

# Humber Estuary Coastal Authorities Group **Flamborough Head to Gibraltar Point Shoreline Management Plan**

## Appendix A – SMP Development

Final

December 2010



Prepared for  
Humber Estuary Coastal Authorities Group

## Revision Schedule

### Flamborough Head to Gibraltar Point Shoreline Management Plan

#### Appendix A – SMP Development

December 2010

Rev	Date	Details	Prepared by	Reviewed by	Approved by
CD1	9 November 2009	Consultation draft	<b>Jonathan Short</b> Assistant Coastal Engineer	<b>David Dales</b> Director <b>Dr John Pos</b> Associate	<b>David Dales</b> Director
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## A1 The Policy Development and Appraisal Process

### Introduction

- A1.1 This Appendix provides an overview of the steps and processes undertaken to develop the HECAG Shoreline Management Plan. Detailed information on the various stages is given in the other appendices. The SMP development process has largely followed the guidance produced by Defra (Shoreline Management Plan Guidance, 2006). Figure 1.1 shows an overview of the stages involved in the Plan development.

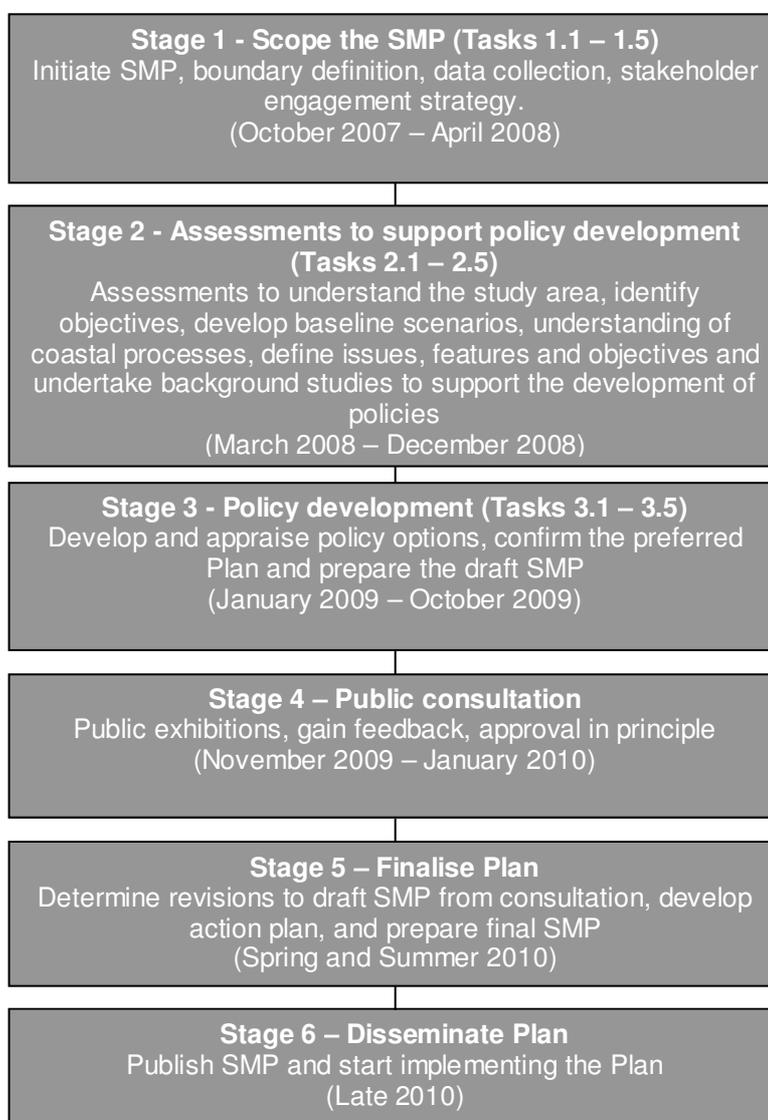


Figure 1.1: Overview of SMP development process

## A2 SMP tasks

### Tasks based on SMP guidance

#### Stage 1: Scope the SMP

- A2.1 This first stage of the SMP consists of five tasks to initiate and define the process, including consultation and data collation.

##### Task 1.1 Initiate SMP

- A2.2 This task consisted of establishing the governance of the SMP by setting up the Client Steering Group (CSG) and Elected Members Forum (EMF), as described in Chapter 1 of the main document, and deciding the approach and scope of work.

##### Task 1.2 Define the SMP

- A2.3 This task included identifying and confirming the geographical boundaries for the SMP, as described in Chapter 1 of the main document. The geographical boundaries were confirmed at a Client Steering Group Meeting on the 2<sup>nd</sup> October 2007.

##### Task 1.3 Define stakeholder engagement

- A2.4 Stakeholder engagement was a continual process throughout the development of the SMP. A Stakeholder Engagement Strategy outlining activities and tasks was developed; full details are available in Appendix B.

- A2.5 A database of details of key consultees and a Key Stakeholder Group was compiled as part of this task.

##### Task 1.4 Data collection

- A2.6 The main activities for this task were to initiate the data collection process and obtain information for the SMP. Data obtained was tracked in a receipt register so that data could be organised, stored and referenced quickly. The collated data were reviewed for coverage, completeness and accuracy. A GIS database of environmental baseline information was also produced, allowing the user to interactively view and explore the data and features.

##### Task 1.5 Additional investigations

- A2.7 The aim of this task was to undertake any further studies that would provide information needed to review the SMP. Although there were inevitable gaps and some uncertainties in knowledge, there was generally enough information available to develop the Shoreline Management Plan of the HECAG area.

## Additional activities

- A2.8 As well as the above tasks identified in the SMP guidance, there were also a number of other tasks that were integrated into the process to provide a more detailed understanding of the area to help with the policy decision process. In brief, these are as follows:

### Review of monitoring data

- A2.9 A review was undertaken of East Riding of Yorkshire Council cliff monitoring survey data. This has been included in Appendix C.

### Risk Register

- A2.10 A risk meeting was held with the Client Steering Group at the start of the process, and periodically throughout the Plan development, to identify the critical factors that could influence the development and delivery of the SMP. By recognising these risks early in the SMP process and updating them before reaching a critical stage, efforts could be made to pre-empt and mitigate them.
- A2.11 As a result of the Client Steering Group meeting on 2<sup>nd</sup> October 2007, a Risk Register was established. This listed all of the risks, establishing whether the risk was high, medium or low and suggested mitigation measures. This was updated on an ongoing basis at subsequent management and Client Steering Group meetings.

### Website

- A2.12 An SMP website was established to provide the public, Client Steering Group and Elected Members with easy access to project information and documents. The public section provides general information about the Plan, as well as providing a medium through which to receive feedback and queries. Updates on upcoming events and advertising of stakeholder exhibitions were also posted on the site.
- A2.13 Private members sections were also set up for the Client Steering Group and Elected Members Forum which provided a safe and effective method to communicate and post documents reports for comment and review through the Plan development.
- A2.14 The website is found at [www.hecag-smp2.co.uk](http://www.hecag-smp2.co.uk) and an example of the homepage is given in Figure 2.1.

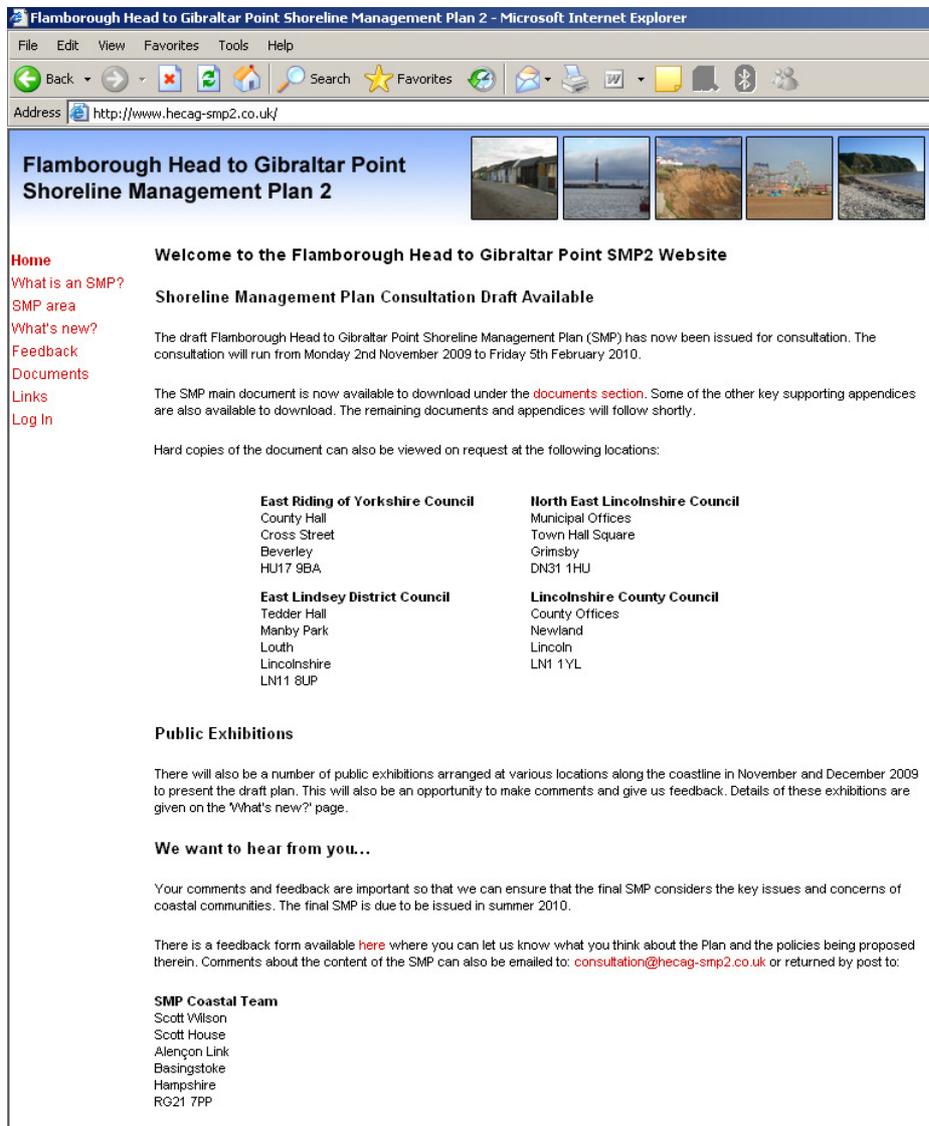


Figure 2.1: Front page of the HECAG SMP website.

## Stage 2 - Assessments to support policy development

- A2.15 The tasks of Stage 2 were undertaken to develop the understanding of the shoreline. This is required to support the appraisal of policies necessary to develop the preferred Plan. The tasks included both technical assessments (coastal processes and defences) and evaluation and characterisation of land use and environment.
- A2.16 The Defra guidance identifies a number of tasks that are related. As well as developing understanding, Stage 2 also identified the objectives (or policy appraisal criteria) used in Stage 3 to guide the selection of the preferred policies.

### Task 2.1 Baseline Understanding of Coastal Behaviour and Dynamics

- A2.17 A review of coastal behaviour and dynamics was undertaken. This was used to build a detailed understanding of the SMP area, identify uncertainties and test the shoreline responses and implications of the baseline scenarios. This was facilitated through a review of available data and literature, including information presented in the SMP1. The results of key studies undertaken since the SMP1s were also used; notably, Futurecoast (Halcrow 2002) and the Southern North Sea Sediment Transport Study (SNSSTS) (HR Wallingford 2002). These documents provided a high-level understanding of coastal dynamics and behaviour within the SMP area and beyond. Reference was also made to the various research studies undertaken as part of the Land-Ocean Interaction Study (LOIS; Shennan and Andrews, 2000) which focussed on Holocene changes on the east coast of England. In addition, information from other strategy studies, including the Lincshore Strategy Review has been incorporated into the development of the Plan. The results and findings of these assessments and a detailed description of coastal process understanding are included in Appendix C.
- A2.18 A review and summary of coastal defences was undertaken as part of this task. As recommended by the Defra guidance, a primary source of data relating to the condition of the coastal defences was the National Flood and Coastal Defence Database (NFCDD) which was obtained as part of the data collection phased carried out during Stage 1. The NFCDD coastal defence data was reviewed and supplemented by information from local coastal engineers and asset inspectors. A summary of the defences and their condition along the frontage is provided in Chapter 2 of Appendix C of the main document.
- A2.19 The Humber Flood Risk Management Strategy has recently been published (March 2008) and the area covered by the Humber Flood Risk Management Strategy overlaps the SMP area. The Humber Flood Risk Management Strategy covers the inner, middle and outer Humber Estuary including the coastline between Easington and Saltfleet. To ensure this overlap was addressed, there has been close communication between the project teams with the Humber Strategy team represented on the SMP Client Steering Group.

### Task 2.2 Develop baseline scenarios

- A2.20 Following the specialist technical understanding gained in Task 2.1, the baseline scenarios were developed and assessed. This aimed to provide an appreciation of how the shoreline is behaving and how this behaviour could be influenced in the future under different management scenarios.

- A2.21 Assessing the shoreline responses to two scenarios ('No Active Intervention' and 'With Present Management'), allowed the flood and erosion risks to be determined under the different management situations. Baseline mapping and a detailed description of shoreline response was produced.
- A2.22 The No Active Intervention scenario was assessed on the basis of the expected timing of existing defence failure.
- A2.23 For the 'With Present Management' assessment, the assumption was made that the same standard of service would be provided by the defences throughout the SMP plan period. These assessments also addressed climate change as far as possible.
- A2.24 Predicted results were mapped for the short, medium and long term for both scenarios and are included in Appendix C of the main document.

### Task 2.3 Define features, benefits and issues

- A2.25 To gain a baseline understanding of the features, benefits and issues of the area, the key features along the coast were identified and were used to develop a characterisation of the SMP frontage.
- A2.26 This task used existing information and data, as well as feedback provided from the stakeholder engagement process. The features and themes covered included:
- Agriculture and industry
  - Coastal processes
  - Communities
  - Flood and erosion risk
  - Historic environment
  - Infrastructure
  - Landscape
  - Natural environment
  - Tourism
- A2.27 In order to undertake the characterisation assessment, the entire frontage was split into nineteen character areas. The divisions between areas were selected so that each area had a broadly similar character in terms of land use, geography and coastal character. This characterisation was then used as a basis for developing policy appraisal criteria and options.
- A2.28 Appendix D includes the descriptions and a schematic representation of each area, including information covering land use and environment. The schematic representations of each character area are shown in the main document (Chapter 6). These representations were developed under the guidance of the Client Steering Group.

## Task 2.4 Define objectives

- A2.29 A top-down approach to objective setting was agreed with the Client Steering Group and Elected Members Forum. Following characterisation of the coast and consultation, a set of principles was agreed setting out a long term vision and ethos for management (See Chapter 1 of the Main Document). From these principles a set of generic objectives was developed as a basic starting menu to develop specific objectives. These objectives were then used as policy appraisal criteria to assess the impacts and effects of the different policy packages. The specific objectives set for each Character Area are included in Appendix D of the main document.

## Task 2.5 Identify Flood and Erosion Risks

- A2.30 The task of identifying flood and erosion risks for the SMP frontage was undertaken as part of the baseline assessments (See Appendix C). Indicative expected shoreline positions were estimated and mapped under the different baseline scenarios for areas where erosion is a risk. The flood likelihood and extents were also mapped for the No Active Intervention situation. The Environment Agency Flood Zone 3 Area was used to indicate the potential flood area currently protected by defences.
- A2.31 By identifying flood and erosion risks, an overall understanding of how flood and erosion risk varies in space (within the SMP area) and in time (from epoch 1 to epoch 3) was gained. This fed into the appraisal of policies in Stage 3.

## Stage 3- Policy Development

A2.32 The stage 3 tasks used the information collated in Stage 2 to develop policy options for the SMP, appraise the options and define the preferred policy. Throughout this Stage, many complex and difficult issues had to be addressed and key decisions agreed, meaning the detailed appraisal produced only covered realistic options appropriate to the high level of SMPs. The results of the tasks led to the identification of the draft preferred Plan which is included in the draft SMP document. The steps required to develop the draft preferred Plan are shown in Figure 2.2.

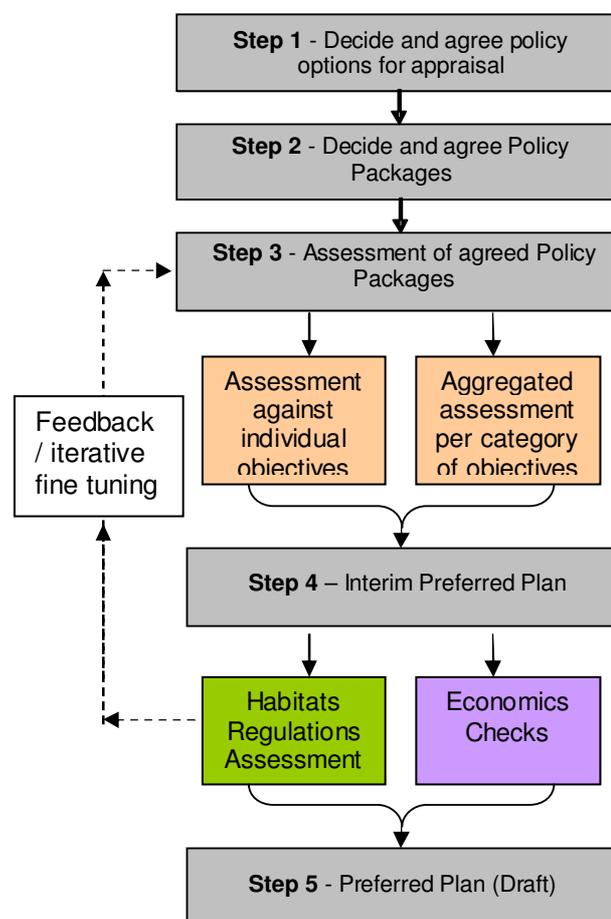


Figure 2.2: Steps required to develop the draft preferred Plan.

## Task 3.1 Define Policy Scenarios

### Selection of Policy Options

- A2.33 During workshops for the Client Steering Group and Elected Members Forum, discussions led to the identification of policy options that seemed to be relevant and appropriate and worthy of further appraisal. This was undertaken on a Character Area by Character Area basis. This process involved systematically addressing the viability of the 4 Shoreline Management Plan policy options for the specific sections of the coast. Where flood risk is an issue, shoreline management policies which explicitly address flood risk were chosen for further appraisal.
- A2.34 The policies selected for appraisal during the workshops were not necessarily considered likely, desirable, feasible or economically viable at this stage; rather their evaluation and appraisal was considered to be necessary and in the public interest. A summary of the policy options chosen for full appraisal and those ruled out, along with explanatory text is provided in Appendix E.

### Policy Packages

- A2.35 It was considered impractical to appraise every possible policy combination from those selected. Some combinations were also deemed inappropriate, for example defending presently undefended rural areas while leaving currently defended urban areas to erode or flood. Therefore, policy options were assembled into a number of Policy Packages. These are sensible assemblies of policies which could be implemented in a coherent manner over the Shoreline Management Plan epochs and reflects an intent of management for sections of the frontage. The Policy Packages appraised are detailed in Appendix E.

## Task 3.2 Policy Scenario Assessment

- A2.36 This task assessed the intent of management options developed as part of the previous task (Task 3.1). This was undertaken by assessing the performance of the options against policy appraisal criteria developed from the specific Character Area objectives agreed in Stage 2. The details of the appraisal processes are given in Chapter 6 of Appendix E.

## Task 3.3 Preferred Scenario Identification

- A2.37 Preferred policy options were identified through an iterative process with Task 3.2 and with full involvement from the Client Steering Group and Elected Members Forum. The technical work in Task 3.2 led to a tabular and graphical representation of the balance of outcomes that each particular policy package achieves for each epoch in relation to the appraisal criteria (see section 8 of Appendix E).
- A2.38 A number of workshops were held with the Client Steering Group and Elected Members Forum to review the initial appraisal of policies. Following these reviews and feedback, fine-tuning of the preferred packages was undertaken. Involving the Elected Members Forum in the final approval stage allowed the views of the local community, through their elected representatives, to be fairly considered and to find the best solutions for the entire SMP area and its communities.
- A2.39 This technical appraisal led to the identification of the preferred management intent for each area of the frontage. These policies were then put forwards for further refinement and fine tuning to optimise the draft preferred Plan.

## Task 3.4 Confirm Preferred Scenario

### **Fine tuning of preferred policies**

- A2.40 Following the identification of preferred management intent from the technical appraisal process in Task 3.3, a further process of fine tuning and policy refinement was required to ensure a coherent, sustainable and appropriate Plan was produced.
- A2.41 As part of this process, a number of further steps were taken to check the economic viability of the policies and ensure compliance with relevant environmental legislation. A high level check on the wider sediment transport impacts of the preferred policy scenario was also undertaken. These steps were necessary to facilitate the selection of the preferred policies.

## Task 3.5 Draft SMP document Preparation

- A2.42 This task involved drafting the main document and appendices. The document was developed with the full involvement from the Client Steering Group and Elected Members Forum. An annotated table of contents was first produced and agreed. The document was then developed on that basis with a number of feedback cycles involving the Client Steering Group and Elected Members' Forum.

## Stage 4 Public Consultation

- A2.43 In the early stages of the plan, public exhibitions were held to gain the views of residents and feedback on the policies being considered. This feedback was evaluated and integrated into the development of the Plan to try to ensure that the draft Plan is appropriate in meeting the needs of the SMP area.
- A2.44 The draft Plan was available for public consultation for a 3 month period; this stage aimed to make sure that all stakeholders and the general public had the opportunity to review and comment on the draft SMP.
- A2.45 In this three month period for public consultation, a number of exhibitions were held at various locations along the coast to provide the public with information on the project, give details of the draft Plan policies, give them a chance to talk to those involved in the production of the Plan and give feedback on the draft Plan. In addition, a number of dedicated key stakeholder workshops were organised to gain more detailed comment and feedback from these specific stakeholder groups.
- A2.46 During this consultation period the Plan was available to download and review from the project website [www.hecag-smp2.co.uk](http://www.hecag-smp2.co.uk). Copies could also be viewed at the Council offices shown below:

East Riding of Yorkshire Council  
County Hall  
Cross Street  
Beverley  
HU17 9BA

North East Lincolnshire Council  
Municipal Offices  
Town Hall Square  
Grimsby  
DN31 1HU

East Lindsey District Council  
Tedder Hall  
Manby Park  
Louth  
Lincolnshire  
LN11 8UP

Lincolnshire County Council  
County Offices  
Newland  
Lincoln  
LN1 1YL

## Stage 5 Finalise Plan

- A2.47 Following public consultation and feedback received from key stakeholders and residents, the Plan was reviewed and finalised. The feedback and comments received from all stakeholders was collated, analysed and discussed. Updates and amendments were made if considered appropriate by the Elected Members' Forum and Client Steering Group. The Action Plan was developed during this phase outlining the work required to implement the Plan.

## Stage 6 Disseminate Plan

- A2.48 During this final stage the final Shoreline Management Plan is published and distributed to the public and stakeholders.