



Broadland Futures Initiative Information Evening

Broadland
Futures Initiative

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Broadland Futures Initiative

Welcome...

Overall aims of the this evening:

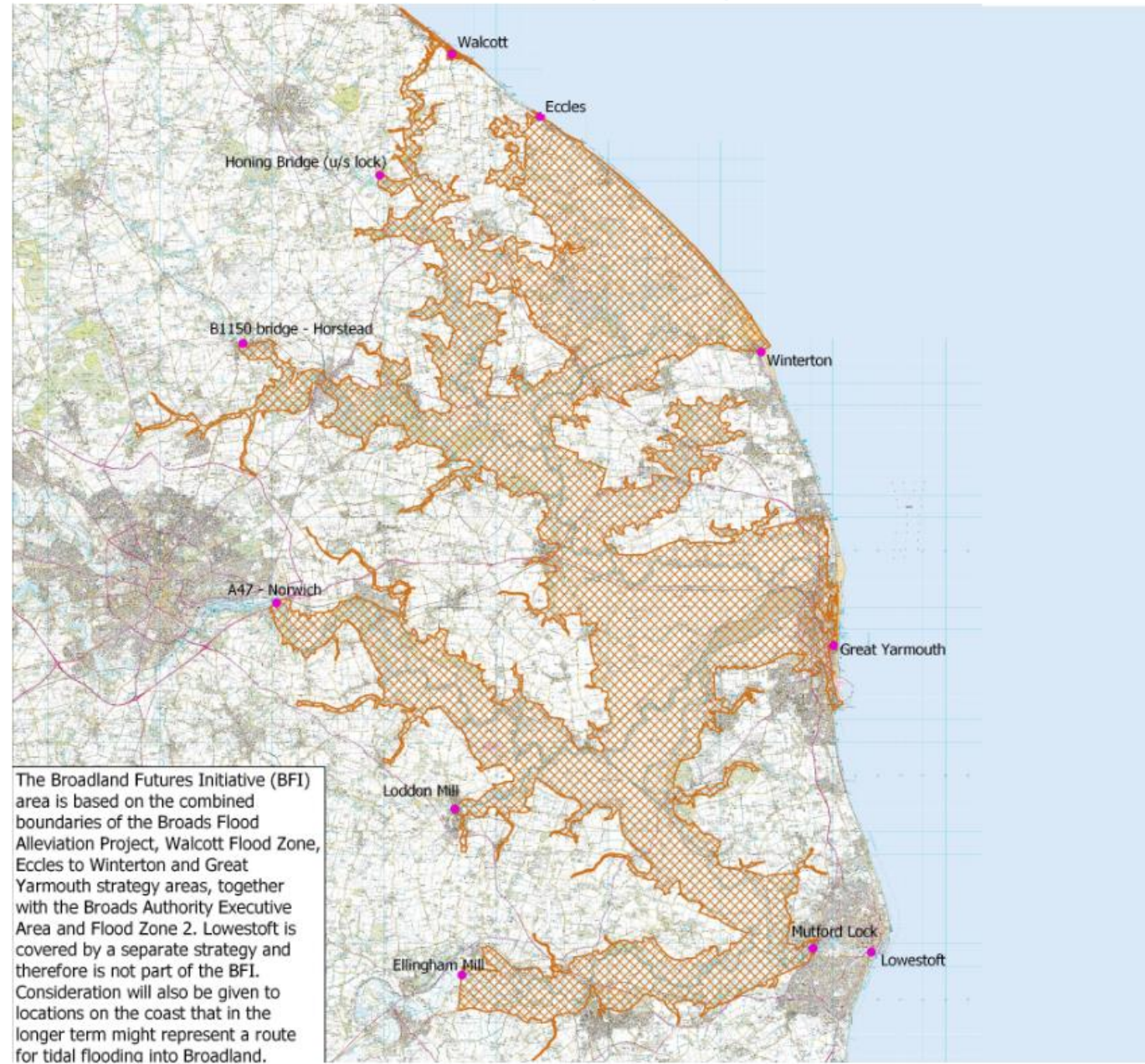
- To share information about the project – what it is, who is involved, why it has been formed, our work so far and a look at next steps.
- An opportunity for you to ask questions and hear from the team.



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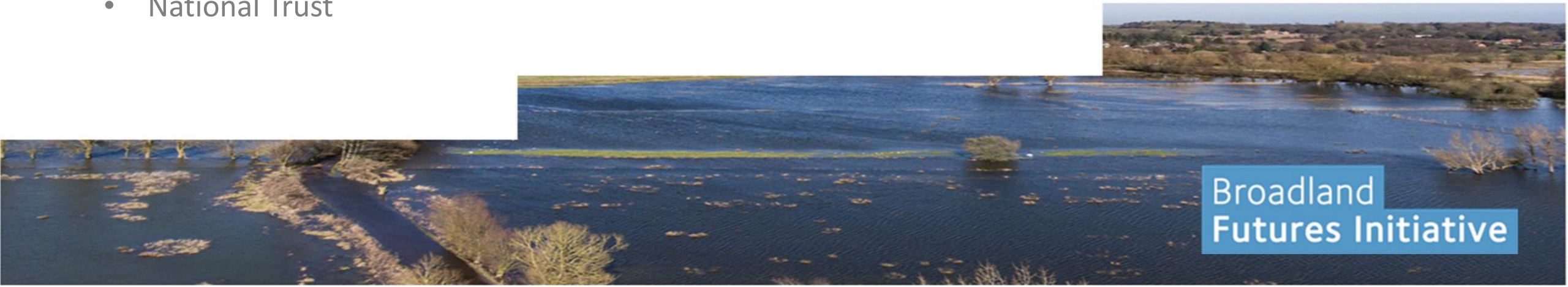
What is the Broadland Futures Initiative (BFI)?

- A 100-year flood risk management strategy and plan encompassing the Broads, Great Yarmouth and low lying coast.
- Considering all sources of flood risk.
- Responding to climate change.
- Making a resilient place.
- A plan for everyone.



Partnership

- The Initiative has been set up by organisations responsible for managing coastal and inland flood risk or with a close interest.
 - Environment Agency
 - Broads Authority
 - Natural England
 - County and District Councils
 - Internal Drainage Boards
 - National Farmers Union
 - Water Resources East
 - RSPB and Wildlife Trusts
 - National Trust



Working in partnership...

The Norfolk Strategic Flooding Alliance (NSFA)

It is expected that the BFI will inform the NSFA. The BFI is represented at the NSFA by a number of organisations, therefore, we will endeavour to develop good partnership working between the BFI and the NSFA through good communication, and sharing of knowledge to ensure that the aims and aspirations of both initiatives support and complement one another.



Governance

Democracy at the heart of decision making & engagement central to BFI

- The choices made must be acceptable for our local communities, for the environment, be technically possible and affordable.
- Key decisions are taken by a group of nominated local councilors, the 'Elected Members Forum'.



Why has the BFI been formed?

- The BFI is a partnership set up for future flood risk management in the Broadland area.
- Our main goal is to agree a framework and plan for future flood risk management that better copes with our changing climate and rising sea level.



Read and interact with the latest science on climate change...

Origins of the Plan Area –
Sets out a brief history of the Broadland area and how it has changed and adapted over time.

The Domesday Book records 1,500 sheep grazing at St. Benet's Abbey



The Broads area during the Roman Period

The First Sea Breach Commission was set up in 1609 and was chaired by the Bishop of Norwich.

The Haddiscoe Cut was constructed in 1833 to reduce the sailing time between Norwich and Lowestoft

Sources and Nature of Flood Risk within the BFI plan area –

Summarises the sources of flood risk in the Broadland area including key flood events that occurred in the past.



Concrete sea wall at Walcott
© Katy Walters-
Geograph.org.uk

Erosion of beaches and dunes can cause breaches of structures and flooding



Flooding during high spring tide adjacent to River Yare at Reedham
© Jeremy Halls

Higher than usual tides can exceed embankment levels and lead to flooding

The main source of flood risk is from the sea, since approximately 60% of land in the plan area is below today's mean sea level. Tidal surges have the greatest influence on the Yare and Waveney river systems, and less so on the Bure.



**November 2007,
Tidal Surge in
Reedham**

Coastal processes within the Plan Area –
Describing the evolution and processes of the coast between Cromer and Great Yarmouth, with a focus on the low lying Eccles to Winterton frontage.



Cliffs between Cromer and Eccles are a mix of clays, silts, sands and gravels deposited during glacial and interglacial phases over the last two million years. These characteristics make the cliffs soft, which means they are more susceptible to erosion.

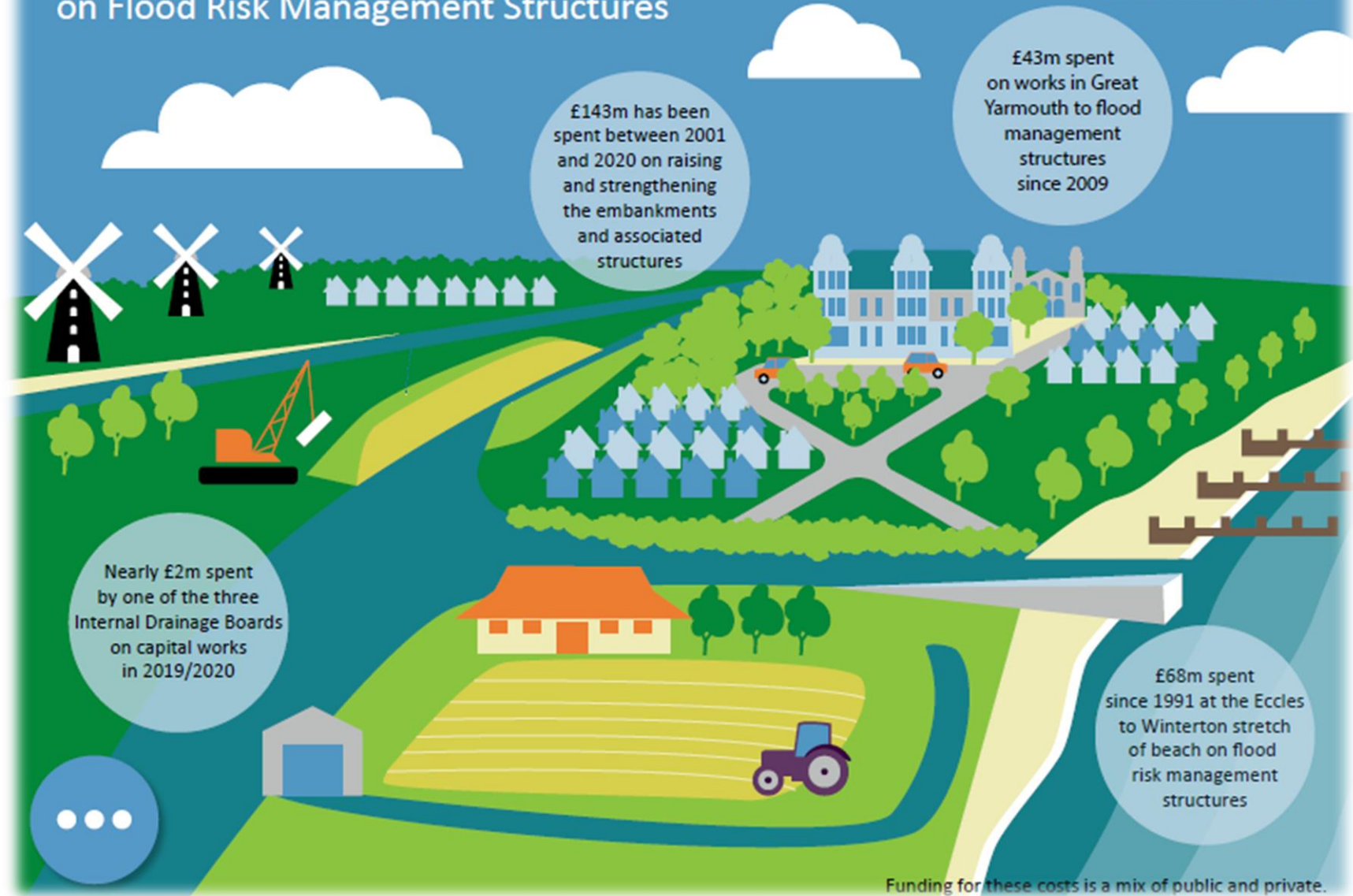
Current Approaches to Flood Risk Management –

Describes current approaches to managing flood risk within the Broadland area including an overview of how flood risk management is funded.

During a flood event, flood walls and embankments minimise flooding of the surrounding area. After a flood event, pumps drain the waterlogged areas to return them as quickly as possible to normal conditions.

Summary of Key Spending in the BFI Plan Area on Flood Risk Management Structures

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The Influence of Flood Risk Management- Overview of how the local economy, as well as the social and natural environments, are influenced by current flood risk management.

**View of
Breydon
Water
Saltmarsh**



Nearly 75% (28,000ha) of the BFI area is currently directly influenced by approaches to the management of flood risk. This influence is felt daily for land below mean sea level, and in storm events for higher ground.

The BFI plan will include a mix of different approaches to flood risk management.



**View of
Halvergate
Marshes**

The Future Impacts of Climate Change –

Summary of the likely changes in the climate, potential impacts, and potential approaches to adapt these changes.

Many of us are already adapting our lives to climate change. For example, insulating our homes so we use less energy and watering our gardens from water butts to use less water. In the same way, we are changing how we manage flood risk.



**1.9°C-7.5°C
hotter**

Summer air temperatures by 2120 will have risen by at least 1.9°C and could be as much as 7.5°C higher.

**27-51%
decrease in rainfall**

Summer rainfall by 2120 will have decreased by at least 27% and could have decreased by as much as 51%.



**1.5°C-5.5°C
warmer**

Winter air temperatures by 2120 will have risen by at least 1.5°C and could be as much as 5.5°C higher.

**11-29%
increase in rainfall**

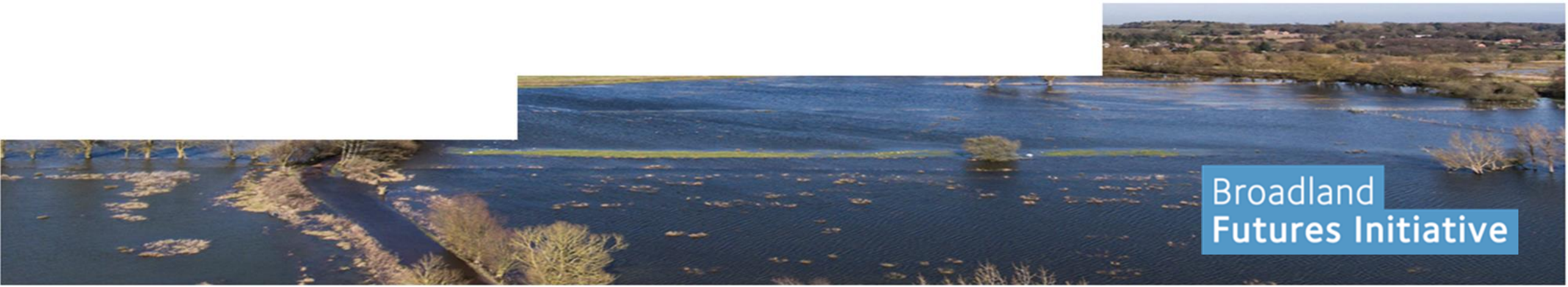
Winter rainfall by 2120 will have increased by at least 11% and could have increased by as much as 29%.



0.54 -1.02 m higher

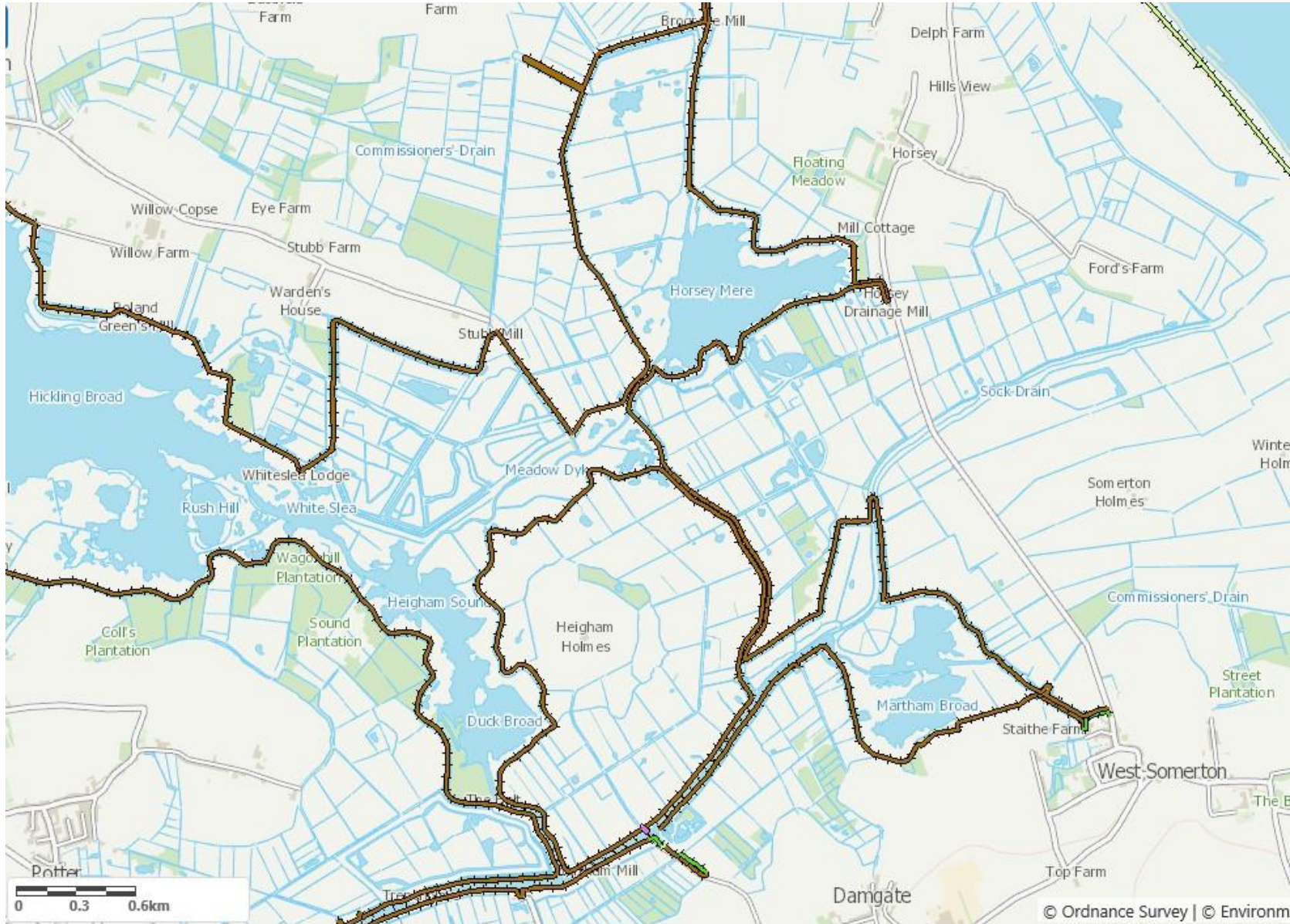
By 2120, sea level will have risen by 0.54m and possibly by as much as 1.02m.

Some local perspectives...



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The management of local flood embankments



The management of local flood embankments

- The 20-year Broadland Flood Alleviation Project improved and maintained flood defences throughout Broadland
- Work to compartments 6A (Hickling-Somerton) and 7 (Somerton-Oby) were undertaken in 2009-13, mainly embankment strengthening
- Generally an approximate 1% risk of overtopping
- Maintenance responsibility has now returned to the Environment Agency



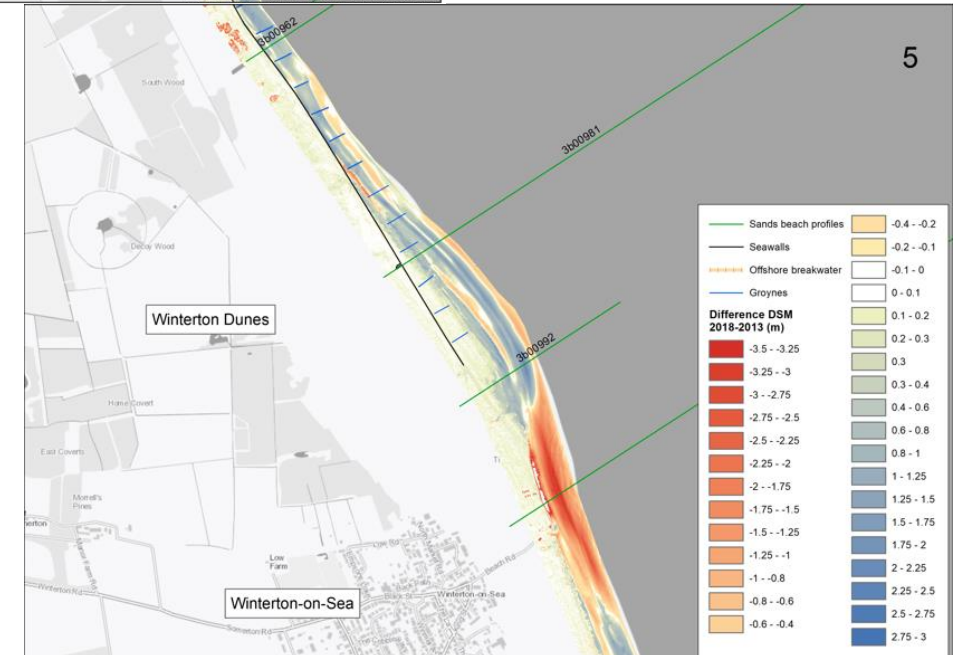
The local coast

- Part of the Eccles-Winterton frontage and wider.
- A dynamic frontage.
- Dunes, wall, beach, groynes and breakwaters working together.
- £68M spent since 1991 on construction and beach recharge works.
- On-going inspection, maintenance and monitoring.



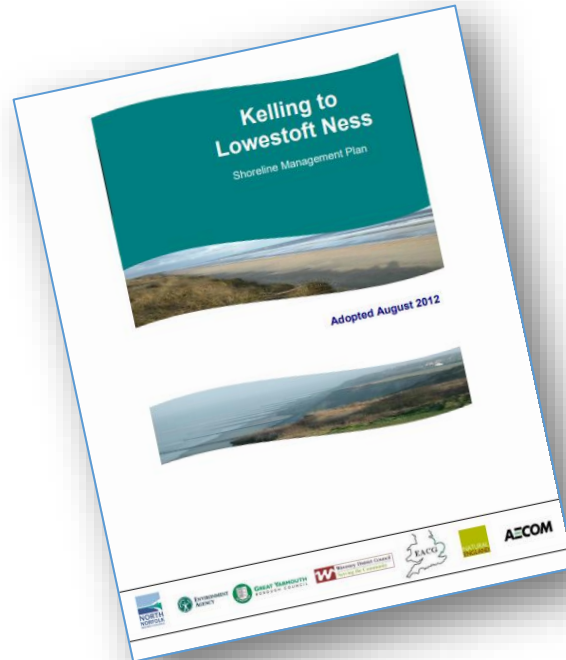
The local coast

- Winterton ness is moving.
- Erosion and accretion are taking place.
- Wall and groyne repairs in preparation at Eccles.
- Proposed improvements to Sea Palling boat ramp.
- Business case planned for future beach recharge.

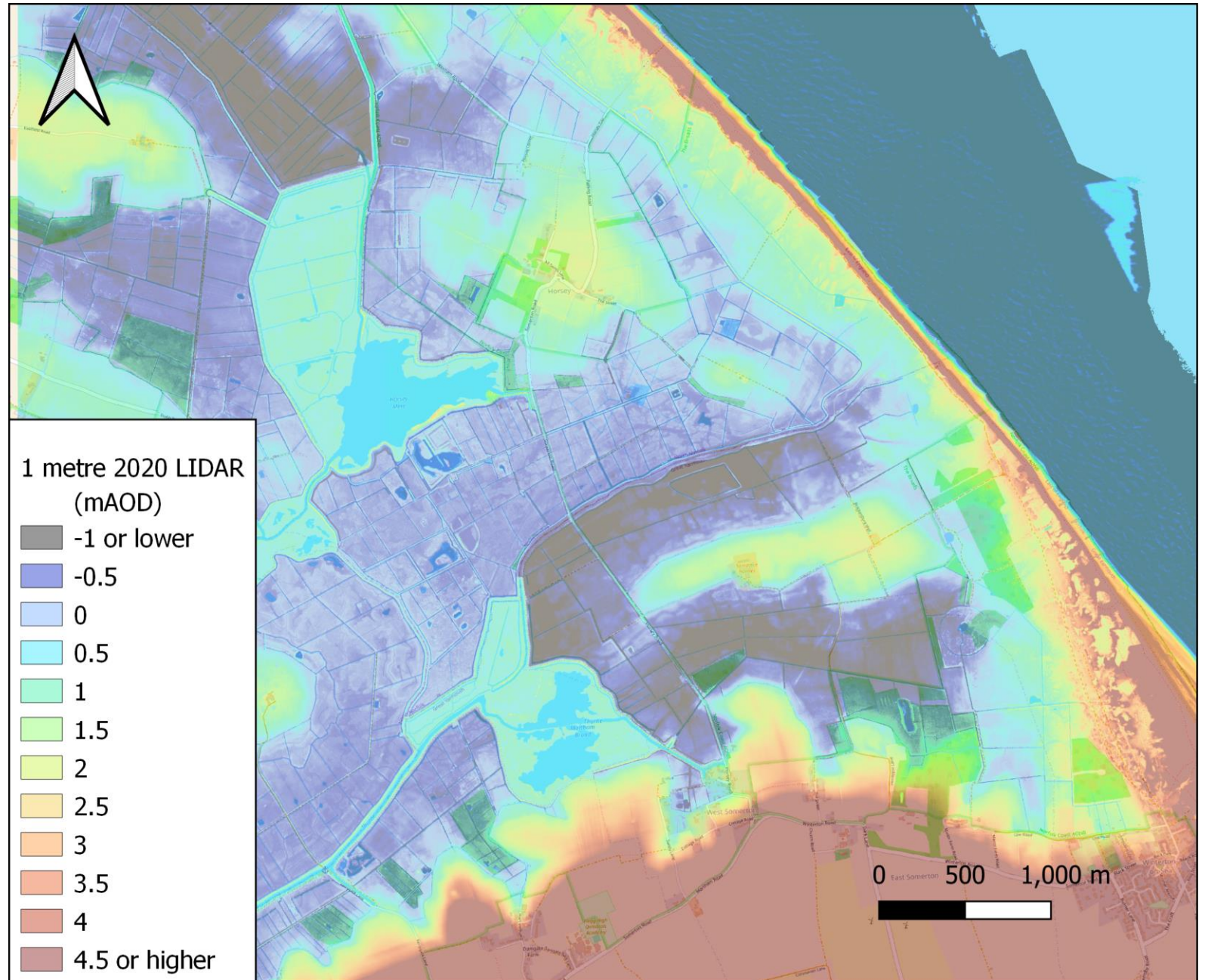


The local coast

- Shoreline Management Plan policy to 2055 is 'hold the line' and conditional after then.
- The BFI may make observations or suggestions concerning the longer-term future management of the coast.
- The BFI does not replace the existing SMP governance structure.



Local land levels



Engagement activity from January 2021 to now...

- Online survey and virtual consultation took place from 14th Jan -31st May.
- 167 full responses to our online survey. 924 visitors to the virtual exhibition space.
- Our stakeholder list now stands at 400, this is up from approx. 300 stakeholders at the beginning of the online consultation. Also, remembering that this overall total number includes individuals, Parish Councils, organisations etc.
- We sent out 2000 leaflets to targeted properties within the BFI Plan area.
- Across the first six months of the year we reached approx. 18,000 people with a variety of social media engagement activity.

Engagement activity cont'd...

- A series of virtual village hall events were hosted by the project team and attended by local members of the communities.
- A young persons survey, targeting 16-24 yr. olds, took place for 4 weeks and completed with the support of East Norfolk Sixth Form and Easton College. Analysis is available on the website.
- A consultative exhibition was open until the end of October at the Museum of the Broads. (photos on next slide)
- The latest digital newsletter was circulated earlier this month. A copy will be circulated after this meeting if you have not already received it.

Museum of the Broads – BFI Exhibition

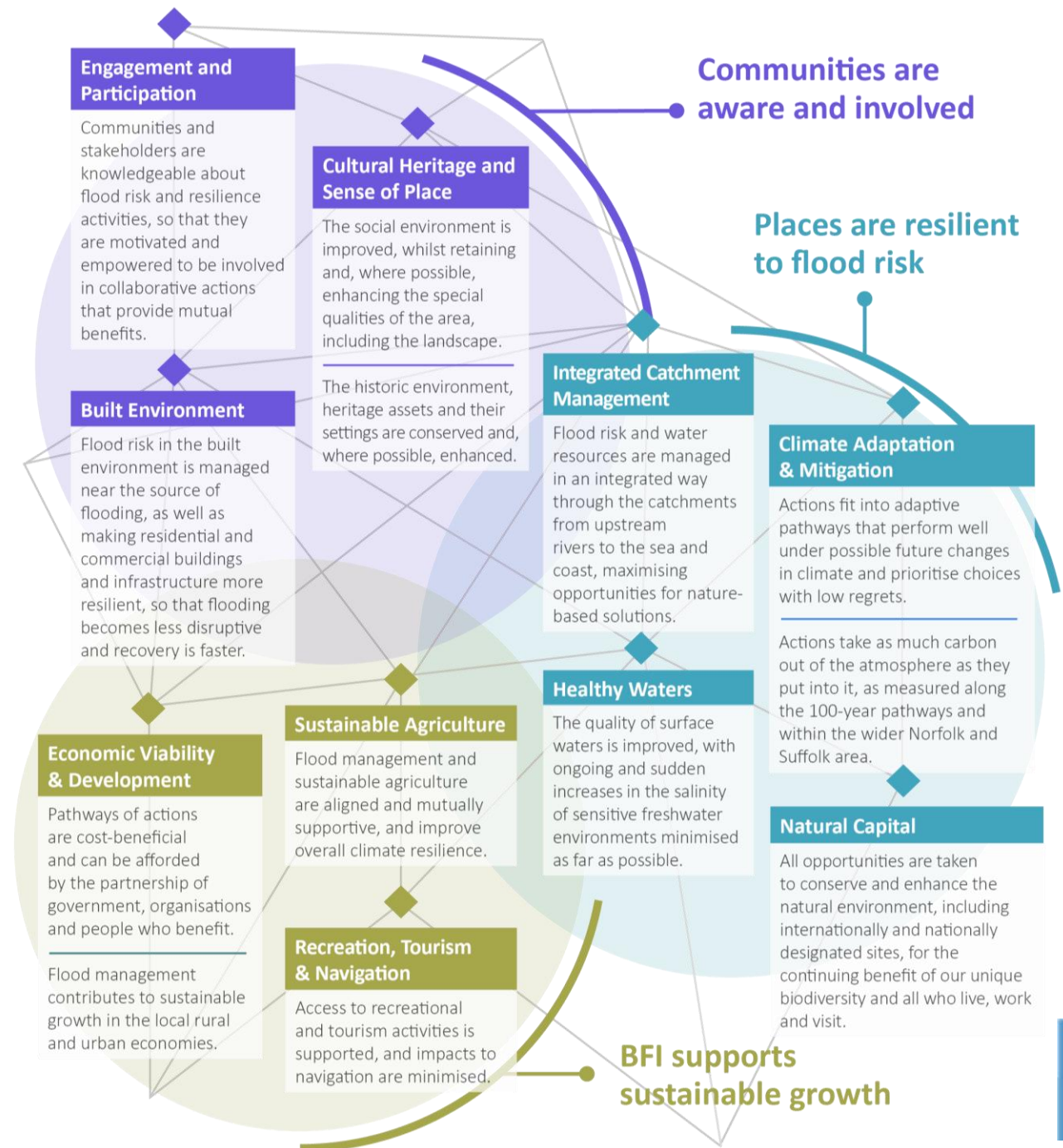


Work completed so far...

- A series of background documents setting out the issues relevant to the strategy and plan.
- Commissioned new hydraulic modelling of Broadland and an update of the existing coastal models.
- The Elected Members Forum has agreed the overall vision of the BFI and a set of objectives for the plan.

Together, we improve the resilience of people, places and the environment to flooding, as we adapt to the changing climate

Plan objectives



The next steps in creating the plan

Identify possible actions to manage flood risk, and shortlist these

Separate the study area into management units

For the range of climate change scenarios what combination of actions could be used over the next 100 years in each management unit?

Test all of the combinations against the objectives and identify those that best meet the objectives

Compile the plan; an 'adaptive pathway'

A forward look...

- Stakeholder Progress Newsletter to be issued end of November.
- Review feedback from Museum of the Broads exhibition.
- Evaluation of engagement activity so far, including review of engagement plan and objectives.
- Agreeing the next phase of technical work for plan creation, including how we incorporate stakeholder engagement and input to these activities.
- Continue to raise awareness at community events and working groups.



A serene landscape photograph of a sunset over a body of water. The sun is a bright, glowing orb in the center of the upper half of the frame, casting a warm, golden light across the sky and reflecting on the water's surface. The sky is filled with soft, wispy clouds. In the foreground, tall, dark reeds or grasses are silhouetted against the water. The water itself is calm, acting as a mirror for the sun and the sky. The overall mood is peaceful and contemplative.

Any questions?

<https://www.broads-authority.gov.uk/looking-after/climate-change/broadland-futures-initiative>