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Manor Wall and Landguard Fort Sea Defences, Felixstowe

Part of the Southern Felixstowe Coastal Strategy
Option Selection
Scoping Consultation Document

February 2003



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AGENCY**

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Our work includes tackling flooding and pollution incidents, reducing industry's impacts on the environment, cleaning up rivers, coastal waters and contaminated land, and improving wildlife habitats.

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Context

The Environment Agency (The Agency) is responsible for managing the flood risk in many areas arising from rivers and the sea.

Prompted by growing concerns over several areas in Felixstowe that are susceptible to tidal flooding, Suffolk Coastal District Council and the Agency appointed the engineering consultants Halcrow to prepare the Southern Felixstowe Coastal Strategy Plan. This plan sets out the management of flood and coastal defences along the section of coast between the War Memorial and the end of Trinity Terminal of the Port (please refer to Suffolk Coastal District Council's consultation document for details). Suffolk Coastal District Council are responsible for most of the frontage, although the Environment Agency are responsible for flood defences.

The Strategy Plan recommends improvements for flood and erosion protection along this length of coast over the next 10 – 15 years. Developing a flood defence strategy for this area will take some time and some areas along the frontage have been identified which would benefit from prompt flood defence works.

Black & Veatch Consulting (BVC) was appointed by the Environment Agency to assess the need for any urgent works to the flood defences at the present time. Two key areas have been identified where the flood defences may need to be improved in the short term: **Manor Wall** area and **Landguard Fort**. This document identifies a range of possible options to manage these defences. We would like your comments on our proposals.

The study area

The town of Felixstowe is located on the Suffolk coast between the River Deben and River Orwell estuaries (see Figure 1). The northern part of the town is built on higher ground, sloping down to the south east and south west. For most of the town, flood defence is provided by a flood wall landward of the promenade. At Manor Wall the sea wall is also the flood defence. The flood defences protecting the town south of Manor Wall then cross Landguard Common to Landguard Fort, then run into the Port of Felixstowe (see Figure 1).

Manor Wall is situated within the main tourist area in Felixstowe. It directly protects two caravan parks and other tourist-related amenities, recreational and commercial areas and a small number of permanent dwellings from flooding. Landguard Fort defences protect the historic site, in a less developed area. The wider flood risk area for the town includes much of the Port and town of Felixstowe.

The study area has some features of interest. To the south of the town lies Landguard Common, which is a Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR). Landguard Fort, to the west of Landguard Common, is an important heritage site. The Common and Fort together are designated as a Scheduled Monument.



Figure 1 Location Map

Why is there a need for flood defence work?

This document is concerned with two key issues: the proposed works to **Manor Wall** flood defence and the works to **Landguard Fort** flood defence.

An initial assessment of the effectiveness of the flood defences identified that defences at Manor Wall and the area to the west of Landguard Fort are in a poor state of repair.

Manor Wall

The Manor Wall sea defences comprise a sloping concrete revetment wall topped by a concrete wave wall. In some areas, the concrete has become worn and damaged. Beach levels on the frontage have fallen, and the timber groynes, which act to retain the beach, are in poor condition.

If nothing is done to improve the condition of the defences, the area protected by the seawall will become increasingly vulnerable to storm attack, which will increase the risk of flooding to the town.



Groynes in poor condition



Erosion of wall, concrete worn and damaged. Fallen beach levels expose the toe of the wall

Landguard Fort

Flood defences at Landguard currently run around Landguard Fort from Landguard Common to the viewing platform at the port. Failure of sheet piling in the harbour (next to the viewing platform), has made the flood defence embankment directly behind it vulnerable to storms. In November 2002 a large amount of shingle was placed in front of the sheet piling as a temporary measure to prevent further problems, however this is not a long term solution.

If work is not carried out, the flood wall beside Landguard Fort is at increasing risk of failure and could be breached causing widespread flooding. In addition, continued erosion of the area will affect adjacent historical structures.



Sheet piling failure has allowed the land behind to erode

How are flood defence options selected?

Options are being investigated for the management of the flood defences in the short term, whilst the overall Southern Felixstowe Coastal Strategy for the sea defences for the whole frontage between the War Memorial and the end of the Trinity Terminal of the Port is finalised. It is important that the short term options do not affect the long term strategic flood defence proposals, so only compatible options will be considered.

The range of engineering options will be assessed on technical, economic and environmental grounds. Part of the work is to undertake an Environmental Impact Assessment, a process by which the effects of a development on the environment are evaluated and issues of concern are investigated in more detail.

This consultation document aims to provide interested parties with an opportunity to provide feedback on the suggested options for Manor Wall and Landguard Fort flood defences and to identify the main impacts associated with the proposed options (see next section). It is also a valuable opportunity for us to gather any relevant local information that you may have, or could supply, which could contribute to the appraisal process.

We will consider your responses as part of our assessment of the potential impacts of the proposed options and select a preferred option for Manor Wall and Landguard Fort sea defences, based on the appraisal findings.

Please find enclosed a consultation reply slip intended to aid you in making a response. We would appreciate the return of all comments by March 15 2003.

In addition to this consultation document there will be an **exhibition held at Felixstowe Leisure Centre on 13 and 14 February 2003**. The display will contain details of the proposed options, and there will be staff from the Agency, BVC and Suffolk Coastal District Council on hand all afternoon to answer your questions.

Consultation with organisations and individuals who have an interest in the scheme will be undertaken at key stages throughout the programme as shown in Table 1.

Table 1 | Outline of the Consultation Process

Stage in Programme	Consultation Opportunity	Time Frame
1. Initial appraisal (current stage)	Initial consultation with the local community, landowners, statutory authorities and other parties.	Spring 2003
2. Detailed option assessments	Discussion of key issues with interested parties	Spring 2003
3. Selection of option	Consultation with organisations and individuals who expressed an interest in response to this consultation document	Spring/Summer 2003
4. Submission of planning application with an Environmental Report	Environmental report available for public comment	Summer 2003
5. Detailed design	Consultation with organisations and individuals who expressed an interest in response to the consultation documents	Autumn 2003
6. Commencement of construction	Continued consultation with interested organisations during the construction phase	Spring 2004

What are the key issues?

During the process of assessing the various options we will consider all aspects of the natural and human environment. Manor Wall is a tourist area, with caravan sites and other tourist accommodation, this sustains many businesses in Felixstowe. In addition to the tourist issues the beach is used for fishing and amenity.

The cultural heritage of Landguard Fort is an issue as the fort is a nationally important scheduled monument. It is internationally significant and is valued highly by English Heritage. The fort has been renovated over the last five years.

With regard to both the Manor Wall and Landguard Fort options consideration will be given to any potential impacts on the sites designated for nature conservation and archaeology which are close to the works.

There could be short term construction impacts in both areas in terms of traffic disruption and amenities.



What are the possible flood defence options?

A number of possible construction options have been identified as outlined below. The list is not definitive and suggestions for additional options will be considered.

Manor Wall

Option 1: Do Nothing

Wait until the Strategy Plan is implemented. This would result in further deterioration of the flood defences and hence an increased risk of flooding to Felixstowe town and port.

Option 2: Repair or replace concrete blocks only

Any worn concrete blocks would be repaired or replaced in order to prolong the life of the existing sea wall.

Option 3: Improve the beach by repairing groynes and recharge

Groynes retain the sand/shingle on the beach and recharge will replace sand and shingle lost from the exposed beach sections, protecting the sea wall and maintaining a beach environment, see Figure 3.

Option 4: Protect the wall with a rock toe

Rocks would be placed at the base of the sea wall to protect the sea wall by reducing the damaging effect of waves, see Figure 4.

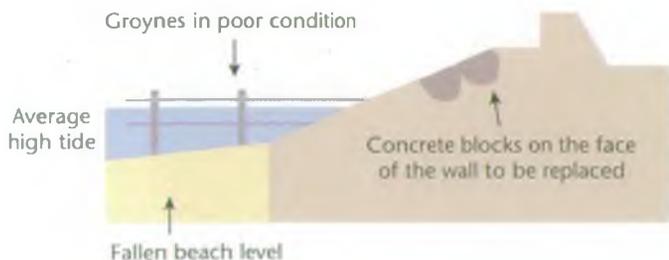


Figure 2 Current condition of the flood defences, option 2



Figure 3 Groyne improvement and beach recharge, option 3



Figure 4 Use a rock toe to protect the wall, option 4

Landguard Fort

The proposed options are outlined below and shown in Figure 5.

Option 1: Do Nothing

Allow the sheet piling in front of Landguard Fort to continue to deteriorate. A possible breach could occur, increasing the risk of flooding to Felixstowe town and port, and the fort. There may be erosion of the fort structures.

Option 2: Replace the existing flood defence

The existing flood defence is an earth bank and steel sheet piling in front of Landguard Fort. This option would replace the piling and maintain the existing flood defence bank around the fort.

Option 3: Retired flood defence line

Allow the piling in the harbour to continue to fail. Change the line of defence from the flood defence seaward of Landguard Fort, with either an earth embankment or brick wall alongside the port. The exact location of this line is not fixed. There would be no flood protection provided to the fort, and erosion behind the failed piling would continue.



Figure 5 Proposed options for Landguard Fort

Who will be consulted about the study?

The following organisations and individuals are being contacted as part of the study.

Statutory Consultees

Environment Agency Anglian Region
DEFRA
English Nature
Suffolk Coastal District Council
Department of Transport Office of the Deputy Prime Minister
Countryside Agency
English Heritage
Suffolk County Council
Ministry of Defence
Harwich Haven Authority

Non-Statutory consultees

Crown Estate Commissioners
Eastern Sea Fisheries Joint Committee
National Trust
Royal Yachting Association
Suffolk Wildlife Trust

Trinity House Lighthouse service
East of England Development Agency
Inland Waterways Association
Wildfowl And Wetlands Trust
British Trust for Ornithology
BASC Eastern England Centre
Essex and Suffolk Water
Norfolk & Suffolk Anglers Consultative Association
East Anglia Fishermens Association
Suffolk County Anglers Association
RSPB
Ramblers Association
Suffolk Biological Records Centre
Landguard Caravan site
Felixstowe Beach Caravan Park
The Landguard Ranger
Felixstowe Sea Angling Society
Felixstowe Chamber of Trade and Commerce
Port of Felixstowe
Felixstowe Regeneration Forum

Consultation Contact

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