



ENVIRONMENT AGENCY

Planning For The Rising Tides



THE HUMBER ESTUARY **SHORELINE MANAGEMENT PLAN**

September 2000

SUMMARY OF PROPOSALS





THE HUMBER ESTUARY SHORELINE



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INTRODUCTION

The Environment Agency is developing a long-term strategy to reduce the risk of flooding to people and property around the Humber.

The initial plan was published in September 2000. This leaflet summarises how the plan has been prepared and its key features. It also sets out the next steps that will provide the detail needed to convert the initial plan into a working document which defines the defence line around all the estuary.

OBJECTIVES

The Agency is aiming to produce a plan that will be sustainable, in the sense that it will provide acceptable flood defences without placing any undue burden on future generations. It will achieve this by seeking to work with natural estuary processes. The plan will also take into account the interests of all those concerned with the estuary and look at the effects of any changes, natural or engineered, that might occur. It will pay particular attention to the effects of sea level rise, currently about 3 mm per year but predicted to double to 6 mm per year or more.



Figure 1 Standard of protection around the estuary in 50 years if defences are not improved.

THE MANAGEMENT PLAN



WORK UNDERTAKEN SO FAR

The Agency has undertaken a wide variety of studies while preparing the initial plan. These have included assessing the flood defences, estuary processes, land use and development, economic issues and the natural and historic environment. Throughout, the aim has been to adopt a rigorous approach while developing a sound understanding of the issues. In the case of the estuary studies, the work has been at the leading edge of recent developments in the understanding of estuarine geomorphology.

Figures 1 and 2 are drawn from this work.

Figure 1 shows that around 70% of the defences around the estuary will provide a lower than appropriate standard of protection in 50 years time if we experience a 6 mm per year rate of sea level rise. At present, just 40% of the defences need upgrading, and the rate of rise is about 3 mm per year.

Figure 2 shows an example of the mathematical modelling work that has been undertaken during the geomorphological studies.

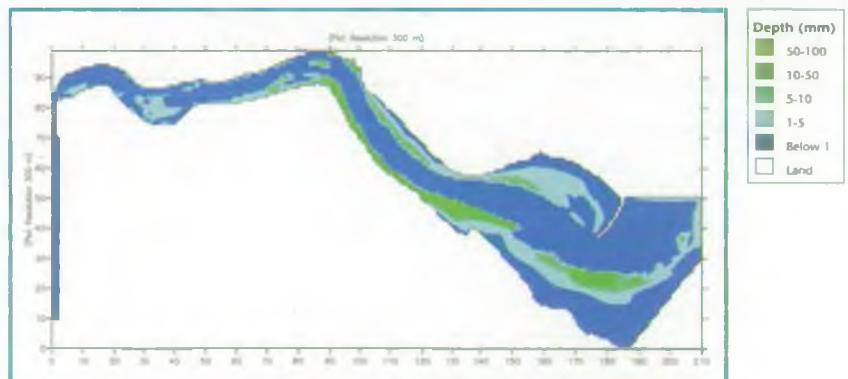


Figure 2 Movement of fine sediments ($30\mu\text{m}$) from mid estuary location.

PARTICIPATING ORGANISATIONS

The Agency has led the plan development, but many other organisations are participating in the project:-

Associated British Ports
British Association for Shooting and Conservation
Countryside Agency
Country Landowners Association
East Lindsey District Council
East Riding of Yorkshire Council
English Heritage
English Nature
Farming and Rural Conservation Agency
Humber Estuary Management Strategy
Humber Internal Drainage Boards
Kingston Upon Hull City Council
Lincolnshire County Council
Ministry of Agriculture Fisheries and Food
National Farmers Union
North Lincolnshire Council
North East Lincolnshire Council
Royal Society for the Protection of Birds
Yorkshire and Lincolnshire Wildlife Trusts

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THE PRELIMINARY PLAN

The number of people and the value of property within the floodplain mean it is essential to continue to provide a line of defences around the estuary. It may be worthwhile moving the line locally however, if this will provide benefits (such as reduced costs). The overall flood defence strategy therefore has three main features, as follows.

1. Hold the line of the existing defences where there is no justification for moving them.
2. Identify sites where moving the defences will provide flood defence benefits, taking social, environmental and economic issues into account, and establish a programme for moving these defences. Two types of site will be identified.
 - (a) Sites where moving the defences will provide flood defence benefits directly.
 - (b) Sites where moving the defences will provide flood defence benefits indirectly, by reducing the effects of sea level rise.
3. Support the creation of new inter-tidal habitat to maintain the estuary's conservation status.



E MANAGEMENT PLAN



WHAT HAPPENS NEXT

The September 2000 plan provides a long-term framework for managing flood defences around the estuary - for the next 50 or more years. It does not as yet however define specific locations for defences, and this is the next task.

The project to refine the plan is to be launched before the end of 2000. It will identify a relatively small number of sites (perhaps eight or so) where setback may deliver benefits in terms of long-term flood defence management. Setting back the defences may result in water levels being lowered further upstream of the setback sites, and this would therefore potentially counter sea level rise effects. Setback would also result in the creation of new environmental habitat. Creating new habitat would redress some of the losses that are taking place as a result of sea level rise, although the mechanisms for funding such work are yet to be established.

The project will take at least another two years to complete, as is shown in the chart on this page.

Apart from carrying out the technical work that will be needed to assess the local and more remote impacts from setback, the Agency will consult very carefully with all of those affected, directly and indirectly, by the work being considered. Three documents have so far been published by the Agency (April and October 1999, and September 2000) describing the work undertaken so far, and great care will be taken as the next stage of the work begins to work closely with local people. A Steering Group representing

the main affected organisations has been in place since the project began, and the intention is to set up new consultation groups as the work becomes site-specific.

There will be a number of outputs in 2002 in addition to the more fully detailed long-term flood defence plan. These will include a Sustainability Appraisal and a Coastal Habitat Management Plan. The latter will examine the flood defence plan's effects on important coastal nature conservation sites in or near the estuary. We will also develop guidance to assist the local authorities in particular with the planning implications of the proposals.



Activity	2000	2001	2002
Undertake further studies		■ ■ ■ ■ ■ ■ ■ ■ ■ ■	
Draw up refined SMP			■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Present and discuss results			