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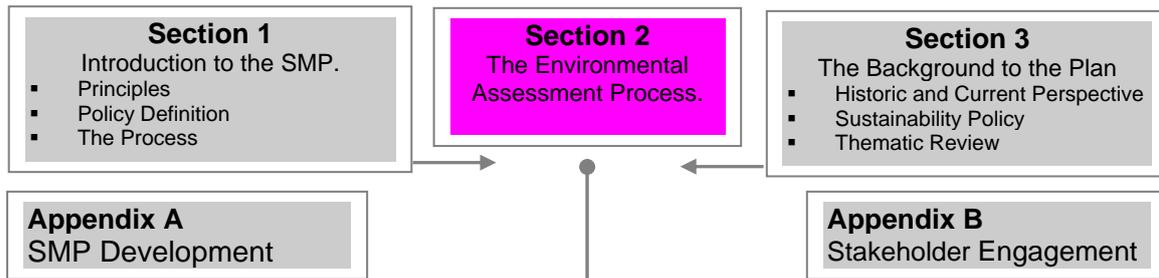


## 2 ENVIRONMENTAL ASSESSMENT

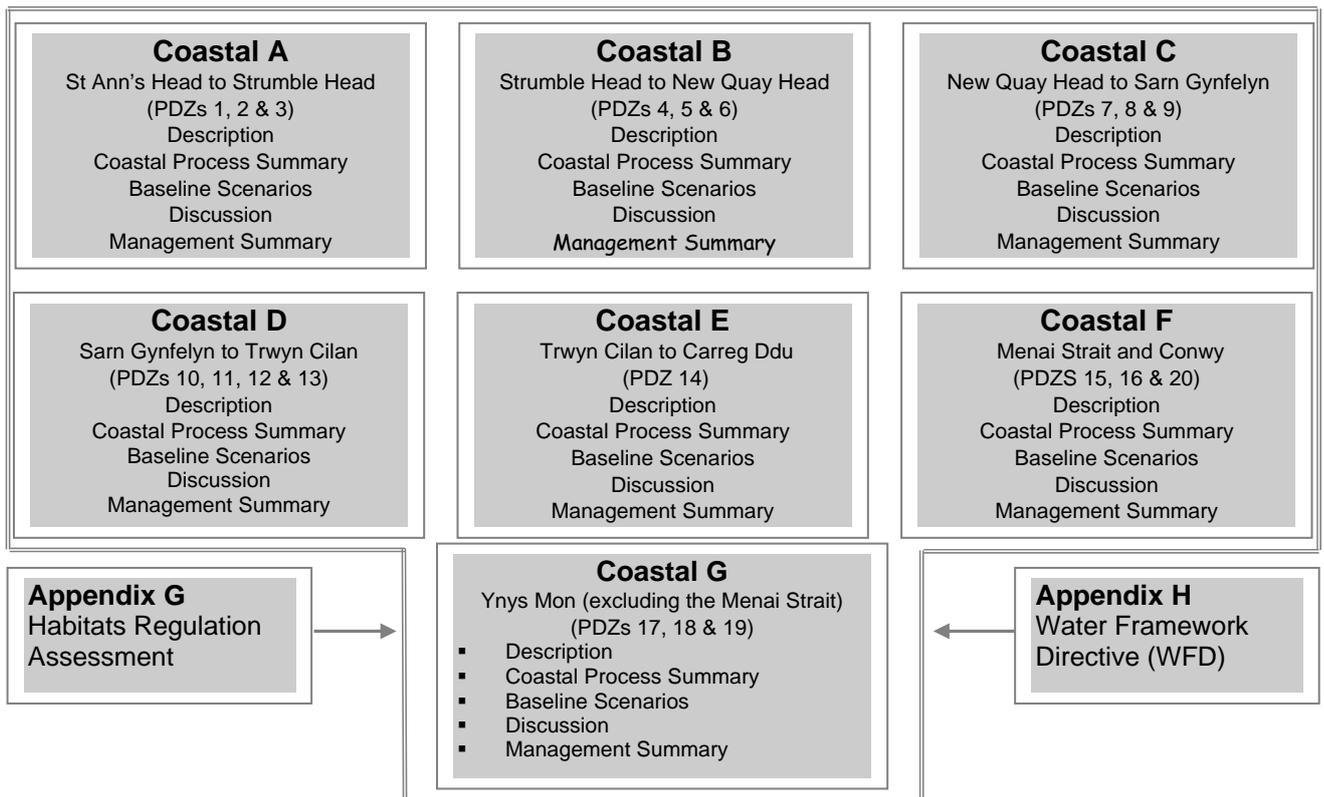
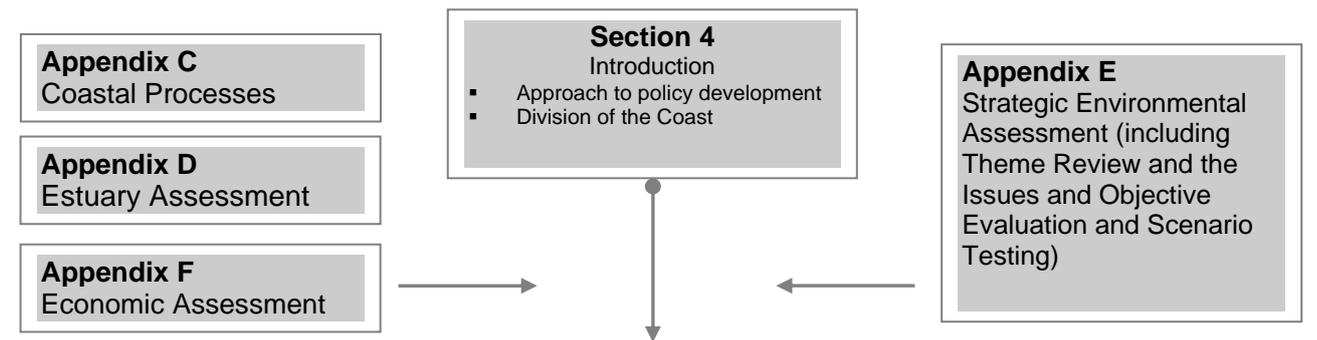




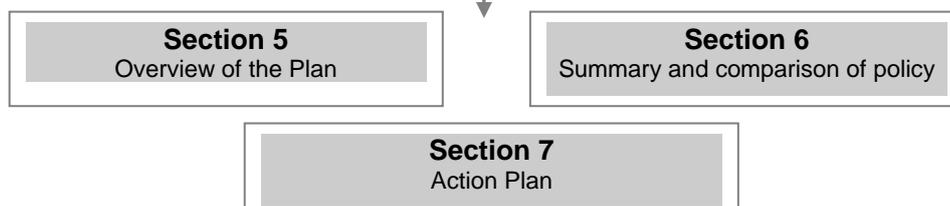
### INTRODUCTION AND PROCESS

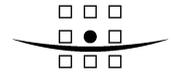


### PLAN AND POLICY DEVELOPMENT



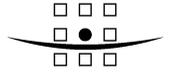
### OVERVIEW





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**ROYAL HASKONING**

## 2 ENVIRONMENTAL ASSESSMENT

In carrying out the West of Wales SMP it is important to understand the relationship between the areas of value to nature conservation and coastal processes, and understand how coastal defences can alter the coastal processes and therefore have an impact on the nature of the environment.

In addition, coastal defences may also have an impact on the landscape of an area. Depending on the type of defence used the significance of this may depend upon the importance placed upon a particular landscape.

This chapter outlines the strategic process undertaken for the environmental appraisal of the West of Wales SMP based on the key requirements of the European SEA Directive (2001/42/EC) and EC Habitats Directive (92/43/EEC). It contains the following sections; environmental assessment within the SMP2, SEA and AA.

### 2.1 Environmental Assessment within the SMP Process

#### 2.1.1 Existing Environment

Wales is blessed with an exceptional diversity of habitats and the flora and fauna include many distinctive species. Many of these species and habitats are of national, European or international importance and much of the coastal landscape and its biodiversity are important to the local economy. The high quality of the biodiversity along the Welsh coastline is reflected in the high proportion of European or internationally recognised sites that cover large areas of sea and coast. Protected sites in Wales can be broadly categorised as:

- Special sites protected under international agreements – Wetlands of International Importance (Ramsar sites), Biosphere Reserves and Biogenetic Reserves;
- *Natura 2000* sites protected under European Commission Directives – Special Areas of Conservation (SAC) and Special Protected Areas (SPAs);
- Special sites protected under UK law - Sites of Special Scientific Interest (SSSIs) and Marine Nature Reserves (MNRs); and
- Other special sites – National Nature Reserves (NNRs) and Local Nature Reserves (LNRs).

An overview summary of the designation and reserves present within West of Wales are presented in Table 1.1.

**Table 1.1 West of Wales SMP2 Site Designations and Reserves**

Site Designation Area (Hectares)	Site Designation Area (Hectares)
RAMSAR sites	653
Special Protection Area EU Habitats Directive (SPA)	176,209
Special Area of Conservation EU Habitats Directive (SAC)	488,530
SSSIs	40,466
National Nature Reserves	6,027
Marine Nature Reserves	1,324
Local Nature Reserves	3,359

In addition, much of the coastline is designated as Heritage Coast and is of significant cultural, historic and geological value.

The combination of selected natural environmental assets, supported by natural processes, associated with this particular SMP creates a coastline of great value, with a tourism economy of national importance. However, these existing environmental assets could quite easily be damaged by inappropriate coastal defences.

The current state of the West of Wales SMP environment is described in the Thematic Review presented in Appendix E of this report. These studies identified the key features of the natural and human environment of the coastline, including a commentary on the characteristics, status, relevant designations, as well as the importance of these features and the “benefits” they provide to wider society.

This is supplemented by the Coastal Processes report, in Appendix C, which identifies the contemporary physical form of the coastline and the processes operating upon it.

### 2.1.2 The Appraisal Process

A SMP provides an assessment of the risks associated with coastal evolution and provides a framework to address these risks to people and the developed, historic and natural environment in a sustainable manner. The SMP is a non-statutory, policy document for coastal defence management planning, which takes account of other existing planning initiatives and legislative requirements, being intended to inform wider strategic planning. It does not set policy for anything other than coastal defence management.

Full details on the background to the SMP and the appraisal process are set out in Sections 1 and 3, with the exact details of the procedure followed in development of the Plan being set out in Appendix A.

### 2.1.3 Stakeholder Engagement

A wide variety of stakeholders have been involved in the development and the review process of the SMP, with regular consultation having been undertaken. This is one of the key changes from the first SMP, with this involvement having:

- Been undertaken throughout the development of the SMP;
- Given people and organisations an opportunity to comment on the environmental appraisal of options; and
- Allowed representations made by the organisations, communities and the public to be taken into account in the selection of policy options.

Stakeholders for the SMP have included representatives from local authorities, government agencies and industry. This group has met periodically throughout the development of the SMP to input information and review outputs as the SMP has progressed. The CSG for the West of Wales SMP has comprised representatives from local authorities, the Environment Agency Wales, Countryside Council for Wales, Network Rail, Pembrokeshire National Park Authority, Snowdonia National Park Authority with a remit to agree the various stages of the SMP as it progresses. The views of those whom the SMP policies will affect have therefore been involved in its development, which has ensured that all relevant issues have been considered.

Full details of all stages of stakeholder engagement undertaken during development of the draft Plan are presented in Appendix B. This includes copies of briefing materials.

### 2.1.4 Environmental Objectives

An integral part of the SMP development process has been the identification of issues and definition of objectives for future management of the shoreline. This was based upon an understanding of the existing environment, the aspirations of stakeholders and an understanding of the likely evolution of the shoreline under the hypothetical scenario of NAI (Appendix C), which identifies the likely physical evolution of the coast without any future defence management and hence potential risks to shoreline features.

The definition and appraisal of objectives has formed the focus of engagement with stakeholders during development of the SMP (as identified in Appendix B). The full list of issues and objectives defined for this SMP is presented in Appendix E, which is supplemented by background information provided in the Thematic Studies (Appendix E).

Appendix G includes consideration of how the objective and hence the environment, would be affected under a NAI scenario, while Section 5 provides and draws together the overall potential environmental effects of the preferred policies.



### 2.1.5 Environmental Effects of the Preferred Plan

The rationale for development of the preferred plan within each PDZ is reported in Section 4, which includes a summary policy statement for each MA, containing the environmental implications of the various scenarios recorded. A summary of how the preferred plan might perform with respect to different themes is presented in Section 5.

Within the MA Summary Statements in Section 4, further detail of the implications of the preferred plan for all of the internationally, nationally, regionally or locally designated environmental areas are presented, as well as an identification of any mitigation measures that would be required in order to implement the policy. This is further supported through undertaking of an AA of the Plan, with the supporting information being provided in Appendix G, with a brief overview below in Section 2.2.

## 2.2 Strategic Environmental Assessment (SEA)

### 2.2.1 Background

The Defra SMP guidance (Defra, 2006) states that the environmental effects of all policies must be considered before deciding which policies will be adopted. Consideration should be made with regards to both the positive and negative effects of options on wildlife and habitats, populations and health, soil, water, air, climate factors, landscape, cultural heritage and the intrinsic relationship between these.

Under Directive 2001/42/EC of the European Parliament and of the Council, and the associated Environmental Assessment of Plans and Programmes Regulations 2004, the Strategic Environmental Assessment (SEA) must be made of plans and programmes that are required by legislative, regulatory or administrative provisions. SMPs clearly set a framework for future development and have much in common with the kind of plans and programmes for which the Directive is designed. As a result, it is recommended (Defra, 2006) that operating authorities assess policies using the approach described in the Directive, with the legislative act which transposes the Directive into domestic law being the Environmental Assessment of Plans and Programmes Regulations (SI 1633, 2004). The intention of the Directive is to "*provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development*".

The SEA provides a systematic appraisal of the potential environmental consequences of high-level decision-making (i.e. plans, policies and programmes). By addressing strategic level issues, SEA aids the selection of the preferred options, directs individual schemes towards the most appropriate solutions and locations and helps to ensure that resulting schemes comply with legislation and other environmental requirements.

Within the SEA process and in a manner analogous to that used throughout the SMP (Defra, 2006), the term environment is used to cover landscape and natural beauty, wildlife, habitats, and buildings, sites and objects of archaeological, architectural or historical interest, human health, population, water, air, climatic factors and material assets. The approach undertaken for the SEA of the West of Wales SMP2 is based on several key guidance documents, namely: Environmental Assessment of Plans and Programmes (Wales) Regulations 2004; the Office for the Deputy Prime Minister (ODPM, 2005) guidelines; the Defra Guidance on SEA (2004); and Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners (Countryside Council for Wales, English Nature, Environment Agency, Royal Society for the

Protection of Birds, 2004). The SEA process is essentially divided into two distinct elements, the scoping stage and the environmental report. The purpose of the scoping stage is to establish the environmental baseline and identify the key environmental issues to be considered during subsequent stages of the SEA, including the development of assessment criteria which provides the basis for the assessment of SMP policy. With this in mind, the overall aims of the SEA associated with this SMP were to:

- Provide for a high level of environmental protection;
- Ensure that likely significant effects on the environment of the implementation of the SMP are identified, described and evaluated, so that they can be taken into account before the plan is adopted; and
- Evaluate reasonable alternatives for their likely significant effects, taking into account the objectives and geographical scope and the SMP policies, so that these can inform the nature and content of the SMP.

### 2.2.2 Evaluation of the Plan and Alternatives

The function of a SMP is to consider the coast as a whole from the perspective of managing coastal flood and erosion risk. The behaviour of the West of Wales coastline is driven by its geological and geomorphology make-up and it is therefore evident that no one aspect of the coastal environment (in terms of its physical behaviour, natural or built) dominates. There is a complex interdependence between different values along this coast that means that a decision taken within one policy unit has the potential to affect the adjacent policy units. It was, therefore, considered inappropriate that a simple rigid procedure of option appraisal over individual sections of the coast could be undertaken in deriving policy.

### 2.2.3 Monitoring Requirements

In assessing the West of Wales SMP, areas of uncertainty have remained which were critical to the implementation of shoreline management. The SEA process has developed mitigation and monitoring to address specific issues identified throughout the development of the SEA. The need for this is management area specific and should largely be the responsibility of the operating authorities or coastal managers within that area. This not only would then provide the information necessary to inform the on-going development of the plan but also provides essential contact between the development of the coast at this local level and decisions being made.

In addition, there are seen to be important linkages at an SMP scale. In finalising the Plan, these have been brought together in the development of the main action plan, introducing overall coherence for monitoring the SMP area, which will be delegated to one organisation. The approach to and requirement for monitoring is discussed in Section 7. Detailed monitoring and definition of mitigation requirements will be undertaken as part of on-going management and development of strategy studies.

## 2.3 Appropriate Assessment (AA)

### 2.3.1 Background

The need for Appropriate Assessment arises under the requirements of the EC Habitats Directive (92/43/EEC) and its implementation in Wales under IVA of the Habitats Regulations (The Conservation (Natural Habitats, & c.)(Amendment) (England and Wales) Regulations 2007). It considers the likelihood of the policies and statements contained within the Welsh Spatial Plan Update, 2008 (WSPU) to have significant adverse effects either alone, or in combination upon European sites designated under the EC Birds and Habitats Directives as well as sites designated under the Ramsar Convention.

A European site or *Natura 2000* site is either a Special Area of Conservation (SAC) or a Special Protection Area (SPA). In accordance with TAN 5 Nature and Conservation Planning (2009), Ramsar sites and pSPAs. should also be subject to the provisions of the Habitats Regulations. Ramsar sites, SPAs and SACs, are collectively referred to as 'international sites'

AA is the process to support a decision by the 'Competent Authority', in this case Pembrokeshire County Council, as to whether the proposed plan or project would have an adverse effect on the integrity of any international site. Only where the plan or project can be determined as not having an adverse effect on any European Site can it be approved by the Competent Authority. In accordance with TAN 5 Nature and Conservation Planning (2009), is that the provisions of the Habitats Regulations should be similarly applied to wetlands of international important designated under the Ramsar Convention ('Ramsar sites').

Where it is not possible to determine that a plan or project under consideration will not have an adverse effect on a European or Ramsar site, then alternative solutions which avoid harming site integrity must be sought. If alternatives are not possible, then the plan or project can only proceed on the basis of imperative reasons of over-riding public importance (IROPI). If IROPI is agreed by the Assembly Government then compensatory measures must be secured to offset damage done by the plan or project, such that the overall coherence of the SAC/SPA network is maintained.

The favourable conservation status of the site is defined through the site's conservation objectives and it is against these objectives that the effects of the plan or project must be assessed. Conservation objectives set out the physical, chemical and biological thresholds, and limits of anthropogenic activity and disturbance which are required to be met to achieve the integrity of the site. Conservation objectives serve both as criteria against which site condition can be assessed and reported against, and also as a basis for assessing plans or projects which may affect the site.

Conservation objectives for European Marine Sites are set out in the Relevant Regulation 33 documents (so called as their production is a requirement of Regulation 33 (2) of the Habitats Regulations) for each site, which for English European Marine Sites in Wales are the responsibility of Countryside Council of Wales (CCW).

### 2.3.2 Appropriate Assessment in the Land Use Plan Context

On the 20th October 2005, the European Court of Justice (ECJ) ruled that the UK had not transposed the Habitats Directive into law in the proper manner. Land use plans were incorrectly described under the UK Habitats Regulations as not requiring an AA to determine the impacts of the plan on sites designated under the Habitats and Birds Directives. The following documents: *“The Assessment Plans in Wales under the provisions of Habitats Regulation”* (WAG, 2006), *“TAN 5 - Nature Conservation Planning”* (WAG, 2009), *“Wales Spatial Plan Update Habitats Regulations Assessment & Appropriate Assessment”* (WAG, 2008), *“Planning for the Protection of European Sites: Appropriate Assessment”* (DCLG, 2006), *“The Assessment of Regional Spatial Strategies under the Provisions of the Habitats Regulations – Draft Guidance”* (English Nature, 2006), and *“Appropriate Assessment of Flood Risk Management Plans Under the Habitats Regulations”* (Environment Agency, Draft document) currently provide the most cohesive source of guidance relating to the provision of Appropriate Assessments for Shoreline Management Plans. Accordingly, these documents have been used as in the approach and methodology for establishing the scope of the Appropriate Assessment for the West of Wales SMP2.

An AA is therefore simply a mechanism to establish the actual scale and implications of impacts and to provide a determination on whether a course of action is acceptable or unacceptable, in terms of its impacts on the integrity of international sites.

### 2.3.3 Identification of Competent Authority for the SMP

One of the first steps in assessing SMPs under the Habitats Regulations is identification of the competent authority. In this instance, Royal Haskoning is undertaking the technical analysis which forms the basis of the appropriate assessment, but the ultimate responsibility for signing off the appropriate assessment and ensuring compliance with the Habitats Regulations falls to the competent authority. In this instance, the **competent authority is Pembrokeshire County Council.**

### 2.3.4 Requirement for an Appropriate Assessment (AA) for the SMP2

During the development of the West of Wales SMP, the opportunity has been presented to align the development of SMP policy with the requirements of the Habitats Regulations, allowing for the development of SMP policy which takes into account site integrity.

Nonetheless, on the basis of the nature of SMPs, in terms of their critical role in determining key coastal processes, and thus the extent and status of internationally designated natural habitats along the coastline of the West of Wales, *it can not be concluded that there would not be a likely significant effect of the SMP on the site.* The SMP has therefore been subject to an AA.

The full detail of the AA for the *Natura 2000* sites associated with the West of Wales SMP is provided as Appendix G.

## **2.4 Water Framework Directive (WFD)**

### **2.4.1 Background**

The EU Water Framework Directive was transposed into Welsh law as the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003. The requirements of the Directive need to be considered at all stages of the river and coastal planning and development process. For the purposes of large-scale plans, such as SMPs, the consideration of the requirements of the Directive when setting and selecting policies is of high level. However, it sets the framework for future delivery of detailed smaller-scale strategies or schemes. The Directive requires that Environmental Objectives be set for all surface and groundwater bodies in each EU member state.

In order to achieve these Environmental Objectives, a set of specific mitigation measures has been set for each River Basin District (RBD). These measures are to mitigate impacts that have been, or are being, caused by human activity. In other words, measures to enhance and restore the quality of the existing environment. These mitigation measures will be delivered through the RBMP Process and are listed in the Programme of Measures within the RBMP.

### **2.4.2 WFD Assessment Process for the West of Wales SMP2**

The methodology devised for the assessment of the West of Wales SMP2 follows the Guidance for the assessment of SMPs under the Directive and has been developed by the Environment Agency. An initial screening of the Draft River Basin Management Plan has allowed the SMP2 policy development to be influenced by the RBMP and to consider opportunities for delivering mitigation measures for Heavily Modified Waterbodies.

All Transitional and Coastal Waterbodies and Groundwater Bodies in the West of Wales SMP2 area were identified and assessed along with freshwater bodies that are within the Environment Agency's Tidal Flood Zone 3 (0.5% annual flood probability).

For all transitional, coastal and freshwater bodies in the SMP2 area, the hydromorphological parameters that could be changed by SMP policies, with potential impact on Biological Quality Elements, were identified. Groundwater bodies were also considered.

The suggested SMP2 policies were, for each policy unit, assessed against the Environmental Objectives. A summary of achievement (or otherwise) of the Environmental Objectives at the water body scale was completed.