

Appendix A SMP2 Development

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The Supporting Appendices

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

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

Details of how stakeholders have been involved in the SMP process are provided together with information arising from the consultation process.

Appendix C – Baseline Process Understanding

Includes estuary assessment, 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 the environmental features (human, natural, historical and landscape) in terms of their significance and how these need to be accommodated by the SMP.

Appendix E – Issues and Objective Evaluation

Provides information on the issues and objectives identified as part of the Plan development.

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 policy assessment and appraisal of objective achievement for the No Active Intervention scenario and the Preferred Plan.

Appendix H – Economic Appraisal

Presents the economic analysis undertaken in support of the Preferred Plan.

Appendix I – Habitats Regulations Assessment information

Sets out the support information for a HRA of the SMP.

Appendix J – Water Framework Directive (WFD):

Presents the WFD assessment as developed by the Environment Agency with respect to the SMP policies.

Appendix K – Metadatabase and Bibliographic database

A Metadatabase, GIS Viewer and Bibliographic record is provided to the operating authorities on CD.

Appendix L – SMP Adoption

Evidence of the formal adoption of the SMP2, by the operating authorities and the associated partners.

A1 Introduction

This appendix provides a full explanation of the Shoreline Management Plan (SMP2) process adopted and description of the policy decision-making process and outlines the chronology of the SMP2 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 consequences of management decisions in other sectors of coastal management.

A1.2 Background to the Cornwall and Isles of Scilly (Sub-cells 6d, 6e, 7a, 7b) SMP2

The coastline between Rame Head to Land's End, Land's End to Hartland Point, and of the Isles of Scilly archipelago was previously assessed during the late 1990s by engineering and environmental consultants Halcrow and Mouchel. This SMP1 process was completed in 1999. Based upon the guidance at the time, policies were defined for a 50 year period. It has always been recognised that the SMPs should be reviewed on a regular basis. The review undertaken through SMP2 has been part of this process.

A1.3 The SMP Review

Recognising the need for review of the existing SMP policies, the Cornwall and Isles of Scilly Coastal Advisory Group (CISCAG) appointed Cornwall Council to be the lead authority (formally Caradon District Council, Penwith District Council, Carrick District Council, Restormel Borough Council and North Cornwall District Council) for the review process. CISCAG formed a Client Steering Group (CSG) comprising representatives from the operating authorities and associate partners.

The operating authorities are Cornwall Council (CC, Lead Authority), the Council of the Isles of Scilly and the Environment Agency. Operating authority is defined as an organisation with legal powers to carry out flood defence or coast protection activities.

The associated partners are Natural England (NE), National Trust (NT) and English Heritage (EH).

The Cornwall and Isles of Scilly SMP2 CSG commissioned consulting engineers Royal Haskoning to revise the SMP for Sub-cells 6d, 6e, 7a, 7b. 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)
- Changes in legislation such as the Water Framework Directive and the Habitats Directive.

Defra, together with the Environment Agency, have overall policy responsibility for flood and coastal risk management in England including producing guidance and grant aid funding of the SMP.

A2 Project Information

A2.1 SMP Background

This SMP is an update of the SMP1s originally produced by Halcrow and Mouchel. The plan has been developed and produced in accordance with the latest Procedural Guidance (PG) for the production of SMPs (Defra March 2006).

A2.1 Client Steering Group

The coastline covered by this plan comes within the boundaries of two local authorities. They and the Environment Agency have certain permissive powers for defending the coast. The local authorities generally deal 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 two local authorities, the Environment Agency and other key bodies.

The key bodies include Natural England, who provide guidance on nature conservation, National Trust and English Heritage, who provide guidance on heritage issues.

The SMP2 was procured and lead by Cornwall Council and the following representatives made up the core members of the CSG:

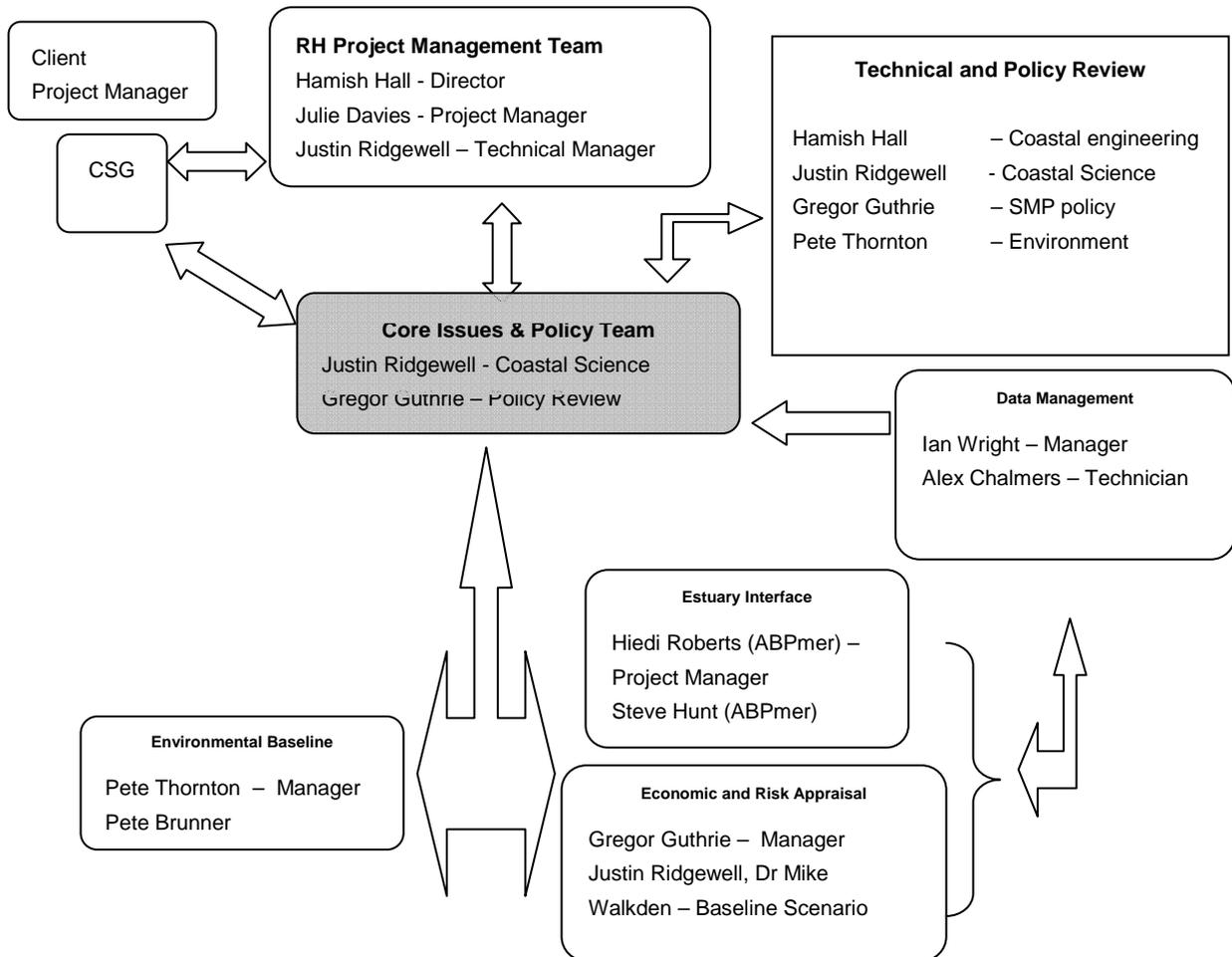
Name	Representing
Martin Clemo	Cornwall Council. Chair of CISCAG and the CSG
Keith Cole (Coast and Country Projects Ltd)	CISCAG Technical Secretary and Client's Project Manager
Steve Schotel	Cornwall Council
Steve Blatchford	
Ann Reynolds	
Jolyon Sharpe	
Jenny Christie	
Simon Lowery	
Julian Payne	
Phil McMahon	
Kevan Cook	
Paul Walton	
Hamish Hall	
Justin Ridgewell	
Julie Davies	
Peter Thornton	
Gregor Guthrie	

Cornwall Council, as lead authority on behalf of CISCAG were responsible for the financial management of the project, including grant aid submission and overall project administration. Project administration was provided for Cornwall Council by Coast and Country Projects Limited (CCPL). As part of this role, CCPL was responsible for the coordination of consultation activities.

The CSG had overall responsibility for the delivery of the SMP2 and were involved throughout the development of the plan through review and guidance of work undertaken. The group will also oversee implementation of the SMP2.

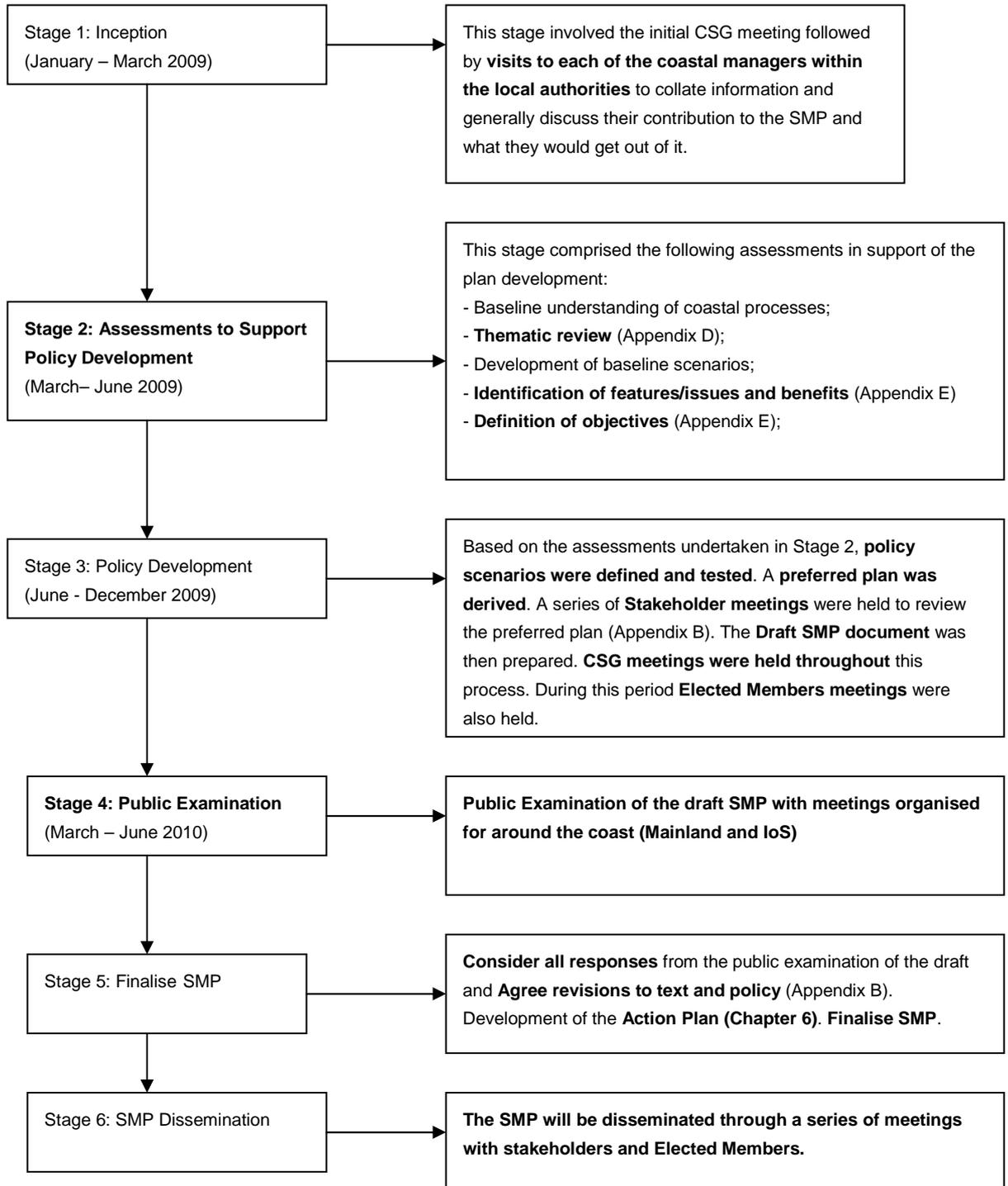
A2.3 The Consultant

Royal Haskoning was commissioned by the CSG to undertake the preparation of the SMP review. Royal Haskoning's team structure is set out below.



A3 SMP2 Programme

The following figure illustrates the different stages of the SMP2 process and indicates in bold where consultation on the developing SMP2 has occurred.



A4 Stage 1: SMP2 Scope

A4.1 SMP2 Boundaries

This SMP2 relates to Sub-cells 6a, 6b, 7a, 7b covering the Cornwall and Isles of Scilly coast, from Rame Head to Hartland Point (A small section of coast at Hartland Point is within the county of Devon).

A4.2 Stakeholder Engagement Strategy

The stakeholder engagement for the SMP2 was co-ordinated by CCPL on behalf of the Lead Authority (Cornwall Council). The stakeholder group comprised representatives from groups with local, regional and national interest in addition to site specific interests including interested individuals. The stakeholder group was self-selecting via member's registering their interest in the development of the SMP2.

Stakeholder representatives included:

- County Councils
- Town Councils
- Parish/Ward Councils
- Residential Interest Groups
- Commercial interests
- Conservation bodies eg. National Trust
- Recreational groups
- Cultural and historic interest groups eg. English Heritage
- Interested individual members of the public

The first generation of SMPs identified most of the key stakeholders and these were collated into a database of names, organisations, positions and contact details. CCPL actively sought to update this list of stakeholders through contacting SMP1 stakeholders and promoting the SMP Review on the CISCAG website (www.cornwall.gov.uk/smp) for anyone to register an interest.

Stakeholders were invited to the first round of consultation which was held in April and May 2009. These events were used to explain the SMP2 process and to obtain information on features that stakeholders regard as valuable assets to the study coastline. Four events were held in total, three on the mainland and one on the Isles of Scilly. Questionnaire responses and comments made during consultation were collated and recorded for input into the development of the Plan.

The second round of stakeholder meetings was held in November and December 2009. This was to present the draft policy choices for the coastline in order to receive feedback from stakeholders before drafting the Preferred Plan. Questionnaire responses and comments made during consultation were collated and recorded for input into the development of the Plan.

Throughout the SMP2 process the webpage www.cornwall.gov.uk/smp has been established. Documents have been posted on this webpage with feedback forms (see below) for members of the CSG to provide comments. Some documents have also been posted for members of the public to review and provide comments.

Client Steering Group and Interested Parties Document Review									
Document Title:		Appendix A - SMP2 Development		Project No.:		9T8801	To be returned to:		
General Comments:				Reviewer:		Royal Haskoning			
Comments									
Page No.	Paragraph	Line	Comment	Name	Date	RH Response	Name	Date	

A4.3 Data Collection

Data collection was undertaken by Royal Haskoning. Data was collected from a variety of sources including stakeholders, local authorities, literature searches and web searches.

Key data sources included:

- Data from existing SMP1s
- Futurecoast (Halcrow)
- South West Region Extreme Tide Level Report (Royal Haskoning/Mott MacDonald 2003)
- Topographic data (Light Detection and Ranging Data (LiDAR))
- Discussions with Local Authority and Environment Agency engineers and planners

Base data:

- OS mapping
- Aerial Photography

Defence data:

- Coastal Protection Survey
- National Flood and Coastal Defence Database (NFCDD)

Thematic data:

- Natural England
- English Heritage
- Nature Conservation Designation information
- Studies/reports
- Site visits
- Local Authority Plans
- Stakeholder questionnaires and supporting information

Local and regionally specific data:

- Strategy Studies
- Local Authority Plans
- Regional Spatial Strategy (draft RSS)
- Technical reports

All of the data used in developing the SMP2 is referenced and recorded in the bibliographic record 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 to Appendix C). 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 from the National Flood and Coastal Defence Database and updated where data from more recent Coastal Strategy studies and inspections were available (refer to Appendix I).

A5.2 Baseline Scenarios

To assist in the development of future policy, future coastal response was assessed, assuming the following two baseline scenarios:

- ‘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 a similar level of protection and defence to that currently provided. These assessments provide an understanding of the influence of defences on coastal behaviour and evolution.

The findings of the baseline scenarios were developed from the baseline processes report and the defence data. In addition, key references included Futurecoast, the South West Region Extreme Tide Level Report, knowledge from stakeholders and local authority engineers and the existing SMP.

- The study frontage was divided into a number of areas, based on coastal processes. Future shoreline position was estimated for the three epochs of 20, 50 and 100 years (taking sea level rise and the lifetime of existing defence structures into account).
- The predicted shoreline positions for the three epochs were mapped in GIS.
- Summary statements were produced for both ‘No Active Intervention’ and ‘With Present Management’ outlining the erosion rates and the residual life of the defences used in the estimations. The summary statements are presented in Appendix C)
- The predicted flood extents for the three epochs (taking account of sea level rise) were mapped in GIS
- The mapped shoreline positions and flood extents show the estimated maximum extent of change and are a combination of evidence from SMP1, Futurecoast Extreme tide level estimations and topographic data together with geomorphological interpretation.

Outputs from the National Coastal Erosion Risk Mapping project were not available to inform this SMP2.

A5.3 Definition of Features, Benefits and Issues

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

Many of the important features along the coastline were identified during the theme review. For the purposes of the SMP2, a feature was defined as:

Something tangible that provides a service to society or benefits society by its existence.

The theme review involved drawing information from the existing SMP and new data regarding the following themes:

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

This process was essential to identify features on the coast in order to then be able to identify the 'issues' or concerns relating to these features. This allowed us to develop 'objectives' (what we are aiming to achieve or support through the development of shoreline management policies) in order to measure our Preferred Plan against.

The full Natural and Built Environment Baseline is included in Appendix E. There are over 1000 features identified in the baseline. From this baseline, features of historical, cultural, recreational and environmental value were identified and mapped in GIS.

(b) Stakeholder Consultation

The first round of stakeholder consultation was utilised to not only inform the stakeholders of the what the SMP2 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 handing out and collecting responses to a question sheet at the consultation meetings (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 outlined 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 released to the CSG and stakeholders for review and contribution.

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.

Further consultation with Historic Environment officers from Cornwall Council and with the National Trust was undertaken to determine the objectives. This was to ensure that

the SMP2 objectives were consistent with other planning documents and aspirations for the coast.

Objectives are used in two ways within the development of the SMP2; 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 the aim of the SMP.

A5.6 Identification of Flood and Erosion Risks

The mapping of predicted shoreline change for the 'No Active Intervention' scenario together with the predicted flood extents, 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?

It is possible to prioritise objectives in certain ways within themes; such as in the effective hierarchy defined by international, national or local environmentally designated site. Due, however, to the linear, distinct and changing nature of the coast such a crude reflection of priority was not particularly 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. This was discussed with the CSG and it was agreed that there was this close interaction between 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 such erosion, a conflict between two themes may arise. To address this, the development of policy needed to be taken from a very holistic attitude; 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 local planning documents, the theme review, discussions with CSG members and the consultation responses. The characterisation of the coast comprised a general description and derivation of key values for an area. In addition, the key environmental 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; the inherent pressure any intervention on the coast would bring about. The characterisation was reviewed by the CSG and commented upon during the consultation period. Refer to Appendix D for the Characterisation of the Coast.

Following the characterisation process, the coastline was spilt up into zones called Policy Development Zones (PDZs). This allowed us to develop policy for sections of the coast one at a time in order to make the process manageable. In determining the boundaries for the PDZs we consulted with the CSG and made sure that there were no significant 'leakages' between zones; this was in terms of coastal processes of erosion and deposition and in terms of the communities that interact with the coast.

A5.7. Mapping

Figures produced in the SMP2 are derived from mapping within the GIS.

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.

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 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 (PDZs) 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 present management were used to explore where specific issues and objectives were not being addressed. This consideration being undertaken at a relatively high level within relatively long sections of the coast (PDZs).

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.

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 is 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, data relating to economic damages and losses caused through flooding or erosion was used to indicate the economic cost effectiveness of the preferred policies.

The policy development process has maintained the broader awareness of how the coast is behaving and how policy may be used to develop a sustainable shoreline management in the future.

A7 Stage 4: Public Examination

Following the preparation and initial agreement to the Draft SMP2, the public consultation process took place from the 16th March 2010 for a period of 3 months, ending on the 17th June 2010.

The draft plan together with supporting information was published on the SMP2 website at www.cornwall.gov.uk/smp

All stakeholders were notified of the consultation process via email and letter (where no email address was registered) and, following notices in the local press, public events were held to allow discussion of the plan. Presentations of the draft plan were given at the following locations:

Event Venue	Date
Falmouth	Tuesday 16 March
Padstow	Wednesday 17 March
Isles of Scilly	Thursday 18 March
Bude	Monday 22 March
Hayle	Tuesday 23 March
Penzance	Thursday 24 March
Looe	Monday 29 March
Mevagissey	Tuesday 30 March
Perranporth	Wednesday 31 March

A number of requests were made from community groups or parish councils for consultation meetings to be held in their immediate locality. As a response to these requests a series of further meetings were held as follows:

Event Venue	Date
Praa Sands	Wednesday 19 May
Downderry	Monday 24 May
Wadebridge&Padstow	Thursday 5 August

Responses to the draft SMP2 were collated at these events and during the consultation period. These are recorded and form part of Appendix B in the final SMP2 document.

During this time, the Environment Agency reviewed the draft SMP2 through their National Quality Review Group. This review was to check that this SMP2 is consistent in its approach to when compared to other SMPs undertaken across the country; through the application of the Defra SMP2 guidance.

A8 Stage 5: Finalise Plan

The issues raised through the consultation on the Draft SMP2 are identified in the consultation report. These issues and further information have been assessed and revisions made. These revisions are identified in the consultation report included in Appendix B.

Upon finalisation of the Preferred Plan the Action Plan was created in consultation with the CSG. The Action Plan provides a programme for future activities which are required to progress the Plan between now and the next SMP review.

With these amendments made, the SMP2 was finalised in agreement with the CSG.

At this stage the SMP2 and its associated Action Plan was taken forward to each of the Operating Authorities for adoption on the following basis:

- The risk assessment is adequate for the purpose of establishing preferred policy options
- The preferred policy options are correct, bearing in mind social, economic, environmental and technical considerations.

The Lead Authority (Cornwall Council) then submitted the Final Plan to the Environment Agency. The Environment Agency Regional Director formally agreed the Plan on 24th December 2010 on the basis that it had demonstrated that all issues raised by Stakeholders during the development of the Plan had been addressed.

This process of formal adoption should ensure that national policy is applied consistently and that the Operating Authorities are committed to follow the Plan to work towards a long-term sustainable coastline for Cornwall and the Isles of Scilly.