

BROADLAND FLOOD ALLEVIATION PROJECT



PROTECTING BROADLAND

Flood alleviation improvements for Geldeston Marshes (Compartment 25a Phase 2)

Public Consultation May 2009

Site description

In May 2001 Broadland Environmental Services Limited (BESL) was awarded a long-term contract by the Environment Agency to improve and maintain flood defences in Broadland. The Agency's approach to flood alleviation in Broadland was adopted in the 1990's and is based on a strategy consisting mainly of bank strengthening and erosion protection in order to reduce the risk of banks breaching. BESL updated this strategy and is now carrying out improvement works throughout 40 individual flood compartments in Broadland.

The major improvement works will be undertaken during the first 10 years of the Project; thereafter the banks will be subject to regular condition monitoring and maintenance works as required.



Geldeston marshes with high water levels

Consultation

This leaflet has been prepared as part of an ongoing process of consultation to inform you about BESL's proposals and to seek your views on them.

The purpose of this consultation document is to:

- Explain the range of flood defence options that BESL can consider;
- Outline our preferred flood defence proposals at this stage;
- Invite your views on these proposals; and
- Ensure, from the responses we receive, that we are aware of any specific local issues that ought to be considered as we go on to develop the proposals in greater detail.

BESL will carefully consider any comments it receives, seeking clarification and incorporating changes where necessary before finalising its plans. The results of this consultation will play an important part in BESL's planning application for the proposals. Feedback from this consultation will be contained in the planning application documents.

A questionnaire is provided with this leaflet. If you have not received one, or if you would like an electronic copy of the questionnaire by email, please contact Angela Rowe at the address given at the end of this document. Alternatively, all consultation documents produced by BESL can be downloaded from the BFAP project website (www.bfap.org).



Floodbank along the river downstream of Geldeston Dyke



Meadow within the SSSI



Site description

Compartment 25a Phase 2 works are located on the left bank of the River Waveney between Geldeston boatyard at the head of Geldeston boat dyke and Dunburgh Hill. The total length of the dyke and riverbank is approximately 2 km. This earth floodbank defends mainly grazing marshes, including Geldeston Meadows Site of Special Scientific Interest, as well as some sections of privately owned gardens.

The upper part of the Geldeston boat dyke is currently undefended and comprises the boatyard business and two residential properties.

There are no historic built structures above ground but, as with other parts of the upper Waveney valley, there is a risk that preserved remains could be uncovered from the peat during construction works.

The River Waveney is a popular, scenic navigable route, well used during the summer months with several hire boat firms operating from Beccles. Geldeston boat dyke provides a combination of private and free moorings. Further informal mooring is to be found on the main river where there is a piled edge along one section.

Need to improve existing flood defences

The standard of the flood defences in Broadland has progressively reduced over time due to bank settlement and the combined effects of erosion and deterioration of piling. Without improvement works the defences will become more vulnerable to overtopping and breach. A number of maintenance schemes have been carried out since 2002, including repairs made to leaks and the topping up of banks where low spots have formed. A more comprehensive programme of works is now required in order to provide an appropriate standard of defence.

What options did BESL consider for improvement works in this compartment?

The range of flood alleviation solutions that we have considered for these works follows the Environment Agency's and BESL's overall strategy for flood alleviation in Broadland. Specific solutions are based on up-to-date survey data (assessing the condition of the existing floodbank and erosion protection), an evaluation of the level of the existing flood defence and local issues including environmental considerations.

The options BESL have considered are illustrated and explained in the enclosed flyer. A brief outline of some of the criteria used to select the preferred solution is also given.

What are BESL's specific proposals for Compartment 25a Phase 2?

There are two significant differences between the existing flood defences and to those currently being proposed for this section. Firstly, the provision of defences to the boatyard area. Buildings at the boatyard have been flooded in the past and it seems appropriate whilst making improvements to include this area within the defended area.

The second is the retirement of the flood defences to the old railway embankment for part of the compartment. This retirement will provide the opportunity to create approximately 30 acres of wetter grassland and pools providing benefits to wildlife whilst still allowing for some grazing. The existing dyke and river bank will no longer provide the formal flood defence but will remain in place and continue to provide access for walking and fishing. Some upgrading work will be done to the floodbank footpath where the defence line is being setback but future maintenance will not be the responsibility of BESL or the Environment Agency. A new footpath is proposed along the crest of the new bank on the old railway line alignment which would afford an all-year route and a circular route for most of the year.

A summary of the proposals is as follows:

The primary aim of our proposals is to provide defences that will resist breach in a high level flood event. The levels will be raised in places in order to reinstate them to those that existed in 1995, the new defences will also be built to these levels. The overall design will take account of the requirement not to alter the pattern of overtopping or levels elsewhere.

Proposed works	Length (m)
Strengthen existing river bank	955
Install erosion protection	631
Provide floodwalls to boatyard	127
Improve old railway line embankment	421
Provide new crosswall banks	365

Material for the new floodbanks will be taken, where possible, from the realignment and widening of existing soke dykes. Any material sourcing for the section of bank that protects the SSSI would need to avoid encroachment onto the botanically rich parts of the site. The site does not contain enough material of a sufficient quality so it is proposed to import some clay for works near to the boatyard.

Alternatives BESL considered and discounted

The aim of these works is to strengthen and, in places, raise the level of the existing defences so that they will not breach in the event of a high level flood event. Where the road width is adequate banks will be strengthened along the existing alignment. However, where the existing erosion protection is failing or the road is narrow then setback is the preferred option.

The "do minimum" alternative would involve 'maintenance only' to the existing floodbank and no defences being constructed at Geldeston dyke. BESL surveys have established that parts of the remaining floodbank do not provide the level of protection required. It is too low or has poor erosion protection. If the proposed works are not undertaken there would be an increased risk of overtopping and a greater likelihood of breach. BESL and the Environment Agency do not consider the consequence of this alternative acceptable.

<p>Will the proposals have any impacts on flora and fauna?</p>	<p>Surveys for water voles, otters, reptiles, scarce plants and dyke vegetation have been undertaken to identify measures needed to avoid or minimise impacts during construction. Additional botanical and mollusc surveys will be undertaken in 2009. The realignment of part of the defences will provide the opportunity to develop wet grassland and pools on the marshes in front of the disused railway line.</p> <p>Full details will be provided in the Environmental Statement that will be submitted with the planning application.</p>
<p>What changes to the local landscape will the work cause?</p>	<p>A number of changes to the views across the landscape are anticipated as a result of the proposed works. However the majority of these are temporary such as the view of bare ground until vegetation re-establishes on the floodbank, folding and within the soke dykes. Completion of the flood alleviation works will provide long-term protection of the Broads landscape and its valuable habitats from the damaging effects of flooding.</p>
<p>To what extent will the proposed work affect navigation?</p>	<p>The majority of the construction works will be carried out from land. Any water-based work, such as the installation of erosion protection, will be completed in the winter months. Consultation with the Broads Authority and mooring owners over programming will be undertaken to ensure the minimum of disruption to navigation and mooring access.</p>
<p>What impacts will there be on other informal recreation?</p>	<p>There is a public right of way along the river bank and most of Geldeston dyke. Fishing is a popular activity with angling clubs operating in the area. Water based activities such as sailing and canoeing are also popular in this part of the Waveney Valley. During the works there will be some temporary loss of access for both anglers and footpath users.</p> <p>With the construction of a new setback bank at the line of the old railway it is proposed that a new public right of way would be provided along the crest. This new path would provide year-round access and link to the existing floodbank right of way to allow for a circular walk. It would also afford good views over the wet marshes.</p>
<p>What are the implications for landowners and business as a result of the proposed improvement works?</p>	<p>During the works there will be some loss of land for grazing and access. BESL contact landowners and businesses early in the design process so that the works programme minimises. The realignment of the defences onto the disused railway line will mean the riverward marshes will gradually become wetter although the expectation is that they will still be grazed during the summer months. The landowner is supportive of this approach. The frontline defence improvements will secure ongoing protection to the remaining areas of grazing marsh including Geldeston Meadows SSSI.</p>
<p>What other flood defence works are planned for this area? What is the proposed timing of these works?</p>	<p>Phase I works were undertaken along the Dockeney Wall in 2008. Elsewhere in this part of the valley works have been completed along the opposite bank at Barsham Marshes and further downstream between Beccles and Oulton Broad and between Aldeby and the Waveney River Centre</p> <p>Work is also proposed next year from Dunburgh through to below the Beccles bypass bridge (Compartment 25 Gillingham Marshes). A separate consultation leaflet will be circulated for this scheme nearer the time.</p>



What are the potential issues associated with this work?

The Strategic Environmental Framework (SEF) process, developed by BESL with extensive stakeholder input, sets out environmental standards for maintenance, flood defence improvements and first-time defences for undefended communities. The scheme details are consistent with these environmental standards. The table on the previous page identifies some of the key issues associated with these proposals. We would welcome your comments on these and any other issues that you think should be included.

What is the proposed timing of the works?

A planning application will be submitted in summer 2009 with a view to the main construction earthworks beginning in 2010. Vegetation clearance will be required in winter 2009/2010. The erosion protection work may also be done during the first winter period.

What are the next steps?

Thank you for taking the time to read through this information leaflet and answering the associated questions in the accompanying questionnaire. BESL is keen to find out what you think of these proposals. We will collate your replies and consider all comments made; these will help to inform us as we develop the proposals in more detail. If you have any queries regarding either these proposals, or those elsewhere in Broadland, please phone Angela Rowe (BESL Project Administrator) on:

01603 226161.



Contact us

If you wish to reply we would encourage you to email your reply to Angela Rowe at:

Halcrow@BAMnutall.co.uk

Please mark the subject line of your email with:

Compartment 25 a Phase 2 Consultation

Alternatively, our freepost address is:

**Broadland Environmental Services Limited
Freepost ANG20504
Norwich NRI IZW**

Both the consultation document and accompanying questionnaire can be downloaded from the project website at:

www.bfap.org

BESL would like to reduce the amount of paper we consume. In future can we email you the consultation document. If you are happy for us to do this please confirm, via email, the best address for us to send the document to.

Please try to ensure that all replies are received by:

24th August 2009

Replies can be considered after this date but please contact us first if you need an extension.

List of consultees

In addition to landowners/residents we will contact:

Barsham and Shipmeadow Parish Council
Beccles Amateur Sailing Club
British Dragonfly Society
Broads Angling Strategy Group
Broads Authority
Broads Hire Boat Federation
Broads Society
Bungay Cherry Tree Angling Club
CPRE
Environment Agency
Geldeston Parish Council
National Association of Boat Owners
Natural England
Norfolk and Suffolk Boating Association
Norfolk Area Ramblers
Norfolk County Council
Norfolk Landscape Archaeology
Norfolk Wildlife Trust
Norfolk Windmills Trust
Open Spaces Society
Reed and Sedge Cutters Association
RSPB
South Norfolk District Council
Southwold and District Freshwater Angling Preservation Society
Waveney, Lower Yare and Lothingland IDB
Waveney Ramblers
Waveney Valley Canoe Club