

1 INTRODUCTION

1.1 The Shoreline Management Plan

A Shoreline Management Plan (SMP) provides a large-scale assessment of the risks associated with coastal evolution and presents a policy framework to address these risks to people and the developed, historic and natural environment in a sustainable manner. In doing so, an SMP is a high-level document that forms an important part of the Department for Environment, Food and Rural Affairs (Defra) strategy for flood and coastal defence (Defra, 2001). The plan provides both broad scale assessment of these risks but also quite specific advice to operating authorities in their management of defences. Through this and through the identification of issues covering a wide spectrum of coastal interests, the SMP supports the Government's aims, as set out in Defra's strategy "Making Space for Water" (Defra 2005):

- To reduce the threat of flooding and coastal erosion to people and their property; and
- To deliver the greatest environmental, social and economic benefit, consistent with the Government's sustainable development principles.

This SMP2 document, developed on behalf of The North East Coastal Authorities Group (NECAG), sets out the results of the first revision to the original Shoreline Management Plans for the area of coast extending from the River Tyne south to Flamborough Head. This SMP2 collates information from the three original SMPs (SMP1) for sub-cells 1b, 1c and 1d.

1.1.1 Principles

The SMP is a non-statutory policy document for coastal defence management planning. It takes account of other existing planning initiatives and legislative requirements, and is intended to inform wider strategic planning. It does not set policy for anything other than coastal defence management. However, from this perspective, it aims to provide the context to, and consequence of management decisions in other sectors of coastal management.

The SMP promotes management policies for a coastline into the 22nd Century that achieve long-term objectives without committing to unsustainable defence. It is, however, recognised that due to present day objectives and acceptance, wholesale changes to existing management practices may not be appropriate in the very short-term. Consequently, the SMP provides a timeline for objectives, policy and management changes; i.e. a 'route map' for decision makers to move from the present situation towards the future.

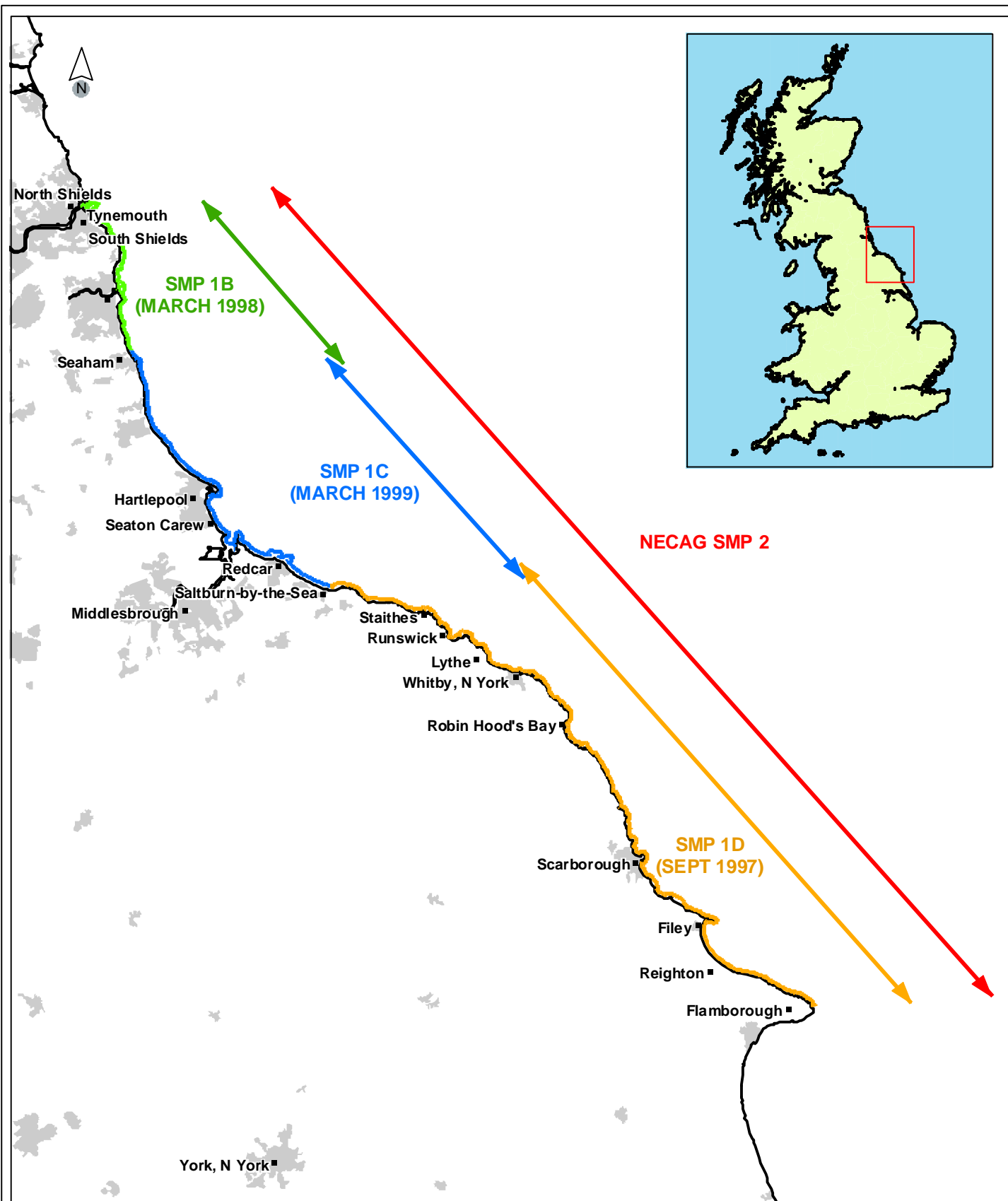
The original SMPs for this area were completed in 1998, 1999, and 1997 working from north to south along the coast. Since that time more detailed

strategy studies have been undertaken over large sections of the coastline and these, together with academic research and monitoring by the Coast Protection Authorities, have improved our understanding of how the coast behaves. In addition many lessons have been learnt with respect to how the SMP should be conducted and indeed how we should be viewing the management of the shoreline. Defra (2001, 2003) undertook a review of the results from SMP1 considering their strengths and weaknesses. This has led to revised guidance. Some of this guidance is targeted at achieving greater consistency in the assessments and presentation of the plans, but there are more fundamental issues that have been identified, which this and other SMP2s must address.

One significant issue is the inappropriateness of certain policies which, when tested in more detail with a view to being implemented, may be found to be unacceptable or impossible to justify; either in terms of economics or from a perspective of what communities need from the coast. It is, therefore, important that the SMP must be realistic given known legislation and constraints; not promising what cannot be delivered but neither delivering in the broader perspective that which fails against the values of the coastal zone. There will be no value in a long-term plan which has policies that are driven by short-term politics or works that prove to be to the detriment of the area when considered several years in the future.

Equally, the plan must also remain flexible enough to adapt to changes in legislation, politics and social attitudes. The plan, therefore, considers objectives, policy setting and management requirements for 3 main epochs; from the present day, medium-term and long-term, corresponding broadly to time periods of 0 to 20 years, 20 to 50 years and 50 to 100 years respectively. There is a need to have a long-term sustainable vision, which may change with time, but should be used to demonstrate that defence decisions made today are not detrimental to achievement of that vision.

The plan covers an area both of significant environmental value, but also having a strong history of human settlement and present use. These uses and interests are not inherently opposed. In reality it is the natural attraction combined with the historical coastal use which gives this area of the coast its distinct and considerable value to man in the present day. While individual core objectives or aims may, therefore, be set, and indeed are set, with respect to each specific aspect of the area, the aim of the SMP2 must be to develop policy where, as far as possible, these specific objectives are not set in conflict. The underlying principle for the development of the plan has been to consider the specific circumstance of the differing sections of the coast and through this understanding, attempt to deliver greatest benefit to the totality of coastal communities in an area.



Key:

Title:
Extent of Study Area

Figure:
1.1

Project:
SMP2 River Tyne to Flamborough
Head
Client:
North East Coastal Authorities Group

Date:
March 2006

Scale:
1:650,000

Source:



1.1.2 Objectives

The objectives of the SMP process (as distinct from the objectives for management of the coast) are as follows:

- To provide an understanding of the coast, its behaviour and its values.
- To define, in general terms, the risks to people and to the developed, natural and historic environment within the SMP area over the next century.
- To identify the likely consequence of different management approaches and from this;
- To identify the preferred policies for managing those risks or creating opportunity for sustainable management.
- To examine the consequences of implementing the preferred policies in terms of the objectives for management.
- To set out procedures for monitoring the effectiveness of the SMP policies.
- To inform others so that future land use and development of the shoreline can take due account of the risks and preferred SMP policies.
- To comply with international and national nature conservation legislation and biodiversity obligations.

1.1.3 Policies

The generic shoreline management policies considered are those defined by Defra; they are represented by the statements:

- **No active intervention:** a decision not to invest in providing or maintaining defences.
- **Hold the line:** maintain or change the level of protection provided by defences. This would include work or operations carried out in front of the existing defences or where, while maintaining existing defences, policies involve operations to the back of defences (such as secondary flood defences) as an essential part of maintaining the current defence system.
- **Advance the line:** build new defences seaward of the existing defence line where significant land reclamation is considered.
- **Managed realignment:** by allowing the shoreline to move backwards or forwards with management to limit or control change.

In addition, generally as components of an overall managed realignment policy developing over the period of the SMP, two further policies are identified to help clarify management policy covering the different epochs covered by the full period of the SMP.

- **Retreat:** allowing the shoreline to move landward to a position where a natural or managed defence line may be established.

- **Hold the line on a retreated alignment:** maintaining a defence line set back from the existing line of defence.

(Note: all the above policies will need to be supported by strategic monitoring and must, when implemented, take due account of existing Health and Safety legislation.)

This defines the level of detail required by the plan. However, in developing these generic policies there is also a basic requirement to state the intent of the policy such that it is the intent, not the definitions given above, that drive future management.

1.2 Structure of the SMP

The preferred plan and policies presented in this SMP are the result of collating information from numerous studies and the assessments of how the coast may perform. There is, therefore, a need to draw these threads together to provide clarity for different readerships. To this end, the documentation to communicate and support the plan is provided in a number of parts. At the broadest level these are divided into two; the Shoreline Management Plan itself, and a series of supporting appendices. In addition, information is collated in a database linked to a geographical information system (GIS), allowing information to be taken forward in implementing the plan.

1.2.1 Shoreline Management Plan Report Structure

This document provides the plan for the future and the policies required for this plan to be implemented. This is intended for general readership and is the main tool for communicating the intention of future management. Whilst the justification for decisions is presented, it does not provide all of the information behind the recommendations, this being contained in other documents. The plan is presented in seven parts:

- Section 1 gives details on the principles, aims, structure and background to the development of the plan.
- Section 2 provides details of how the SMP meets the requirements of a Strategic Environmental Assessment (SEA).
- Section 3 presents the basis for development of the Plan, providing a broad overview of the Plan area, describing the concepts of sustainable policy and providing an understanding of the constraints and limitations on adopting certain policies.
- Section 4 It has been frequently stated that there is as much value in the thought process of developing the SMP as there is in the actual policies themselves. This section, therefore, aims to lead the

reader through this process. The section starts with a discussion of large segments of the coast (called Policy Development Zones; PDZ). Within these zones the coast is described and the way in which the coast might behave, if present management is continued into the future or if no further defence work was undertaken, explained. This is then discussed in relation to the objectives for management and the individual policies for sections of the coast derived (Policy Units; PU). These units are finally grouped in to areas of management (Management Areas; MA), pulling together policy units which have a basic interdependency. For each Management Area statements are prepared setting out a summary of the intent, the necessary actions over different time scales, and the impacts of the preferred policies. Starting from an initial 12 Policy Development Zones, the coast is defined by 99 Policy Units which are drawn together as 33 Management Areas.

Section 5 brings together the overall plan, highlighting important issues in relation to the future management of the coast.

Section 6 provides a very brief summary of policies. It is appreciated that many readers will focus upon the local conclusions of the SMP. However, it is important to recognise that the SMP is produced for the coast as a whole, considering issues beyond specific locations. Therefore, this summary should be read in the context of the wider-scale issues and policy implications, as reported and developed in Section 4 and supported by information in the Appendices.

Section 7 Following consultation on the draft plan, an action plan is developed, providing a programme for future activities which are required to progress the Plan between now and its next review in 5 to 10 years time. A summary of this action plan for each Management Area is presented in Section 4 within the Management Area statements.

1.2.2 The Supporting Appendices

The accompanying documents provide all of the information required to support the plan. This is to ensure that there is clarity in the decision-making process and that the rationale behind the policies being promoted is both transparent and auditable. This information is largely of a technical nature and is provided in ten Appendices:

A. SMP Development: This reports the history of development of the SMP, describing more fully the plan and policy decision-making process.

- B. Stakeholder Engagement: Details of the stakeholder involvement process are provided here, together with information arising from the consultation process.
- C. Baseline Process Understanding: Includes baseline process report, defence assessment, No Active Intervention (NAI) and With Present Management (WPM) assessments and summarises data used in assessments.
- D. Natural and Built Environment Baseline (Thematic Review): This report identifies the environmental features (human, natural, historical and landscape) in terms of their significance and how these need to be accommodated by the SMP.
- E. Issues and Objective Evaluation: Provides information on the issues and objectives identified as part of the Plan development, including appraisal of their importance.
- F. Water Framework Directive Assessment: This report provides an overview of how the WFD has been considered in the preparation of the SMP.
- G. Scenario Testing: Presents the policy assessment and appraisal of objective achievement for the No Active Intervention scenario and the Preferred Plan.
- H. Economic Appraisal: Presents the economic analysis undertaken in support of the Preferred Plan
- I. Estuary Assessment: Examines the need or extent to which estuaries are included within the SMP2 process. Provides a record of the bibliographic and metadata information.
- J. Sets out the support information for an Appropriate Assessment of the Shoreline Management Plan.
- K. The Metadatabase, GIS and Bibliographic Database is provided to the operating authorities on CD.

1.2.3 GIS and Databases

The SMP2 provides a future management framework. It is accepted that our understanding of the coast can be improved, addressing the many areas of uncertainty that we are presently confronted with. There will also be changing circumstance not only as the coast evolves but as our use of the coast changes. During the development of the SMP, information on issues, on processes and our assumptions with respect to different aspects, such as the condition of defences or erosion rates, have been recorded.

This information is held within databases linked through to a Geographical Information System (GIS). This system is provided in association with the actual plan so that, as new information emerges, this may be used to update the management system. The intent is two-fold. First, that information is recorded and may be compared with our existing knowledge such that better informed management decisions can be made as management of the coast continues. Secondly, that at such a time that the SMP requires review, hard won information is readily available to this review process.

One important feature of this information is in the responses and issues which were raised during the consultation process. This data is recorded in the issues, features and objective database used for developing and appraising policy. Management of this information will help those managing the coast in the future to identify issues at a local scale, ensuring that views can be readily identified during the actual implementation of the Plan. The degree of effort all consulted have put in to developing the Plan is fully appreciated. The storage of issues information should help ensure that people's concerns are recognised in the future.

1.3 The Plan Development Process

1.3.1 The Need for Revision

The original SMP1s for the area were completed during 1998 for sub-cell 1b, 1999 for sub-cell 1c and 1997 for sub-cell 1d. It has always been recognised that part of the shoreline management plan process is that plans should be reviewed on a regular basis. The review undertaken through SMP2 has been part of this process.

Very much initiated by the findings of the SMP1, a considerable effort has been put in place over the last five years to ensure that we have been in a better position to make judgements with respect to the coast. There have also been changes in legislation and guidance. In this first revision, therefore, the development of the Plan has been able to draw upon and has had to take account of:

- Latest studies and modelling undertaken since the last SMP such as that provided by Futurecoast.
- Issues identified by most recent defence planning (i.e. the several coastal defence strategy plans which have now been produced to cover most of the SMP area between the River Tyne and Flamborough Head).
- Changes in legislation (e.g. the EU Directives, the emerging guidance with respect to the Water Framework Directive).
- Changes in national flood and coastal defence planning requirements (e.g. the need to consider 100 year timescales in future planning, modifications to economic evaluation criteria etc.).
- The emerging thinking on Integrated Coastal Zone Management.

The period between the development of SMP1 and SMP2 has, therefore, been one of quite rapid change. With the manner in which the SMP2 has now been organised and the further understanding that has been developed, shoreline management has to be seen as an ongoing process providing a platform for more local decision making, it is anticipated that subsequent reviews may be undertaken in 10 years time. This timescale would ultimately be driven by the scale in change on the coast itself.

1.3.2 Review and Development Procedure

Since the production of SMP1, the North East Coastal Authorities Group (NECAG) has always been a broadly based body acting to co-ordinate management of the coast. This group comprises representatives from Scarborough Borough Council (Lead Authority), Redcar & Cleveland Borough Council, South Tyneside Municipal Borough Council, East Riding of Yorkshire Council, Easington District Council, Hartlepool Borough Council, Sunderland City Council, English Nature, Environment Agency and Defra. In addition to these parties, the SMP2 Project Management Group (PMG) has also included the North York Moors National Park Authority, the National Trust, the Local Government Association and Royal Haskoning.

The SMP development process has sought involvement from over 400 organisations or individuals, with principal periods of consultation being conducted during December 2004 and April 2005, with consultation on the draft Plan being undertaken over the period between July and September 2006.

The main activities in producing the SMP have been:

- development and analysis of issues and objectives for various locations, assets and themes
- thematic reviews, reporting upon human, historic and natural environmental features and issues, evaluating these to determine relative values of the coast
- analysis of coastal processes and coastal evolution for baseline cases of not defending and continuing to defend as at present
- agreement of objectives with the NECAG and through public consultation, and from this determining possible policy scenarios
- development of policy scenarios which consider different approaches to future shoreline management
- examination of the coastal evolution in response to these scenarios and assessment of the implications for the human, historic and natural environment
- determination of the preferred plan and policies through review with the PMG, prior to compiling the SMP draft document
- consultation on the proposed plan and policies
- consideration of responses and finalising the SMP
- dissemination of the findings and policy contained within the Plan.