to investigate
- The shortlist of action combinations will be used for modelling and detailed appraisal.
- EMF to review and agree the shortlist during 8 July meeting.

A member asked if the shortlisting should be pushed back due to the delay in the hydrological model. PD confirmed that modelling will be needed for the testing phase. For the next phase, which is about suitability of the actions, the new model is not required and the task of assessing the shortlist can be done this summer. The data will be based on quantitative measurements and professional judgement.

A member asked if the delay to the hydrological model is because the model is more complex than anticipated or because of the current unprecedented situation which means that the fundamentals need to be revisited. PD responded, the delay is due to the scale and complexity of the model and the low topography, not the recent events.

#### **Eccles-Winterton**

- The Shoreline Management Plan (SMP) policy for Eccles-Winterton coastal frontage is hold the line (HTL) until 2055 and continues conditional on sustainability thereafter.
- As an adaptive strategy BFI needs to consider a range of futures including what the situation would be if HTL was unsustainable.
- BFI have agreed to work with the Upper Thurne Working Group (UPTW) at their next meeting to determine what the alternatives to HTL might broadly look like.

PD asked the Forum how advisable it is to be discussing the coastal frontage with the UTWG at this time given the sensitivities due to the recent flooding. A member responded, they support the decision and noted that people who do not attend the UTWG may feel excluded, but the model could be shared with other catchment areas.

A member commented that there is not going to be a good time, but they are content that it is presented to the UTWG. Communications need to be clear, and it is important to start discussions as early as possible.

A recent article by the British Antarctic Survey (Naughten, Holland & De Rydt, 2023) has reported a sea level rise over 7m meters due to the ice sheets melting. A member asked if the modelling includes the 7m increase. PD responded, various scenarios will be modelled including an increase in fluvial flow and an increase in sea level of 1.2m and up to 2.6m. This is based on guidance set by central government, the larger figure being the so-called 'H++ scenario'. KF added, the recent article referring to a 7m sea level rise is looking at 1000 years and beyond, not the timeline of the BFI.

A member asked if any other areas are doing hydraulic modelling similar to BFI, and if the initiative is reaching out to others. PD responded, there are lots of different models in the EA across different areas, but this model is based on a software which is built to reflect the Broads. We do benefit from the wider experience of the Jacobs team developing the model. More generally EA strategy teams and others do meet to discuss their experiences, for example with the Fens and the Resilient Coasts Project. Catherine Harries (CH) added that Jacobs are constantly reviewing what is happening elsewhere and working on other strategies. Part of the challenge of the BFI is its unique landscape.

The SMP refresh and a new National Coastal Erosion Map (NCERM) will be released this year.

### **Appraise actions and pathways**

- Studies in progress to inform appraisal methodology of possible action combinations:
  - Climate change and socio-economic scenarios.
  - Economic appraisal. Funding from central government vs local economics.
  - Social value and wellness indicators.
  - Interpretation of nature conservation legislation. Around 25% of the Broads is designated of international importance. There are sites with fixed features

which need to be maintained but this could limit our ability to adapt which may be more appropriate.

- Landscape and heritage.
- Salinity model.

Regarding the salinity model, a member asked if there is a way to manage the change in species. PD commented, it would be difficult to manage any change in the open channels, but there may be ways that the adjacent fens could be managed to limit the inflow of salt water or enhance its flushing out.

**Recent stakeholder engagement activity:**

- Newsletter 13 published.
- Broads Society 'Harnser' article submitted.
- Marie-Pierre Tighe (MPT) and PD presented BFI to Norfolk Strategic Flood Alliance.
- PD and CH attended the Upper Thurne Working Group meeting.
- Update to the Regional Flood and Coastal Committee was shared last week.

**Future stakeholder engagement activity:**

- Review and refresh of the overall engagement plan through to adoption of the final BFI strategy.
- Publication of objectives prioritisation summary note (February).
- Upper Thurne Working Group meeting (March/April).
- BFI stand at the Norfolk Show (June)

**Topics for future EMF meetings:**

- 22 April – Review and agree indicators for BFI objectives. (on Teams)
- 8 July – Review and agree shortlisted action combinations. (Face to face)
- 14 October – To be confirmed.

In November 2023 Matthew Shardlow presented a report on BFI to Broads Authority members. A copy of the report can be found at the following link : [Member report on outside bodies - Broadland Futures Initiative \(BFI\) \(broads-authority.gov.uk\)](https://broads-authority.gov.uk/Member-report-on-outside-bodies-Broadland-Futures-Initiative-BFI)

A member asked how big the circulation list was for the BFI Newsletter. MB confirmed that there are over 360 contacts including, private individuals, Parish councils, local groups, UEA, Norfolk CC, Councillors from local and county council as well as members of the EA. The latest newsletter can be found on the BFI webpage. [BFI Progress Newsletter Issue 13 \(broads-authority.gov.uk\)](https://broads-authority.gov.uk/BFI-Progress-Newsletter-Issue-13)

KF expressed the importance of the EMF meetings and the management of water. Weather patterns are becoming more extreme with above average periods of rain and exceptionally dry spells. The Broads hydrological model will probably be the most complicated model held by the EA. Some of the options that are being proposed will not be favourable, but they need to be considered and it is critical that BFI is talking about the long term. KF thanked the members to their contribution to those discussions.

#### **4. Any other business**

The Chair proposed that substitute members to the EMF attend a future meeting so that they have a basic understanding of the BFI in advance of them needing to provide cover. KF reminded the EMF that in the Terms of Reference it states that a substitute member should attend the EMF meeting if the elected member is unable to attend. MPT agreed to contact the local authorities to remind them of their responsibility to BFI.

#### **5. Date of next meeting**

10.00am-11.30am Monday 22 April 2024.