2 ENVIRONMENTAL ASSESSMENT

Environmental, social, technical and economic issues have all been considered in developing the draft North Solent SMP. Accordingly, it is important to understand the relationship and interaction between the requirements for coastal defences and the built and natural environment, landscape, amenity open space, heritage and recreation, in order to provide a high level of protection to the environment in its broadest sense.

This chapter outlines the strategic process undertaken for the environmental appraisal of the North Solent SMP based on the key requirements of the European SEA Directive (2001/42/EC) and EC Habitats Directive (92/43/EEC).

2.1 SEA Directive Requirements

The requirement for a Strategic Environmental Assessment (SEA) comes from the European Directive 2001/42/EC of the European Parliament and of the Council on the assessment of the effects of certain plans and programmes on the environment.

The objectives of the SEA Directive are to provide for a high level of protection to the environment and to contribute to integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring an environmental assessment is carried out for certain plans and programmes. The SEA Directive introduced the statutory requirement of an SEA for plans and programmes into the UK in July 2004. This was further implemented by secondary legislation for England and Wales via The Environmental Assessment of Plans and Programmes Regulations 2004 (SI 1633, 2004), known as the 'SEA Regulations'.

The SEA Directive is intended to ensure that environmental considerations are incorporated into decision making, alongside other economic and social considerations, in an integrated way, during the development of plans and programmes. The Directive requires that the assessment process identifies, describes and evaluates the likely significant effects on the environment of implementing the plan and reasonable alternatives taking into account the objectives and the geological scope of the plan (Article 5.1). There is no legal requirement to undertake an SEA for SMPs because they are not required by legislative, regulatory or administrative provisions. However, SMPs do set a framework for future planning decisions and have the potential to result in significant environmental effects. Therefore, the Department for Environment, Food and Rural Affairs (Defra) recommended that SMPs should broadly comply with the requirements of the Directive, and that the environmental appraisal of SMPs be undertaken in line with the approach in the SEA Directive (Defra 2006).

In March 2009, the Environment Agency's SMP Quality Review Group (QRG) instructed that a separate SEA would be required, instead of being integrated into the main SMP. The EA issued guidance in April 2009 (SEA: advice for application to SMP - Operational Instruction 80-09) as to how the separate SEA should be produced, but the guidance was aimed at newly-beginning or vet to begin SMPs, rather than for an SMP which had already completed the majority of the phases within the policy appraisal process, as was the case with the North Solent SMP. A methodology was produced, approved by the EA, which aimed to demonstrate clearly how the decision making process adopted by the North Solent SMP was compliant with the SEA Directive; further details are presented in Appendix K. Environmental considerations conservation, land use, heritage, landscape, comprehensively incorporated throughout the policy appraisal process. Following the Draft SMP guidance, these factors and implications were integrated within the various supporting appendices and reports. The timing of the requirement for a separate SEA report (Appendix K) has therefore been produced post-policy appraisal, as the proposed policies had already been determined.

2.2 The Existing Environment

The coastline covered by this plan has a rich diversity in its physical form, human usage and natural environment including cliffs of both habitat and geological interest, low-lying plains fronted by dunes and beaches, towns and villages along the coastal fringe and areas of agricultural land. This combination of assets creates a coastline of great value, with a tourism economy of regional importance.

The current state of the environment is described in the Appendix D Theme Review. This identifies the key features of the natural and human environment of the coastline and includes commentary on the characteristics, status, relevant designations and importance of the features and the 'benefits' they provide to the wider community. In addition to the review of the natural and human environment, the extent and nature of existing coastal defence structures and management practices are presented in Appendix C, along with an assessment of shoreline dynamics and interactions, which identifies the contemporary physical form of the coastline and the natural processes operating upon it.

2.3 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 a hypothetical scenario of 'No Active Intervention' (Appendix C), which identifies the likely physical evolution of the coast without any future

defence management and hence the potential risks to shoreline features. These objectives include all relevant plans, policies, etc, associated with the existing management framework, including all identified opportunities for environmental enhancements.

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 are presented in Appendix E.

Appendix G includes consideration of how the objectives, and hence the 'environment', would be affected under the proposed policy scenarios for each frontage, with reference to international and national designations and obligations and biodiversity. Section 5 of this document also details the potential environmental effects of the proposed policies.

2.4 Identification and Review of Alternative Policy Scenarios

Appendix F presents the assessments of the generic policies and policy scenarios identified at each location along the coastline. Using the findings of Appendix F, 'policy scenarios' have been defined. These policy scenarios identify the policy combinations (over the three epochs) taken forward for detailed consideration. The policy scenarios have then been appraised to assess the likely future evolution of the shoreline, from which the environmental impacts have been identified. The results of this assessment, in terms of risks to coastal features, were then used to evaluate the achievement of objectives for the proposed policy scenarios. This is reported in the issues and objectives table in Appendix G.

2.5 The Environmental Effects of the Plan

Based upon the output from the testing of policy scenarios, 61 Policy Units have been defined and a Policy Statement has been developed for each Policy Unit, and presented in Section 5. The Policy Statements present the proposed policy scenario for each Policy Unit, identifying its justification and how it will be achieved over the 100 year period. They also present the detailed implications of the policies and identify any mitigation measures that would be required in order to implement the policy.

This document includes the 'Plan for Balanced Sustainability' (Section 4.1), defining the broad environmental impacts of the plan. This Section also presents the 'Predicted Implications of the Proposed Policies' (Section 4.2) under thematic headings.

2.6 Stakeholder Engagement

The SEA Directive requires the responsible authority undertaking the SEA to seek the views of the consultation bodies on the scope and level of detail of the Environmental Report. Although a separate scoping report has not been produced as part of the SEA process; stakeholders have been consulted on several stages of the SMP development as part of the SMP process.

The Key Stakeholder Group included representatives from landowners, interest groups, nature conservation bodies, industry and heritage organisations. Elected Members were also involved in reviewing the proposed policies prior to public consultation. In this way, the views of those whom the SMP policies affect were involved in its development, ensuring that all relevant issues were considered and all interests represented.

Appendix B Stakeholder Engagement documents all the communications from stakeholders and information arising from the consultation process as part of the SMP development.

2.7 Appropriate Assessment

An Appropriate Assessment is a decision by the 'Competent Authority' (in this case New Forest District Council as lead Authority for the North Solent SMP, on behalf of the Operating Authorities within the Solent) which needs to demonstrate that the plan would not have an adverse effect on the integrity of a European site, either alone or in-combination with other plans and projects.

A European site (also referred to as A *Natura 2000* site) is either a Special Area of Conservation (SAC) identified through the EU Habitats Directive (Council Directive 92/43/EEC) or Special Protection Area (SPA) identified through the Birds Directive (Council Directive 79/409/EEC). Additionally, Ramsar sites listed under the Ramsar Convention 1976 are considered under this heading for the purposes of carrying out an Appropriate Assessment, even though they are not technically classed as European sites.

The legal requirement for an Appropriate Assessment is established in Article 6(3) of the EU Habitats Directive (Council Directive 92/43/EEC), which states:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives".

This has been transposed into national laws through the Conservation (Natural Habitats, &c.) Regulations 1994 (revised in 2010), known as the 'Habitats Regulations'. Recently the European Court of Justice ruled that the UK had failed to correctly transpose the provisions of Article 6 (3) and (4) of the Habitats Directive into UK Law. The amended regulations came into force

in 2007; Regulation 85 states the requirement of an Appropriate Assessment for land-use plans. Although SMPs are themselves not land-use plans they do have the potential to influence the development of land. Therefore, the Department for Environment, Food and Rural Affairs (Defra) and Natural England (NE) agreed that SMPs require an Appropriate Assessment if it is likely to have a significant effect on a European site.

The vast majority of the north Solent defences are fronted and/or backed by European designated sites or by non-designated sites that support the function of designated sites (e.g. high tide roost sites); therefore the North Solent SMP policies will have some form of significant effect upon these designated habitats whether defences are held, re-aligned or not maintained, thereby triggering the requirement for an Appropriate Assessment.

Intertidal habitat losses and gains and freshwater, grazing marsh and saline lagoon losses were quantified for the SMP and Appropriate Assessment using the findings from the Solent Dynamic Coast Project (SDCP) (SDCP, 2008). The SDCP (2008) followed the Solent Coastal Habitat Management Plan (CHaMP, 2004), adding additional historical data sets to examine saltmarsh loss. In addition, a Geographical Information System technique, using lidar, was applied to predict future mudflat and saltmarsh loss and identify potential inter-tidal habitat creation sites. The full detail of the Appropriate Assessment is provided in Appendix J. This assessment tests the impact of the preferred SMP policies to confirm whether the policies will have an adverse impact on the European designated sites.

2.8 Monitoring Requirements

Where the proposed policies for any Policy Unit have specific monitoring/study requirements to clarify uncertainties, this is identified in the relevant 'Policy Unit Statement'. Detailed monitoring, as will be stated in the Action Plan for the final SMP, could be undertaken within the existing Southeast Strategic Regional Coastal Monitoring Programme or undertaken as part of Coastal Defence Strategy studies. The latter will also define mitigation requirements. Environmental data collection required to monitor the significant impacts of the SMP are identified in Appendix K, Annex K3. Key monitoring requirements include:

- Extent of coastal flooding and number of houses affected
- Injuries or loss of life caused by coastal flooding incidents
- Loss of assets due to coastal flooding and coastal erosion
- Number of incidents of coastal flooding and disruption to infrastructure
- Continued monitoring of BAP habitat gains/losses particularly in areas subject to coastal squeeze and where managed realignment has been identified
- Continued monitoring by Natural England of SSSI units that underpin the
- European designated sites

- Bird surveys to monitor the impact of the SMP policies on feeding and roost sites
- Loss/disruption to footpaths
- Loss of agricultural land and impacts on Environmental Stewardship schemes from management realignment policies
- Water quality of coastal, transitional and ground water bodies
- Quantities of natural and recycled resources used for maintenance of coastal defences
- Additional investigations to survey and record any loss/damage to heritage
 - assets as a result of adopting and implementing policies