

# **North West & North Wales Coastal Group**

## **North West England and North Wales Shoreline Management Plan SMP2**

### Appendix A – SMP2 Development

## Contents Amendment Record

This report has been issued and amended as follows:

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1	0	Draft for client review	22 August 2008	A Parsons
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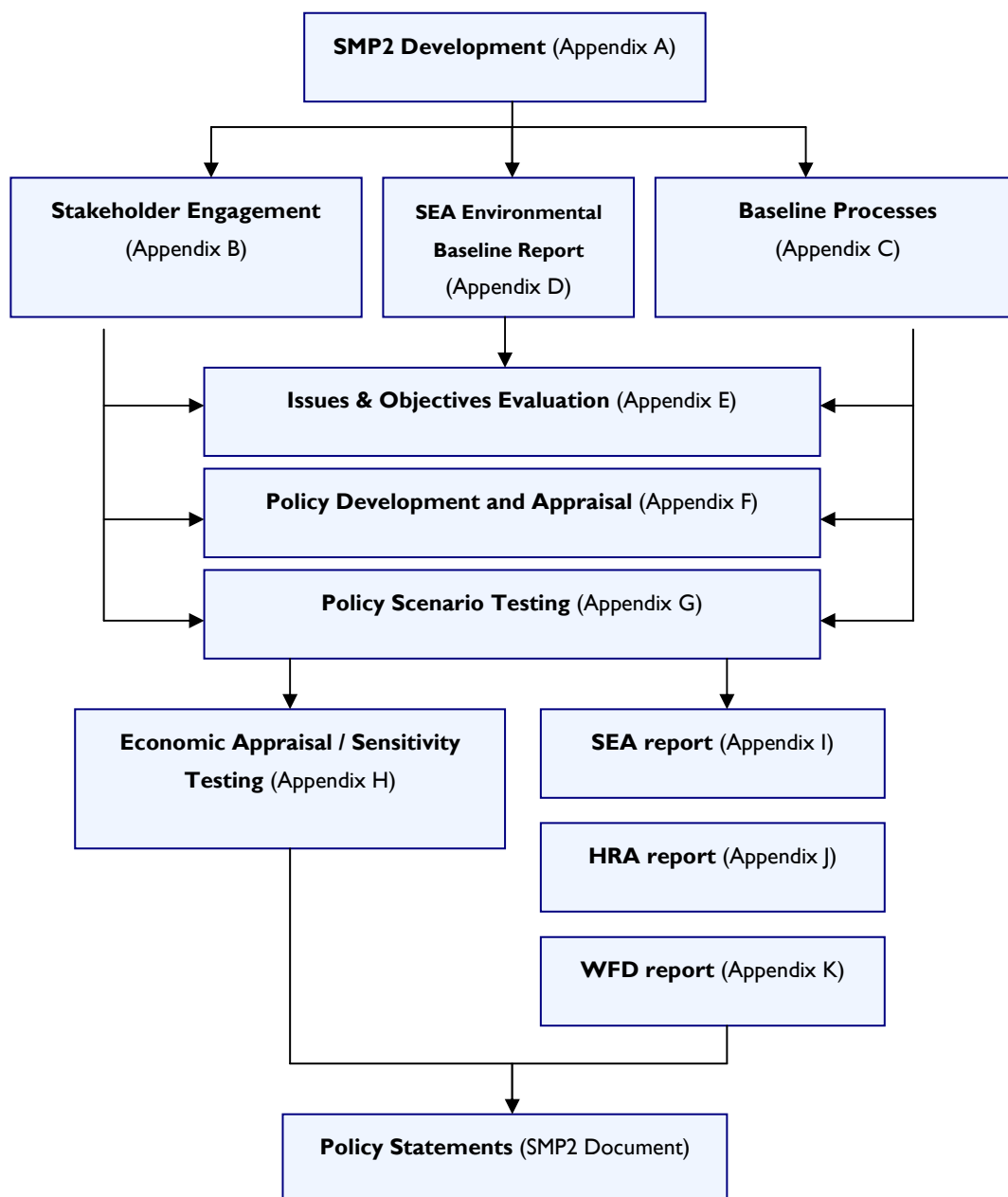
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## The Supporting Appendices

These appendices and the accompanying documents provide all of the information required to support the Shoreline Management 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. The appendices are:

A: SMP2 Development	This reports the history of development of the SMP2, describing more fully the plan and policy decision-making process.
B: Stakeholder Engagement	All communications from the stakeholder process are provided here, together with information arising from the consultation process.
C: Baseline Process Understanding	Includes baseline process report, defence assessment, NAI and WPM assessments and summarises data used in assessments.
D: SEA Environmental Baseline Report (Theme Review)	This report identifies and evaluates the environmental features (human, natural, historical and landscape).
E: Issues & Objectives Evaluation	Provides information on the issues and objectives identified as part of the Plan development, including appraisal of their importance.
F: Policy Development and Appraisal	Presents the consideration of generic policy options for each frontage, identifying possible acceptable policies, and their combination into 'scenarios' for testing. Also presents the appraisal of impacts upon shoreline evolution and the appraisal of objective achievement.
G: Policy Scenario Testing	Presents the policy assessment and appraisal of objective achievement towards definition of the Preferred Plan (as presented in the Shoreline Management Plan document).
H: Economic Appraisal and Sensitivity Testing	Presents the economic analysis undertaken in support of the Preferred Plan.
I: Strategic Environmental Assessment (SEA) Report	Presents an overview of the environmental assessment process and shows how the requirements of the EU Council Directive 2001/42/EC (the Strategic Environmental Assessment Directive) are met.
J: Habitats Regulations Assessment	Presents an assessment of the effect the plan will have on European sites.
K: Water Framework Directive Assessment	Presents the Water Framework Directive assessment of the potential hydromorphological changes and consequent ecological impact of the preferred SMP2 policies.
L: Metadatabase and Bibliographic database	All supporting information used to develop the SMP2 is referenced for future examination and retrieval.

Within each appendix cross-referencing highlights the documents where related appraisals are presented. The broad relationships between the appendices are illustrated below.



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## A.1 Introduction

This Appendix provides a full explanation of the Shoreline Management Plan (SMP2) review and development process adopted, a description of the policy decision-making process and outlines the chronology of the SMP2 development.

As such, it provides a 'route map' for the supporting information used in the SMP2 development included in the other appendices.

## A.2 Project Information

### A.2.1 SMP2 Background

The North West England and North Wales Shoreline Management Plan 2 (SMP2) is an update of the five original Cell 11 Shoreline Management Plans (SMPs) covering the area from Great Orme, North Wales to the Scottish Border, adopted between 1998 and 1999:

- Sub-Cell 11a: Great Orme’s Head to Formby Point Shoreline Management Plan (Shoreline Management Partnership, 1999a);
- Sub-Cell 11b: Formby Point to River Wyre Shoreline Management Plan (Shoreline Management Partnership, 1999b);
- Sub-Cell 11c: River Wyre to Walney Island Shoreline Management Plan (Shoreline Management Partnership, 1999c);
- Sub-Cell 11d: Walney Island to St Bees Head Shoreline Management Plan (Bullen Consultants Ltd, 1998b); and,
- Sub-Cell 11e: St Bees Head to the Scottish Border Shoreline Management Plan (Bullen Consultants Ltd, 1998b).

This SMP2 was developed and produced in accordance with the latest Procedural Guidance (PG) for the production of SMPs (Defra, 2006). The SMP2 was initiated in December 2007, with this draft for consultation produced in September 2009.

### A.2.2 Project Management Board (PMB)

Development of this revision of the SMP2 has been led by a Project Management Board (PMB) comprising members of the North West and North Wales Coastal Group (see Table A1).

**Table A1 SMP2 Project Management Board members**

Name	Organisation
Graham Lymbery	Sefton Council ( <b>PMB Chair</b> )
Mike Pomfret	Blackpool Council
Fiona Gregory/Crayston	Blackpool Council
Lee Swift	Environment Agency
Natalie Newton	Environment Agency Wales
Jennie Stopford	English Heritage
Chris Lumb	Natural England
Neil Thomas	Wirral Council
Carl Green	Wyre Borough Council
Ged McAllister	Lancaster City Council
David Bechelli	Copeland Borough Council
Mike Faulkner	Allerdale Borough Council
Brian Hodgson	Tidal Dee Users Group

This group includes the 5 Sub Cell leads as representatives for all the other district authorities as well as Strategic Environmental Assessment (SEA) statutory consultees (Natural England, English Heritage, Environment Agency Wales and the regional Environment Agency office).

It was agreed by the North West and North Wales Coastal Group that Blackpool Council would be the Lead Authority and as such were responsible for the financial management of the project, including grant aid submission, and overall project administration. The PMB had overall responsibility for the delivery of the SMP2 and were involved throughout the life cycle of the SMP2. As well as initiating the development process and defining the scope and extent of the SMP2, they were responsible for managing the development of the SMP2 through guidance and review of the work undertaken. The group will also oversee implementation of the SMP2, with regular meetings continuing following completion of the SMP2.

### **A.2.3 Client Steering Group (CSG)**

At the start of the SMP2 process Client Steering Groups were defined by the North West and North Wales Coastal Group for each sub-cell (see Table A2).

**Table A2 SMP2 Client Steering Group members**

<b>CSG</b>	<b>Name</b>	<b>Organisation</b>
Sub-cell 11a	Neil Thomas	Wirral Council
	Ben Lukey	Environment Agency
	Lee Swift	Environment Agency
	Dave Goodson	Environment Agency Wales
	Paul Wisse	Sefton Council
	Caroline Salthouse	North West Coastal Forum
	Richard Evans	Conwy Council
	Dyfed Rowlands	Conwy Council
	Rod Jones	Countryside Council for Wales
	Ruth Critchley	Natural England
	David Hall	Denbighshire Council
Sub-cell 11b	Fiona Crayston	Blackpool Council
	Andrew Shore/ Paul Walker	Fylde Borough Council
	Carl Green	Wyre Borough Council
	Graham Lymbery	Sefton Council
	Jennie Stopford	English Heritage
	Lee Swift	Environment Agency
	Rosie Baynes	Natural England
	Ruth Critchley	Natural England
	Trevor Dunn	West Lancashire District Council



<b>CSG</b>	<b>Name</b>	<b>Organisation</b>
Sub-cell 11c	Mark Ellis	Barrow Council
	Ian Winstanley	Environment Agency
	Ian Rowlands	Environment Agency
	Pippa Hodgkins	Environment Agency
	Adrian Morphet	Lancaster City Council
	Rosie Baynes	Natural England
Sub-cell 11d	David Bechelli	Copeland Borough Council
	John Hughes	Copeland Borough Council
	John Dell	Cumbria County Council
	Phil Clague	Lake District National Park
	David Falcon	Environment Agency
	Ray Kemp	Environment Agency
	Jennie Stopford	English Heritage
	Jim Robinson	Natural England
	Andrew Craze	Nuclear Decommissioning Agency
	Roger Davies	MOD Eskmeals
Sub-cell 11e	Mike Falconer	Allerdale Borough Council
	David Bechelli	Copeland Borough Council
	David Falcon	Environment Agency
	Pippa Hodgkins	Environment Agency
	Chris Hobin	Copeland Borough Council
	Andrew Craze	Nuclear Decommissioning Agency
	Andrew Butler	Cumbria County Council
	Paul Pugh	Network Rail
	Jim Robinson	Natural England

The CSG were involved throughout the life cycle of the SMP2 development. As well as providing expert knowledge and information, they were involved in a series of workshops which included discussing and approving the preferred policies presented in the consultation draft SMP2 and this final amended post consultation version.

#### **A.2.4 Environmental Sub-group**

In addition to the CSGs, an Environmental Sub-group was formed to oversee and manage the environmental assessments undertaken as part of the SMP2 (see Table A3).

**Table A3 SMP2 Environmental Sub-group members**

<b>Name</b>	<b>Organisation</b>
Lee Swift	Environment Agency
Chris Lumb	Natural England
Rod Jones	CCW
Andrew Gouldstone	RSPB
Jennifer Craig	Environment Agency
Paul Seaby	Environment Agency
Natalie Newton	Environment Agency Wales

### **A 2.5 Communications Sub-group**

A Communications Sub-group was also set up to oversee and manage the SMP2 website (see Table A4). The sub-group not only managed the SMP2 website but also organised press releases and activities relating to raising awareness of the SMP2 during Stage I (Scope the SMP2).

**Table A4 SMP Communications Sub-group members**

<b>Name</b>	<b>Organisation</b>
Carl Green (Chair)	Wyre Borough Council
Fiona Crayston	Blackpool Council
Mark Ellis	Barrow Council
Lee Swift	Environment Agency
Jo Marriner	Environment Agency

### **A 2.6 Consultant**

Halcrow Group Ltd was commissioned to produce the SMP2 on behalf of the North West and North Wales Coastal Group. Halcrow undertook the majority of the tasks, although the stakeholder engagement process was led by Blackpool Council. The Key Team members are listed in Table A5.

**Table A5 SMP2 Key Team members**

<b>Name</b>	<b>Role</b>
Kevin Burgess	Project Director
Dr Andy Parsons	Project Manager, Associate Director, Coastal
Sam Box	Assistant Project Manager, Coastal Scientist
Simon Keys	Principal Environmental Consultant
Nancy Pinnington	Senior Environmental Consultant
Corinna Morgan	Senior Environmental Consultant

<b>Name</b>	<b>Role</b>
Nick Pettit	Principal Coastal Engineer
Adam Davidson	Assistant Coastal Engineer
Rhian Thomas	Senior Planner

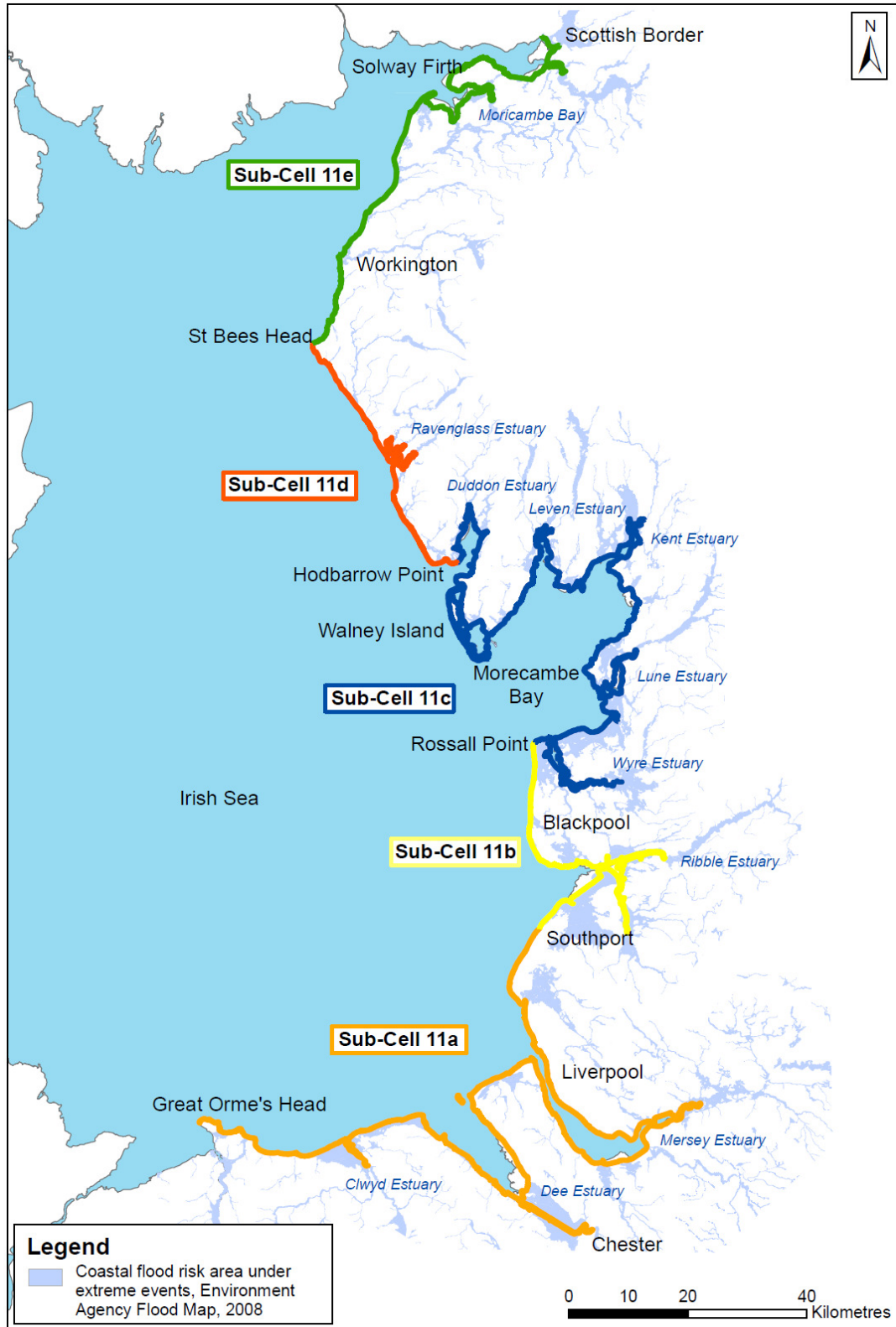
### **A.2.7 SMP2 Study Boundaries**

The North West and North Wales Coastal Group commissioned a study (Coastal Engineering UK Ltd, 2007) to review the appropriateness of the boundaries between the five first generation SMPs and to provide definition of the boundaries to be adopted in the major estuaries within each sub-cell to ensure seamless integration with the Catchment Flood Management Plans (CFMPs) being produced by the Environment Agency.

The study recommends that 5 separate SMP2s should be produced for Cell I I but with some minor modifications to the boundaries from SMPI:

- the boundary between sub-cell I I a and I I b is moved from Formby Point north to be coincident with the boundary of the Ribble Pilot Water Framework Directive area, near Southport;
- the boundary between sub-cell I I b and I I c is moved from the River Wyre at Fleetwood to Rossall Point, Fleetwood;
- the boundary between sub-cell I I c and I I d is moved from Walney Island to the north side of the Duddon Estuary at Hodbarrow Point, Haverigg;
- no change to the boundary between sub-cells I I d and I I e.

An overview map of the five Sub-Cell areas for SMP2 is included in Figure A I.



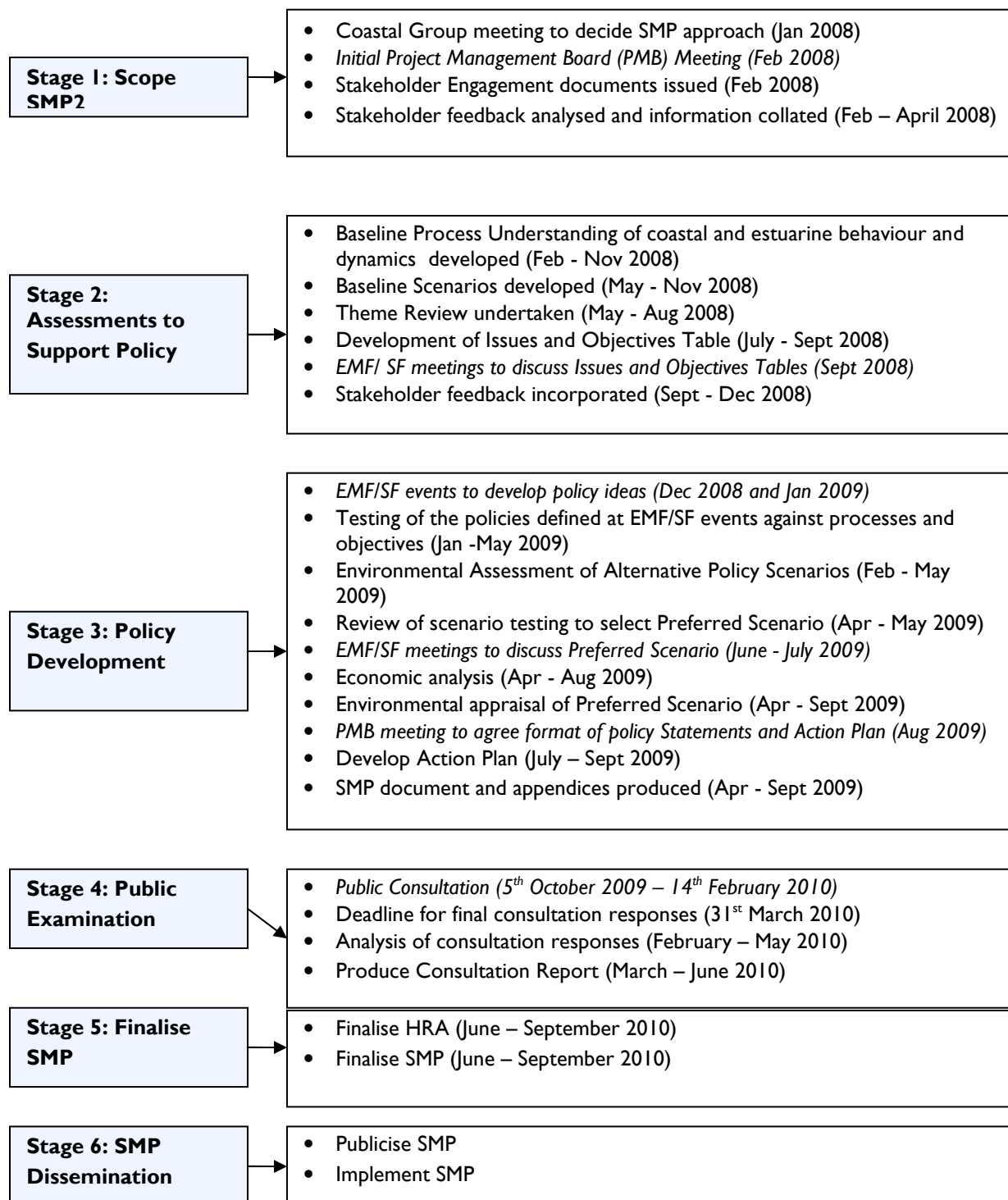
**Figure A1** Overview map of the Cell 11 North West England and North Wales Shoreline Management Plan 2 shoreline.

The following estuary boundary limits were agreed to be included in the second generation North West England and North Wales SMP2:

<b>Sub-cell</b>	<b>Estuary / River</b>	<b>Agreed Boundary (NTL – Normal Tide Limit)</b>
Sub-cell I I a	Clwyd	Rhuddlan Road (A525) Bridge
	Dee	Chester Weir (NTL)
	Mersey	Access bridge to Arpley Landfill Site downstream of Warrington
	Alt	Alt Pumping Station (NTL)
Sub-cell I I b	Crossens	Crossens Pumping Station (NTL)
	Ribble	Penwortham Bridge
	Douglas	White Bridge, Rufford
Sub-cell I I c	Wyre	Cartford Bridge (NTL)
	Lune	Skerton Weir (NTL)
	Kent	Levens Bridge (NTL)
	Leven	Haverthwaite (NTL)
	Duddon	Low Barn (NTL)
Sub-cell I I d	Drigg – Esk	Muncaster Road Bridge
	Drigg – Mite	Muncaster Mill (NTL)
	Drigg – Irt	Drigg Holme (NTL)
	Calder	Calder railway viaduct
	Ehen	Ehen railway viaduct
Sub-cell I I e	Derwent	Across river mouth at Workington
	Ellen	Across river mouth at Maryport
	Waver	Schedule IV boundary at Brownrigg
	Wampool	The Laythes (NTL)
	Eden	Kingsmoor (NTL)
	Esk (North)	Metal Bridge (NTL)

### A.3 SMP2 Programme

The Figure below illustrates the timetable of activities carried out as part of the SMP2 development, highlighted in *italics* are the activities that involved stakeholder engagement (further details are included in Appendix B).



## A.4 Stage 1: Scope SMP2

### A.4.1 Stakeholder Engagement Strategy

A four level approach was adopted:

1. Project Management Board (PMB);
2. Client Steering Groups (CSG);
3. Elected Members Forums (EMF); and
4. Stakeholders Forums (SF).

The PMB have taken the lead on the Stakeholder Engagement for this SMP2.

The aim of the EMF was to act as a focal point for discussion and consultation throughout development of the SMP2; and members of the EMF were involved in a series of workshops throughout the SMP2 development, including discussing and approving the preferred policies presented in the consultation draft SMP2. **Appendix B** provides further details of all EMF meetings and stakeholder engagement exercises.

Initially, membership of both the EMF and SF was drafted from the SMP1 list. These were then verified and updated by the PMB and CSG members. Representatives were invited from a range of local, regional and national interest groups. In addition, other stakeholders (including local residents) were also invited to participate in the SF meetings: a full list is provided in **Appendix B**. A database of names, organisations and contact details was created.

### A.4.2 Data Collection

Data was collected via a number of sources including stakeholders, literature searches and web-searches. Key resources were:

- The first round SMPs (Shoreline Management Partnership, 1999a, b, c; Bullen Consultants Ltd, 1998a, b)
- Futurecoast (Halcrow, 2002)
- Existing strategy studies completed since SMP1;
- Existing scheme/ Project Appraisal Reports completed since SMP1;
- Existing Defence Reports;
- Natural England website ([www.naturalengland.org.uk](http://www.naturalengland.org.uk));
- MAGIC website ([www.magic.gov.uk](http://www.magic.gov.uk));
- Environment Agency, Environment Agency Wales;
- Countryside Council for Wales; and
- Data provided by English Heritage and County Council Heritage Environment Record offices.

All the data and information gathered and used within the SMP2 development are referenced in **Appendix L**. Some of the data collected were reviewed as part of separate tasks, such as that completed for the Baseline Process Understanding of Coastal and Estuarine Behaviour and Dynamics (see Stage 2 below).

## A.5 Stage 2: Assessments to Support Policy Development

### A.5.1 Baseline Process Understanding of Coastal and Estuarine Behaviour and Dynamics

#### (a) Assessment of coastal and estuarine processes and evolution

An assessment of coastal and estuarine behaviour and understanding was undertaken, incorporating existing information at various temporal and spatial scales. This review includes statements on interactions, shoreline movement and predictions of shoreline and estuary evolution at various scales and is included in **Appendix C**. In addition there are also two introductory sections:

- **C1: Introduction and Approach** - Which includes the general approach adopted and key data sources
- **C2: General Overview of Current Understanding** - which discusses other considerations necessary in policy development, e.g. impacts of climate change including sea level rise and summary descriptions of each coastal section.

This baseline review underpins coastal and estuarine process understanding of the study area and is the basis for the development of the baseline scenarios. A review of this report was undertaken by the PMB. Through this review it was concluded that there are still inherent uncertainties associated with coastal behaviour along this coastline, which are discussed in the report.

Following public consultation and prior to finalising the SMP2 an addendum has been included with **Appendix C (Annex C3)** to provide an update to the understanding of coastal processes using the results of the Cell Eleven Tidal and Sediment Study (CETaSS) stage 2(ii) report, Halcrow (2010). In particular this Annex

- provides an overview of the new findings and indicates where more detailed information can be found;
- documents any specific findings that result in significant changes from the baseline coastal process understanding documented in the main part of Appendix C; and,
- comments on any implications for SMP2 policies.

#### (b) Assessment of coastal defences

The majority of information in the assessment of coastal defences was taken from the National Flood and Coastal Defence Database (NFCDD). Other information had to be extracted from a variety of defence assessments and reports which have been undertaken along the SMP2 frontage. Along some stretches of coast, defence information is limited where defences are privately owned and/or ad hoc. In these circumstances defences were assessed using expert interpretation of oblique aerial photography. Defence data has been double-checked by operating authorities in the CSG.

The Defence Assessment was used to inform both the baseline processes (**Appendix C**) and the two baseline scenario assessments (**Appendix C**). The defence assessments provided information to assist in:

- Understanding of how defences and management practices may have affected coastal behaviour in the past;
- Understanding of how defences and management practices may affect coastal behaviour in the future, under various management scenarios; and,



- the ‘No Active Intervention’ assessment (see below) as a first approximation of when defences will fail.

The report on defences is included in **Appendix C**: a review of this report was undertaken by the PMB.

### A.5.2 Baseline Scenarios

To assist in the development of future policy, the future coastal response was assessed for two simple scenarios, termed ‘baseline scenarios’: ‘No Active Intervention’ (NAI), which assumes that defences are no longer maintained and will fail over time; and ‘With Present Management’ (WPM), which assumes a continuation of present management practices, in that all defences are maintained to provide a similar level of protection to that provided at present (i.e. an increase in flood defence heights over time to keep up with climate change). These two assessments provide an understanding of the influence of defences on coastal behaviour and evolution.

The NAI and WPM scenarios were developed in line with Defra guidance (Defra, 2006) and it is important to note that these assessments were NOT intended to be realistic scenarios for managing the coast. They were developed as contrasting examples to form the basis of later policy appraisal and the WPM does not consider affordability or other constraints.

These assessments were completed for three pre-defined timescales (epochs): 0 to 20 years; 20 to 50 years and 50 to 100 years. It was not appropriate at this stage to define *Policy Units*; therefore the coast was initially divided according to the natural and/or defence characteristics of the coast and is reported south to north, i.e. Great Orme to Scottish Border.

Under the two scenarios, predictions of future shoreline change and erosion/ flooding risk have been made using information from the baseline understanding of coastal and estuarine behaviour and dynamics (see above) together with additional data on historical shoreline change from analysis of Environment Agency beach profiles and Historical Ordnance Survey maps, the Environment Agency Flood Zone Risk Mapping data, and future shoreline erosion risk from the Defra/Environment Agency/WAG National Coastal Erosion Risk Mapping R&D project data. Further details of the information used are included in **Appendix C**.

The two reports are included in **Appendix C**. Maps showing the predicted shoreline response under ‘No Active Intervention’ are included in **Appendix C**; these illustrate maximum flood and erosion risk zones. These conclusions from the analyses were reviewed by the PMB.

### A.5.3 SEA Environmental Baseline Report (Theme Review)

Conflicts between the natural and built environment exist along any shoreline, and the SMP2 has to consider these conflicts in terms of shoreline management. Therefore the first stage is to identify the key features along this shoreline, including natural, human and socio-economic assets, and to fully understand the relationships between these features and how coastal management can alter coastal processes and impacts on the environment.

The SEA Environmental Baseline Report (Theme Review) (refer to **Appendix D**) identifies key environmental features along the coast and why these features are important to stakeholders: this is a central element of the identification and assessment of objectives. It has been produced using both the most up-to-date data available, and information provided by stakeholders. Information from this review has then been used as a basis for developing policy options and assessing the impacts and suitability of these options.

An overview of the coastline is provided, together with specific information relating to:

- Natural Environment:
- Biodiversity, Flora and Fauna;
  - Earth Heritage, Soils and Geology;
  - Air and Climate;
  - Water.
- Landscape Character and Visual Amenity.
- Landscape and Visual Amenity
- Historic Environment (Cultural Heritage):
- Terrestrial;
  - Marine.
- Land Use, Infrastructure and Material Assets:
- Commerce and Industry;
  - Port and Harbour Activities;
  - Agriculture;
  - Infrastructure;
  - Fisheries;
  - Mineral Extraction and Landfill;
  - Future Land Use/Planning Targets;
  - Other Proposed/Ongoing Developments.
- Population and Human Health:
- Residential;
  - Health;
  - Recreation, Tourism and Amenity Interests.

Thematic maps have been produced to show the location of key features and these are included as part of **Appendix D**.

All environmental features and assets lying wholly, or partly, within the inland boundary of the SMP2, which has been taken to be one kilometre inland of the coastline between Great Orme and Scottish Border, or up to the limit of the indicative coastal flood risk zone (where this extends further inland), have been included.

The SEA Environmental Baseline Report forms the scoping stage of the SEA: further details on how the SMP2 complies with SEA Directive requirements are provided in **Appendix I**.

#### **A.5.4 Definition of Issues and Objectives**

The definition of issues and objectives (**Appendix E**) is a key activity of the second generation SMPs (SMP2s) they inform the development of policy options and secondly, they help to assist in policy appraisal. The setting of objectives fulfils two roles; firstly, they help inform the development of policy options, secondly, they help provide a focus for consensus amongst the SMP2 stakeholders on the various issues, sometimes conflicting, that are raised during the process of plan formulation.

An objective defines a target or goal that the SMP2 aspires to in delivering the plan. It is, however, important to understand that quite commonly there are conflicting objectives for a particular stretch of coast and that therefore it is likely that not all objectives will be achieved by the SMP2; the aim of the SMP2 is to seek to provide a balanced plan, which considers people, nature, historic and socio-economic realities.

Using the information contained within the SEA Environmental Baseline Report (**Appendix D**) the issues were tabulated, subdivided into the various coastal sections. Using the SMP2 PG (2006) together with SEA guidelines, a list of SEA wide objectives was developed and, using the issues identified, appropriate objectives were defined for each feature. Within the environmental objectives, a distinction has been made between those that arise from legal (shown in **bold italics**) and those that do not represent legal obligations.

Some features such as priority habitats, for example, were excluded from the table as a thorough appraisal of them is not possible without knowledge and specific details of project level schemes or because complete data coverage of the SMP2 area is not available. Similarly, some assets, such as those associated with commercial fishing, are unlikely to be affected by policy decisions in coastal management, and are therefore excluded from the Issues and Objectives Table.

Within this SMP2 we have not attempted to weight or rank objectives, as our previous experience on other SMP2s has proven this technique to be biased towards certain policy drivers and often too subjective. Instead the focus has been on a more qualitative and flexible means of developing and appraising sustainable policy options against technical, economic, environmental and social factors. We have found this method to be more appropriate when considering intangibles and areas where a single policy may have both positive and negative impacts.

This approach has also allowed stakeholder views, provided via a number of stakeholder events, to be considered and included within both the development of the issues and objectives table, and the subsequent policy appraisal.

### A.5.5 Identify Flood and Erosion Risks

As part of the assessment of the 'No Active Intervention' baseline scenario, maps of potential flood and erosion risk over the three epochs were produced: these are included in **Appendix C**.

### A.5.6 Assessment of Objectives

Following the principles of 'Making Space for Water', the impact on the coastal features and assets of a policy of 'no active intervention', throughout the coastline, has been considered. This has drawn upon both the baseline process appraisal (presented in **Appendix C**), and information contained within the SEA Environmental Baseline Report (see **Appendix D**). From this it has then been possible to determine whether objectives have been met, focusing on *how* and *why* objectives were (or were not) met, rather than *numbers* of objectives met.

This baseline understanding is an important input to the policy development stage and is presented in **Appendix E**.

### A.5.7 High-Level Objectives

In addition to the objectives generated through stakeholder involvement there is a number of overarching objectives for SMP2s that have been set by Defra, which have been considered when appraising policies:

- Shoreline management policies should take due consideration of current Government sustainable development policies, any High Level Targets, regulations, statutes, and climate change guidelines associated with flood and coastal defence;

- Shoreline management policies should seek to have no adverse effect on any physical processes that benefits rely upon;
- Shoreline management policies should take due consideration of the need to maintain, restore or where possible enhance the total stock of natural and historic assets; and
- Shoreline management policies should have regard to current regional development agency objectives and statutory planning policies.

## A.6 Stage 3: Policy Development

This Stage involved four key steps:

- Development of policy scenarios;
- Policy scenario assessment;
- Identification of a preferred scenario; and
- Confirmation of the preferred scenario.

Further details on each of these steps, and results of any assessments, are included in **Appendices F (Policy Development and Appraisal), G (Policy Scenario Testing) and H (Economic Appraisal and Sensitivity Testing)**. The sections below outline the main tasks undertaken to complete these steps.

### A.6.1 Development of Policy Scenarios

Defra SMP2 guidance (Defra, 2006) advocates a ‘policy scenario’ approach, whereby a string of policies is defined and appraised for discrete stretches of coastline; this approach ensures that the combined impact of policies is considered.

The first stage of the SMP2 assessment was therefore to determine the main factors influencing policy decisions along the coast, i.e. key policy drivers. A key policy driver can be defined as a feature that has sufficient importance in terms of the benefits it provides that it potentially has an overriding influence upon policy selection at the wider SMP2 scale; this may be through either promoting a policy or discarding a policy for a particular location or locations. In identifying key policy drivers, the appropriateness of all four generic Defra policies was broadly considered for each location, i.e. ‘Hold the Line’, ‘Advance the Line’, ‘Managed Realignment’ and ‘No Active Intervention’.

An internal Halcrow workshop attended by coastal scientists, engineers, environmental scientists, planners and RPA took place to identify policy scenarios to test. An initial policy scenario was then developed (defined as ‘Scenario A’), based upon balancing stakeholder objectives identified in Stage 2. Using the knowledge gained in Stage 2 of coastal response and impact on features of the baseline scenarios, together with inputs from the coastal group, possible variations on this scenario were identified broadly based upon the following principles:

- Key Drivers plus a more naturally functioning coast by year 100; and
- Key Drivers plus defence of other areas where present economic criteria *may* be satisfied, i.e. those areas where the initial assessment of the four generic policies had not totally discounted a ‘Hold the Line’ policy.

Prior to testing, these proposed policy scenarios were consulted upon, with the PMB, CSG, the Elected Member and Stakeholder Forums (see **Appendix B**). Feedback from this consultation was used to refine the policy scenarios further and these policy scenarios were then taken forward to the appraisal stage (see **Appendix F**).

### A.6.2 Policy Scenario Assessment

This process had two main stages:

- assessment of shoreline interactions and response; and

- assessment of achievement of objectives.

#### (a) Assessment of shoreline interactions and response

Each policy scenario was assessed in terms of future shoreline response. Following the same methodology as applied to the baseline scenario appraisal, statements on the impact of each policy scenario were produced, which describe the impact on coastal processes and shoreline evolution in response to the implementation of the policies. This has built on the work undertaken for the baseline scenarios in Stage 2 (No Active Intervention and With Present Management) where full consideration has been made of the potential estuary-open coast interactions. These assessments incorporated consideration of future climate change, in particular sea level rise. Predictions were made of both the likely rate of change and type of change along the coast.

Assumptions have been made regarding the implementation of the proposed policies: this is an important consideration as the type of implementation changes how a policy might impact on both the local environment and adjacent shorelines. For example, the downdrift consequences of a 'hold the line' policy may differ if this is to be implemented through provision of a linear defence (e.g. a seawall), or if it is envisaged that this will be implemented through beach stabilisation (e.g. breakwaters or groynes, possibly including recycling). This, therefore, required a broad assessment of the *technical* viability of the proposed policy considered.

Reports detailing these assessments are included in **Appendix F**.

#### (b) Assessment of achievement of objectives

This stage involved appraising the impact of the policies on features along the coast and estuaries, up to defined estuarine limits. The approach adopted focused on qualitatively defining the 'benefits' and 'dis-benefits', using information contained within both the SEA Environmental Baseline Report: Theme Review (**Appendix D**) and the Issues and Objectives Evaluation (**Appendix E**). At this stage we also looked to identify any opportunities that could arise from implementing the proposed policies, both for the environment and for people. All conclusions have been fully recorded in the Issues and Objectives Table. At this stage no quantification of losses was undertaken, or detailed economic analysis.

The Objective Assessment tables are included in **Appendix F**.

### A.6.3 Identification of a Preferred Scenario

Results of the scenario testing were presented to the PMB, CSG, EMF and SF at a number of consecutive meetings in June 2009. A table summarising the proposed preferred policy and justification of each policy was distributed to stakeholders prior to the meetings. The proposed policies were presented and stakeholders were asked to identify any areas where they disagreed with the proposed policy and wished to discuss further. Where areas of conflict existed, and discussion at the meeting was unable to resolve the issues on the day, further communication took place to discuss specific sites and to check the justification for the proposed policy, preceded by further review and consideration of the proposed preferred policies and the alternatives by the SMP2 consultant.

At this stage many of the concerns noted related to the impact of policy decisions on property owners and infrastructure, in terms of property blight and insurance and access issues, rather than the technical justification of the policies.

Feedback from the meetings, together with the conclusions from policy assessment, were used to modify the scenarios in order to develop draft 'preferred scenarios' for each sub-cell, i.e. a coastal-wide scenario that best achieves the defined shoreline management objectives in a sustainable manner, considering technical,

environmental and economic factors (further discussion on sustainability is provided in the main SMP2 document). Only minor changes were made, although it was recognised that at many sites, management of coastal retreat would be necessary and that the document should identify the need for measures to be in place to deal with loss of land and property. Where changes were made, further assessments were undertaken.

Once the draft preferred scenario had been defined, Policy Units were finalised; these are simply frontages for which a discrete shoreline management policy applies.

The draft preferred scenario was discussed with, and reviewed by, the PMB and agreed in principle.

#### A.6.4 Confirm Preferred Scenario

Once the preferred scenario had been agreed, economic analysis was carried out, although economic considerations had also been taken into account in the development of the scenarios. **Appendix H** includes details on the analysis undertaken.

It should be noted that this assessment was not to establish the economic justification for a scheme, simply to make a broad assessment of the economic robustness of the preferred policies, i.e. whether the policy was:

- clearly economically viable;
- clearly not economically viable; or
- of marginal viability (and therefore in need of more detailed assessment at a later date, e.g. as part of a strategic plan).

In some locations information was available from existing strategy studies and scheme Project Appraisal Reports and these contain detailed information on assets, benefits, and management costs. These data sets have been used where appropriate and directly applicable, but problems in using such data relate to differences in:

- the timeframe – as many strategies have looked at economics over only 50 years and use different discount factors to those now required by Treasury;
- the area determined to be at risk, which may differ from the SMP2 (particularly due to the timescale issue noted above);
- the preferred option, which may differ from the SMP2.

Therefore new data has also been derived. Losses and benefits have been calculated primarily on the basis of residential and commercial property values; these have been determined using a GIS (ESRI ArcGIS) along with Defra FCDPAGN calculation sheets, which enabled the timing of property loss to be determined using the risk zones defined as part of the policy assessment and no active intervention baseline scenario. Other assets such as utilities and highways, have, on the whole, not been valued nor included and intangibles such as recreation and impacts upon the local economy or environment are also not included.

The cost of implementing the proposed policy has also been broadly calculated, assuming the implementation measures to be used. See **Appendix H** for further details on data used in the economic assessment.

#### A.6.5 Draft SMP2 Consultation Document Preparation

A draft version of the main SMP2 was produced to clearly present the Plan and the associated policies for review and consultation. This included:

- Details on the objectives of an SMP2 and its status;
- A non-technical explanation which gives background to development of the Plan and discusses concepts of sustainability;
- An overview of the Plan and its implications for the SMP2 coastline as a whole;
- Statements for each policy unit outlining:
  - Details of the policies and their implementation;
  - Justification for the policies; and
  - Implications for local objectives.
  - Action Plans
- Mapping to support the statements.

All supporting information is included in the accompanying Appendices as discussed within this document.



## **A.7 Stage 4: Public Examination**

### **A.7.1 Gain Approval in Principal**

Prior to a final version of the consultation draft SMP2 document being produced, the Plan was presented to the PMB in August 2009. The policies and their justification were presented to the group for further discussion, following which it was agreed that the preferred policy scenario could go forward to public consultation.

### **A.7.2 Confirm Consultation Strategy**

A strategy for the public consultation exercise was developed by the SMP2 Communications Sub-group and agreed by the North West and North Wales Coastal Group.

The following methods of consultation were agreed by the group:

- Press Releases;
- Elected Member Reports;
- Reports to Parish Councils;
- Website- with links to website on Local Authority Websites;
- Leaflets placed in town halls and other public buildings;
- Copies of the SMP in town halls and other public buildings; and,
- Further targeted consultation in identified 'hotspots' which will differ and for each location taking into account the specific issues and stakeholders.

### **A.7.3 Public Consultation**

The public consultation report is included in Appendix B and forms Appendix B Part 2 along with Annexes B4 through to B15. The consultation report documents how we have consulted with the public during the public consultation stage (October 2009-February 2010) to inform them about the draft SMP2 and gave them the opportunity to comment on the proposed policies.

The consultation report includes details of all the awareness raising events and contains all of the written responses received and the SMP2 team's comments on the responses which set out how they were taken into account in finalising the SMP2.

Public Consultation took place between the start of October 2009 and the 14th February 2010. The consultation was originally planned to take place over a three month period running up until the 31st December 2009, but due to technical problems with the Coastal Group website and the severe flooding which affected many people in Cumbria in November 2009, the consultation was extended until 14th February 2010.

As the consultation period came to an end concern was expressed in some areas that stakeholders and the public would not have sufficient time to complete their responses to the consultation, especially where there were contentious issues which would require further information and/or meetings to be held. To accommodate for this, certain areas where provisional responses with requests for extensions of time had been made were given until the 31st March 2010 to submit their final consultation responses.

## A.8 Stage 5: Finalise Plan

### A.8.1 Determine revisions to draft SMP2

Following the public consultation period and initial review of all responses received the need for additions and or changes to the policies proposed in the consultation draft SMP2 document were considered at a two day workshop attended by the SMP2 Team, including representatives from the PMB, CSG and consultant.

The proposed revisions to policies and potential impacts of these changes were discussed in detail and agreed by the PMB and CSG and are documented in the Consultation Report, Appendix B Part 2.

Following PMB agreement on the proposed changes, the Consultation Report was made available on the internet, via the North West and North Wales Coastal Group Website, [www.mycoastline.org](http://www.mycoastline.org).

The Environment Agency's National SMP2 Quality Review Group (EA QRG) comments on the consultation draft were also reviewed and the SMP2 Team responses and proposed changes were documented in the review tracking spreadsheet in order that it can be made available on the coastal group website alongside Appendix B.

Alterations and additions to the main SMP2 document and supporting appendices were made, where necessary, in response to comments received and to finalise the document. These changes are recorded in the Consultation Report and supporting Annexes in Appendix B.

### A.8.2 Finalise Action Plan

The SMP2 guidance allows for development of the Action Plan for implementation of the plan either before or after the public consultation phase. In this case a draft Action Plan was produced prior to consultation in order that people could provide comments on how the policies were proposed to be put into practice.

Following consideration of comments raised during consultation the Action Plan, was finalised ready for dissemination. The Action Plan consists of Plan wide activities listed in the Main SMP2 document and more detailed local items that are listed in the Policy Statements for each Policy Area.

### A.8.3 Finalise Habitat Regulations Assessment

As the North West England and North Wales SMP2 includes or has the potential to affect a number of European sites (Special Protection Areas, Ramsar sites and a Special Area of Conservation), then the requirements of the European Union Habitats Directive (92/43/EEC) and European Union Birds Directive (79/409/EEC), as implemented in the UK by the Conservation (Natural Habitats &c) Regulations 1994 ("Habitats Regulations") and the Wildlife and Countryside Act 1981, had to be addressed. A draft Habitat Regulations Assessment (**Appendix J**) was included with the consultation draft SMP2 at the public consultation stage. After consultation this has been further developed and finalised for agreement by the Environmental Sub-Group and submission to the Competent Authorities, which for this SMP2 are the Welsh Assembly Government (WAG) for the sites in Wales and the Environment Agency for England. The revised Habitats Regulations Assessment was subject to a further consultation period to allow Natural England (NE) and the Countryside Council for Wales (CCW) to comment on these amendments. Following agreement by NE and CCW, it was confirmed that a **Statement of Case** for Imperative Reasons of Overriding Public Interest (**IROPI**) was required before the SMP2 could be formally adopted. The Statement of Case was produced by the North West England and North Wales Coastal Group and submitted to Defra.

The outcome of the IROPI submission will be included as part of **Appendix J** once complete.

#### **A.8.4 Finalise Water Framework Directive Assessment**

The Water Framework Directive (WFD) came into force in 2000 and is the most substantial piece of European Union water legislation to date. As such the Directive has to be taken into account in the planning of all new activities in the water environment. Consequently, the Environment Agency (the competent authority for the WFD in England and Wales responsible for delivering the Directive) issued new guidance in 2009 explaining how to build the environmental objectives of the WFD into SMP2s).

A draft WFD assessment, Appendix K, was undertaken prior to the public consultation stage. Because the SMP2 development commenced before the WFD guidance was available the assessment was partially retrospective. As such, and in line with the guidance, the assessment aims (a) to identify if the proposed SMP policies are likely to result in any hydromorphological or physical changes which would result in a risk of failing the WFD's objectives for the water bodies in question, (b) in the cases where such risk exists, to assess the compliance of the proposed SMP policies with Article 4.7 of the Directive, and (c) if required, to identify any additional mitigation measures which should be included during on-going work to implement the SMP proposals.

The WFD assessment has been finalised following final changes to the SMP2 policies post consultation and is included in Appendix K.

#### **A.8.5 Finalise Strategic Environmental Assessment**

The SEA **Appendix I**, which was developed in draft for the public consultation was finalised to take into account comments received, particularly those from the EA National SMP2 Quality Review Group. The assessment had to be updated to take into account changes to policies and also to give additional details on the importance and scale of impacts and proposed mitigation measures. The revised SEA **Appendix I** was subject to a further consultation period, where the statutory consultees, Countryside Council for Wales, Natural England, English Heritage, Cadw, Environment Agency Wales and the Environment Agency, were given 3 weeks to comment on these amendments before the **Appendix I** was finalised.

#### **A.8.6 Finalise SMP2**

Following consideration of comments raised during public consultation and by the EA National SMP2 Quality Review Group, the SMP2 has been finalised. The Final SMP2 has been adopted by the coastal Local Authorities within the SMP2 boundaries.

## **A.9 Stage 6: Plan Dissemination**

### **A9.1 Dissemination and Implementation of the final SMP2**

The PMB and CSG will be responsible for making the SMP2 accessible and for publicising its completion. It will also be the responsibility of the South East Coastal Group to promote and monitor progress, with the Action Plan retained on the agenda for all future Coastal group meetings. The SMP2 web pages (part of the Coastal Group website) will have an 'Updates' page on which this Action Plan will be placed and progress against the actions reported. This will include identification of the implications of any study outputs or wider developments for the relevant SMP policies.

It is considered likely that the next review of the SMP will take place within a 5 – 10 year period.