



Directorate of Economy and Environment
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Isle of Wight Shoreline Management Plan 2

Appendix A SMP Development

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**Coastal Management;
Directorate of Economy & Environment, Isle of Wight Council**

Appendix A -SMP Development

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The Supporting Appendices

This appendix and the accompanying appendices provide the supporting documentation for the Shoreline Management Plan. These documents illustrate the process undertaken in development of the final management policies and are included to ensure that there is clarity and transparency in this process. The appendices are as follows:

Appendix A – SMP Development

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

Appendix B – Stakeholder Engagement

This outlines the various stages of stakeholder involvement in the SMP process and summarises the findings of the stakeholder consultation at each stage.

Appendix C – Baseline Process Understanding

Includes baseline processes report, defence assessment and explanation of how sea level rise and climate change have been accommodated within these assessments.

Appendix D – Natural and Built Environment Baseline (Thematic Review)

This report identifies and evaluates the environmental features (human, natural, historical and landscape).

Appendix E – Issues and Objectives Evaluation

This provides the table of issues and objectives identified through the consultation process and Appendix D and describes how these were used in developing the SMP.

Appendix F – Strategic Environmental Assessment

Provides a systematic appraisal of the potential environmental consequences of high-level decision-making.

Appendix G – Scenario Testing

Presents the results of the No Active Intervention scenario and the Preferred Plan in terms of achievement of objectives.

Appendix H – Economic Appraisal

Presents the economic analysis undertaken in support of the preferred plan.

Appendix I –Habitat Regulations Assessment - Appropriate Assessment

The appendix sets out the findings of the Appropriate Assessment of the Plan.

Appendix J - Water Framework Directive (WFD)

Presents the Water Framework Directive assessment developed with respect to the SMP2 policies.

Appendix K – Reference list and bibliographic database

All supporting information used to develop the SMP is referenced for future examination and retrieval.

Appendix L - Information to the Secretary of State according to Regulations 49(5) and 51(2) of the Habitats Regulations.

Appendix M Statement of Environmental Particulars

A1 Introduction

This appendix provides a full explanation of the Shoreline Management Plan (SMP) process adopted and description of the policy decision-making process and outlines the chronology of the SMP development.

A1.1 What is the Shoreline Management Plan?

A Shoreline Management Plan (SMP) provides a large-scale assessment of the coastline, including the risks to the developed, historic and natural environment associated with coastal evolution. This presents a policy framework to address these risks in a sustainable manner.

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 is important to note that 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.

A1.2 Background to the Isle of Wight SMP

The coastline of the Isle of Wight was previously assessed by the Isle of Wight Council, Environment Agency and Halcrow in 1997, during the first round of SMPs. Based upon the guidance at the time, policies were defined for a 50 year period.

A1.3 The SMP Review (SMP2)

Recognising the need for review of the existing SMP policies, the Isle of Wight Council formed a steering group bringing together the key agencies involved. The development of the SMP2 has been led by the steering group (called the Client Steering Group or CSG) which for this sub-cell comprises representatives from the two operating authorities (voting members) with associate partners and several key stakeholders (non-voting members). The operating authorities are the Isle of Wight Council -Coastal Management (Lead Authority) and the Environment Agency. The associate partners include Natural England and English Heritage. Due to the unique nature of the IW SMP, with a limited number of Operating Authorities covering a wide area, several key stakeholders were also included as part of the CSG to ensure the information used in the development of the plan was accurate and to provide regular stakeholder input. These include: National Trust (significant landowner); Isle of Wight Council Planning Policy, Ecology and the IW Archaeological Centre; and also the IW Estuaries Officer (from a partnership including Cowes Harbour Commissioners and Yarmouth Harbour Commissioners). Together with the appointed Consultants, Royal Haskoning, the CSG have managed the necessary stages of the SMP2 process to produce this management plan. The review was commissioned to take account of:

- Coastal Strategies and studies undertaken since the previous SMP;
- Revisions to the Defra Procedural Guidance for SMPs (including the need to define policy for 20, 50 and 100 year timeframes); and
- Changes in legislation such as the Water Framework Directive and the Habitats Directive.

A2 Project Information

A2.1 SMP Background

This SMP is an update of the SMP1 originally produced by Halcrow. The plan has been developed and produced in accordance with the latest Procedural Guidance (PG) for the production of SMPs (Defra).

A2.1 Client Steering Group

The coastline covered by this plan comes within the boundary of one local authority. They and the Environment Agency have certain permissive powers for defending the coast. The local authority generally deals with defences that protect the coast from erosion by the sea and the Environment Agency deal with flood risk management. Together they are required to produce an SMP for sustainable coastal defence management. This is achieved through the SMP CSG comprising representatives from the local authority, the Environment Agency and other key bodies. The key bodies included Natural England, who provide guidance on nature conservation, National Trust and English Heritage, who provide guidance on heritage issues. Defra, with delivery by the Environment Agency, have overall policy responsibility for flood and coastal risk in England including producing guidance and grant aid funding of the SMP.

The SMP was procured and lead by the Isle of Wight Council and the following representatives made up the core members of the CSG:

Membership of the CSG for Isle of Wight SMP2:

- Coastal Management, Isle of Wight Council -Peter Marsden –Acting Coastal Manager, and Jenny Jakeways –SMP lead;
- Environment Agency –Gary Lane, Tim Kermode and Tim Sykes;
- Royal Haskoning (Consultant) –Tara-Leigh Eggiman (lead), Greg Guthrie, Lizzie Jolley and Colin Toovey
- Natural England -Claire Lambert, Tom Schindl;
- Planning Services, Isle of Wight Council -Chris Mills;
- Countryside Section, Isle of Wight Council -Colin Pope;
- Estuaries Officer –Sue Hawley;
- National Trust –Tony Tutton;
- English Heritage –Peter Murphy;
- Isle of Wight Archaeological Unit –Rebecca Loader;
- Area of Outstanding Natural Beauty –Tony Tutton.

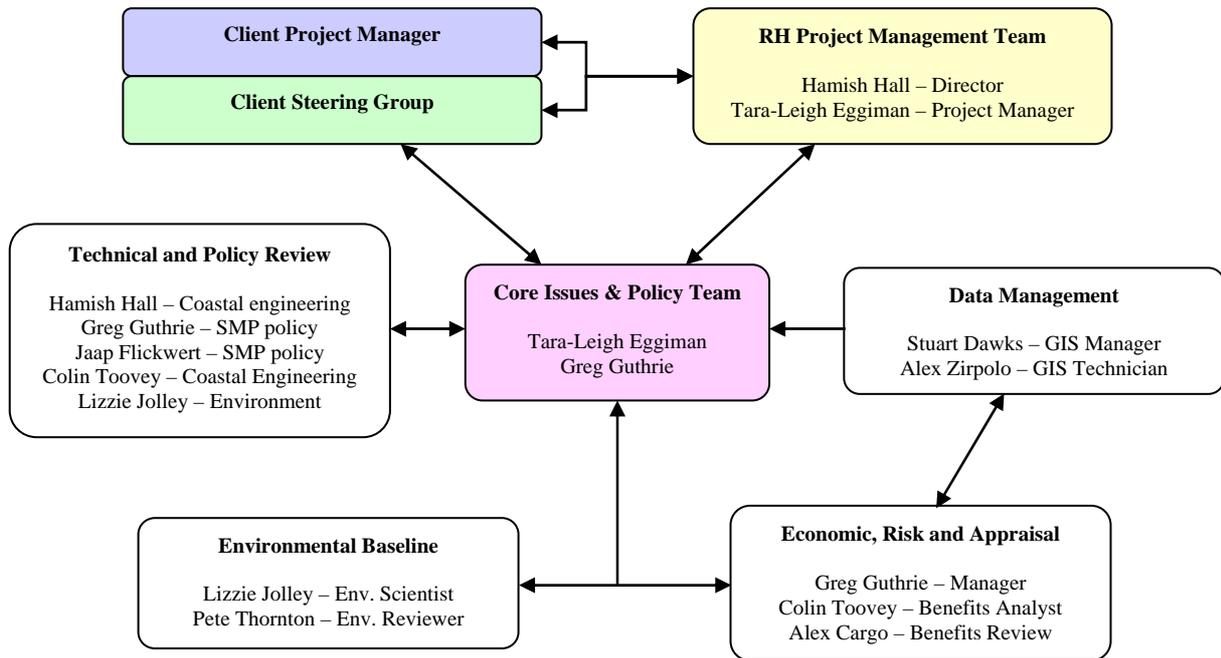
It was agreed that the Isle of Wight Council would be the lead authority on behalf of the Client Steering Group (CSG) and as such were responsible for the financial management of the project, including grant aid submission and overall project administration. It was also agreed that the Isle of Wight Council would take on the responsibility of coordination of consultation activities. The CSG had overall responsibility for the delivery of the SMP and were involved throughout the development of the plan through review and guidance of work undertaken. The group will also oversee implementation of the SMP.

A2.3 The Consultant

Royal Haskoning was commissioned by the Isle of Wight Council to undertake the preparation of the SMP, alongside staff of the Isle of Wight's Coastal Management team.

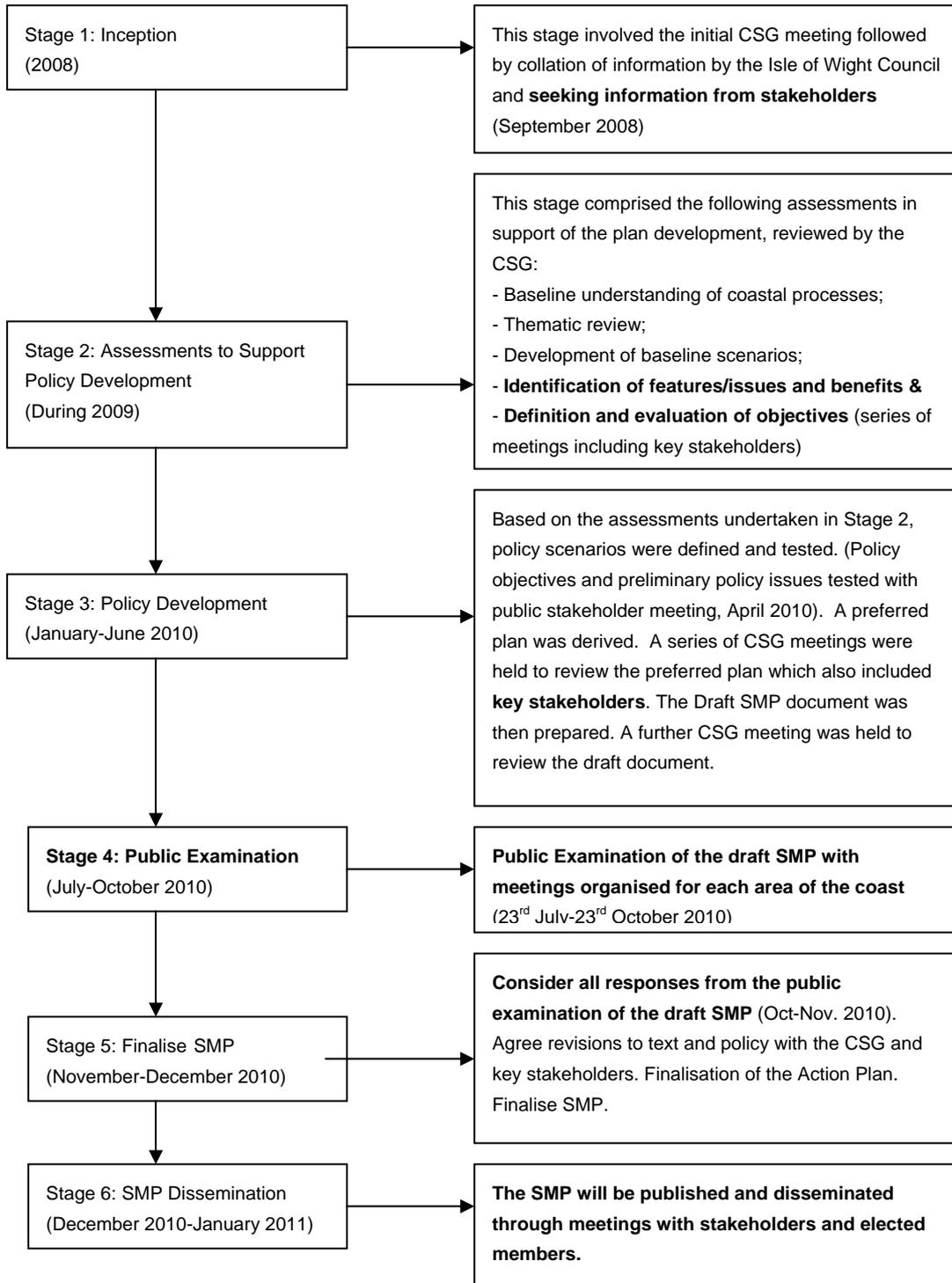
Royal Haskoning's team structure is set out below. There was a core team of two to ensure coherence throughout the project. Around this team, and incorporating as appropriate the

specific skills of this core team, is the project management team, the review group and specialist groups.



A3 SMP Programme

The following figure illustrates the different stages of the SMP process and indicates in bold where stakeholder consultation and contribution occurs.



A4 Stage 1: SMP Scope

A4.1 SMP Boundaries

This SMP relates to the Isle of Wight coast on the south coast of England.

A4.2 Stakeholder Engagement Strategy

The stakeholder engagement for the SMP was coordinated by the lead authority the Isle of Wight Council. The a group of stakeholders were identified comprising representatives from groups with local, regional and national interest in addition to site specific interests. Such a group was selected to try to achieve a 'holistic' consultation approach, taking consideration of all interests in the coast:

Stakeholder representatives included:

- Local Authority (Unitary Authority)
- Town Councils
- Parish Councils
- Major coastal landowners
- Residential Interest Groups
- Commercial interests
- Conservation bodies eg. National Trust
- Recreational groups
- Cultural and historic interest groups eg. English Heritage

The first generation of SMPs and subsequent Strategies identified most of the key stakeholders and these were collated into a database of names, organisations and contact details. Additional stakeholders were added to the group throughout development of the SMP.

Throughout the SMP process the webpage www.coastalwight.gov.uk/smp has been established. All documents have been posted on this webpage with feedback details for all members of the public to provide comments, including a dedicated e-mail address of smp@iow.gov.uk.

A4.3 Data Collection

Data collection was undertaken by the Isle of Wight Council. Data was collected from a variety of sources including stakeholders, local authorities, literature searches and web searches.

Key data sources included:

- Data from existing SMP and Coastal Defence Strategies (final and draft)
- Sediment Transport Study (SCOPAC, 2004)
- Future Coast

Base data:

- Ordnance Survey data

Defence data:

- Defence Appraisal for the IW coast and estuaries, updating previous information from the Coastal Protection Survey and Strategy Studies for use in SMP2.
- National Flood and Coastal Defence Database (provided information for the Estuaries)

Thematic data:

- Natural England
- English Heritage
- Nature Conservation Designation information
- Studies/reports
- Site visits
- LDF Local Plans (including the SFRA)

Local and regionally specific data:

- Strategy Studies
- Local Plans
- Stakeholder questionnaires and supporting information
- Technical reports

All of the data used in developing the SMP is referenced and recorded in the bibliographic database in Appendix K.

A5 Stage 2: Assessments to Support Policy Development

A5.1 Baseline Understanding of Coastal Behaviour and Dynamics

(a) Assessment of coastal processes and evolution

A desktop baseline review of coastal processes was produced using existing data (refer Appendix C1). The baseline review includes statements on sediment sources, transport and sinks control and hydrodynamic interactions, shoreline movement and predictions of shoreline evolution. It underpins coastal process understanding of the study area and is the basis for the development of the baseline scenarios.

(b) Assessment of coastal defences

Coastal defence data was collated and generated from Isle of Wight Council records and from the National Flood and Coastal Defence Database where available (refer Appendix C2). This includes assessing the residual life of each existing defence structure.

A5.2 Baseline Scenarios

To assist in the development of future policy, future coastal response was assessed, assuming the following two baseline scenarios (refer to Appendix C3):

- 'No Active Intervention' (NAI) for which it is assumed that existing defences are no longer maintained and will deteriorate and fail with time or undefended frontages will evolve naturally; and
- 'With Present Management' (WPM) for which it is assumed that defences are maintained to provide at their current standard of protection.

These assessments provide an understanding of the influence of defences on coastal behaviour and evolution.

These findings of the baseline scenarios were developed from the baseline processes report and the defence data. In addition, key references included Futurecoast, Strategy studies, key reference sources and the existing SMP.

- The study frontage was divided into a number of areas, based on coastal processes, guided by SMP1 and the Strategy Studies, and shoreline behaviour was estimated for the three future epochs of 20, 50 and 100 years (taking sea level rise into account).
- The predicted shoreline positions for the three epochs were mapped in a GIS.
- Summary statements were produced for both 'No Active Intervention' and 'With Present Management' outlining the estimated erosion rates and the residual life of the defences that the estimated shoreline position was based upon.
- The mapped shoreline positions show the estimated maximum extent of change and are a combination of evidence from monitoring or comparison of historical information together with geomorphological interpretation. Further information is provided in Appendix C3.

A5.3 Definition of Features, Benefits and Issues

(a) Natural and Built Environment Baseline (Thematic Review)

In the first instance, many of the important features along the coastline were identified during the theme review. The theme review involved drawing information from the existing SMP and particularly newly procured data regarding the following themes:

- Landscape and nature conservation;
- Historic environment; and
- Current and future land use.

The full Natural and Built Environment Baseline is included in Appendix D.

From this baseline, features of historical, cultural, recreational and environmental value were identified and mapped on GIS. For the purposes of the SMP a feature was defined as *'something tangible that provides a service to society or benefits society by its existence'*.

It was essential to first identify the features on the coast in order to be able to then identify the 'issues' or concerns relating to these features and subsequently develop 'objectives' or what we are aiming to achieve or support through the development of shoreline management policies. Further information on the definition of features and issues is provided in Appendix E.

(b) Stakeholder Consultation

The first round of stakeholder consultation was utilised to not only inform the stakeholders of what the SMP process entailed, but also to find out from them what 'features' they valued on the coast and any 'issues' or concerns they had. This was undertaken by collecting responses to a questionnaire sheet (refer to Appendix B).

(c) Issues Table

From the theme review and the stakeholder consultation, the Issues table was developed (refer to Appendix E). The Issues table outlines the following elements:

- Location
- Feature
- Issues associated with feature
- Is it a flood and coastal defence issue?
- Does this issue affect policy?

The Issues Table was issued to the CSG for review.

A5.5 Definition of Objectives

The next stage was to use the features, issues and benefits identified to define objectives within the context of the characterisation of the coast. The objectives were aimed to state simply and succinctly what we aimed to achieve with regard to each feature through the coastal defence management policies.

Consultation with the CSG including English Heritage, Natural England and planning, archaeology and ecology officers from the Isle of Wight Council and the Estuaries officer was undertaken to ensure that the SMP objectives were consistent with other aspirations for the coast.

Objectives are used in two ways within the development of the SMP; first to guide the selection of policy options (the reasons for management), the second at the end of the process to assess the degree to which any SMP policy scenario delivers aim of the SMP.

A5.4 Identification of Flood and Erosion Risks

The mapping of predicted shoreline change for the 'No Active Intervention' scenario was used as a baseline against which features at risk from coastal flooding and erosion were identified. This approach highlighted what features were potentially at risk in 0-20 years, 20-50 years and 50-100 years.

A5.5 Assessment of Objectives

To gain further appreciation of the priority level of the objectives generated, six fundamental questions were addressed:

- What are the Benefits? / Why is the issue important?
- Scale of importance? Local, regional, national or international.
- Who are the beneficiaries?
- What could affect the features value /sustainability? What threats are there?
- Is there enough of this benefit? The scarcity of the benefit at the scale at which it is important.
- Is there potential for substitution of the benefit?

The answers to these questions were determined from the theme review and were taken back to the CSG (including key stakeholders) for review, discussion and confirmation.

While it is clearly possible to prioritise objectives in certain ways within themes, such as in the effective hierarchy defined by international, national or local environmentally designated sites, due to the nature of the coast; its relatively distinct nature, such a crude reflection of priority was not fully helpful. Such an approach, it was felt would not give due weight to the often quite local issues on the coast.

Such weighting was also found to be difficult in assessing objectives across themes, i.e. one town can be compared to another town, but the importance of a town can not be directly compared to that of a designated conservation site.

In many ways, such a strict approach could engender conflict rather than attempt to resolve issues to mutual benefit. There is close interaction between the themes. For example, natural eroding cliffs provide sources of sediment to the coastal system and maintain geological exposures. However, if properties, business or listed structures are at risk from that erosion, a conflict between two themes may arise. To address this the development of policy needed to be taken from a very holistic perspective; one that could only really be achieved through considering an area's values and aims in a complete way, before examining how different policies might be applied to deliver that overall value. This also implied that consideration of policy needed to be taken to a relatively high level of detail. At the same time it was essential that the overall broader picture was maintained.

A5.6 Characterisation of the coast

An important step in this development was to gain an appreciation of the overall character of different areas of the coast. This would then set the broad context or overarching principles within which more specific objectives for coastal defence management could be sensibly developed and considered. A characterisation of the coast was, therefore, prepared on the basis of the theme review (including local planning documents and the consultation responses)

and the baseline understanding (Stage 2). The characterisation of the coast comprised a general description and derivation of key values for an area. In addition, the key environmental and heritage designations were identified, together with an initial identification of features at risk based on a policy of no further intervention. A brief assessment was also considered as to the degree to which the coast wishes to change and the inherent pressure any intervention on the coast would bring about. The characterisation developed a series of several 'Policy Development Zones' discussed below and presented in Section 4 of the SMP2, reviewed by the CSG and key stakeholders.

A5.7. Mapping

Figures produced in the SMP2 are derived from mapping within a GIS system. Current mapping available to contribute to the study was provided in 2009 and 2010. A series of maps have been generated during the preparation of SMP2.

The GIS presents data at different scales of mapping, appropriate to the scale being viewed. However, for consistency all mapping of information has been carried out based on the 1:10,000 baseline maps. Further details are provided in the separate Appendices.

A6 Stage 3: Policy Development

A6.1 Definition of Policy Scenarios

In developing policy, a nested approach was taken, maintaining the overview, while still addressing usefully the more local issues in setting policy. The approach looked to define overarching aims, in part from the characterisation, over certain sections of the coast through which more detailed policies may be developed for shorter sections of the coast.

The two baseline scenarios of 'no active intervention' and that of continuing 'with present management' were used to explore where specific issues and objectives were or were not being addressed. This consideration was undertaken at a relatively high level within relatively long sections of the coast (called for convenience Policy Development Zones).

From this initial analysis primary drivers or controls were identified; where evident, and the basic interactions established. In many cases this then allowed quite obvious policies to be derived. However, where this was less clear, specific alternative scenarios were considered often at a more detailed level. Consideration of these scenarios has then been argued such that a preferred approach to management of the coast emerged. From this individual policy units were then defined. This discussion and development process is provided in Section 4 of this SMP2.

The approach applies the basic principles set out in the SMP2 Guidance:

- The process is clearly objective led.
- That the definition of policy and policy units is taken at the end of the analysis process, not predefining units at the start.
- That distinction is made relevant to each specific area of the coast as to prioritising objectives and that an initial screening process was undertaken at a high level to ensure essential objectives were considered initially.
- That, while able to consider the detailed issues important to direct coastal management, the broader picture of how the coast functions was maintained.

A6.2 Policy Scenario Assessment

The final stage of the policy development was a detailed assessment of the policies in relation to the individual objectives. In association with this, economic data was obtained using the MDSF system and this together with information from various Strategy studies was assessed to consider the economic cost effectiveness of the preferred policies.

The whole process maintains the broader awareness of how the coast as a whole is behaving and how policy may be used to develop a sustainable shoreline management approach in the future.

A7 Stage 4: Public Examination

Following the preparation and initial agreement to the Draft SMP2, the public consultation process took place over a period of 3 months from 23rd July to 23rd September 2010.

The draft plan together with supporting information was available on the SMP2 website and at key locations around the Isle of Wight.

All stakeholders were notified of the consultation process and, following notices in the local press, roadshow exhibitions were held to present the plan and allow discussion of the plan.

Responses were collated from the roadshows and comments received during the consultation period.

The consultation report forms part of Appendix B.

A8 Stage 5: Finalise Plan

The issues raised through the consultation on the Draft SMP2 are identified in the consultation report in Appendix B (Annex 17). These issues were assessed and revisions made, as recorded in Appendix B (Annex 17).

With these amendments made, the SMP2 was finalised in agreement with the CSG. The Draft and Final Plans were formally reviewed alongside other national SMPs.

Final dissemination of the findings of the plan will be undertaken. The SMP2 was adopted by the Isle of Wight Council on 8th December 2010 and by the Regional Flood Defence Committee on 1st December 2010. The SMP then forms the basis for a consistent programme of future Strategy Studies and schemes which will be developed to address future flood and erosion risks on the Isle of Wight.