

## Statement of Environmental Particulars for the Suffolk Shoreline Management Plan 2

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## Section 1 – Introduction

This Statement of Environmental Particulars (SoEP) indicates how environmental considerations, and the views of consultees and interested parties, were taken into account during the preparation of the second Shoreline Management Plan (SMP) for Suffolk. It explains how Suffolk Coastal District Council and the Client Steering Group (the Environment Agency, Waveney District Council, Suffolk County Council, Natural England and English Heritage) selected the preferred options in the plan.

Several issues have been raised through the consultation on the draft SMP and the accompanying Environmental Report (ER) prepared as part of the Strategic Environmental Assessment (SEA) process. These are addressed in this document and include clarifications on significance thresholds used for the SEA assessment and possible 'double-counting'.

Although following consultation there have been minor changes to the Water Framework Directive (WFD) report this has not led to any substantive changes in the outcome of the WFD assessment. Therefore there has been no change to the SEA assessment with respect to the WFD criterion.

This statement goes on to set out the procedures that will be established to monitor the significant environmental effects of implementing the plan. In addition, it also provides an overview of the assessment based on the final suite of policies that were agreed post-consultation, and the revised assessment. Further detail is provided for situations where the assessment has been revised, for the criteria affected, in appendix 1. This provides an overall environmental assessment based on the policies in the final plan.

#### **Purpose of this SEA Statement of Environmental Particulars**

This SoEP meets a requirement under the Environmental Assessment of Plans and Programmes Regulations 2004<sup>1</sup> ('The SEA Regulations'). It sets out how the findings of the SEA, and views expressed during the consultation period, have been considered as the Suffolk SMP2 has been finalised.

## Section 2 – Background

#### The Suffolk Shoreline Management Plan 2

A SMP is a large-scale assessment of the risks associated with coastal processes. The Suffolk SMP2 covers around 72 kilometres of coastline, stretching from Lowestoft Ness to Landguard Point, Felixstowe. It aims to reduce the risks to the social, economic, natural and historic environment through effective and sustainable shoreline management.

<sup>&</sup>lt;sup>1</sup> SI 1633 2004, which transposes 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 SEA Directive') into English law.

The Suffolk coast has a wide variety of environmental assets, including both national and international conservation designations, and landscape designations. It also accommodates an extensive range of commercial, recreational and tourism-based activities. The SMP has sought to achieve a balance between the relevant social, economic and environmental issues, seeking the most beneficial approach overall.

Management units within the SMP are defined according to coastal processes and provide a series of policies for a spatial area. These are described fully in the main SMP2 documents. As the 'building blocks' for the SMP they were considered the most appropriate level for consideration by the SEA. The assessment is therefore provided for the following units:

- LOW (1.1-4.3)
- KES (5.1-3)
- BEN (6.1-3)
- COV (7.1-2)
- SWD (8.1-3)
- BLY (9.1-5)
- BLY (10.1-3)
- DUN (11.1-4)

- MIN (12.1-4)
- MIN (13.1-3)
- ALB (14.1-4)
- ORF (15.1-2)
- HOL (16.1-5)
- DEB (17.1-4)
- DEB (18.1-2) and FEL (19.1-5 & 20.0-1)

#### **Strategic Environmental Assessment**

In order to ensure environmental considerations were integrated throughout the development of the SMP, a non-statutory SEA was undertaken according to usual Environment Agency procedures, and following the requirements of the SEA Regulations. The assessment seeks to ensure that any potentially significant effects of the SMP on the environment are considered throughout its development, and that opportunities for environmental enhancement are identified and realised. It reinforces procedures in the SMP guidance that acknowledge the importance of a range of features assessed by the SEA.

In SEA, and throughout the SMP process, the term 'environment' covers a wide range of issues, broadly encompassed by the following receptors (defined in the SEA Regulations):

- population and communities (including human health, critical infrastructure, etc.)
- cultural heritage, including architectural and archaeological heritage
- material assets
- biodiversity, fauna and flora
- soil
- water
- air
- climatic factors
- landscape.

The SEA process for the Suffolk SMP has included a Scoping Report (circulated to statutory consultees in January 2009) and an Environmental Report (ER) (appendix F of the draft SMP2). Following the consultation on the draft SMP the ER was itself updated into the form which accompanies the published SMP.

As well as this SoEP, and on completion of the SMP2 process, we will produce a post-adoption statement. This will provide details of how to view and obtain copies of all the above documents.

## **Section 3 - Alternatives**

The intention of the SMP is to provide a long-term vision for the management of the coast. The guidance makes it clear that the:

"distinction between the 'preferred plan' and 'policies' should also be recognised. The 'plan' represents the long-term vision, considering the interactions and implications across the whole SMP and identifies the changes required to achieve that. The 'policies' are the means of achieving this plan at the local level over discrete timescales." (Defra 2006, Volume 2: Procedures, p11)

This is combined with the fact that the SMP2 guidance (Defra 2006) provides a limited range of high-level policy options, outlined in table 3.1. The policy options determined are those considered best for delivering the long-term vision, considered appropriate by the Client Steering Group. The strategic vision was determined, in line with the guidance, being mindful of the constraints and opportunities along the Suffolk coast. There are therefore very limited alternatives available without jeopardising the delivery of the preferred vision at the plan (macro) level.

In this SMP the true alternatives exist only at the plan level, being those strategic visions that lie between continued present management and no active intervention. In SEA terms, as the assessment was to a large degree retrospective (see section 4), and no formal assessment of alternatives at the PDZ or management unit level is available. However, further information on policy selection can be found in section 4 of the SMP main document.

#### Table 3.1 Options used in SMP development

| SMP option                      | Description of option   |
|---------------------------------|---|
| Hold the line (HTL)             | Hold the existing defence line by maintaining or changing<br>the standard of protection. This policy will cover those<br>situations where work or operations are carried out in<br>front of the existing defences (such as beach recharge,<br>rebuilding the toe of a structure, building offshore<br>breakwaters and so on), to improve or maintain the<br>standard of protection provided by the existing defence<br>line. This includes other policies that involve operations<br>to the back of existing defences (such as building<br>secondary flood walls) where they form an essential part<br>of maintaining the current coastal defence system. |
| Advance the line<br>(ATL)       | Advance the existing defence line by building new defences on the seaward side of the original defences. Using this policy should be limited to those policy units where significant land reclamation is considered.  |
| Managed<br>realignment (MR)     | Managed realignment by allowing the shoreline to move<br>backwards or forwards, with management to control or<br>limit movement (such as reducing erosion or building new<br>defences on the landward side of the original defences).   |
| No active<br>intervention (NAI) | No active intervention, where there is no investment in coastal defences or operations.   |

# Section 4 – Integration of environmental considerations

The decision to provide a stand-alone SEA for the Suffolk SMP was taken after the SMP process began. Up to that point, SMPs had been accompanied by a 'signposting' exercise which highlighted where elements of the SMP addressed the requirements of the SEA Regulations.

Accordingly, the use of SEA in developing, refining and selecting the Suffolk SMP2 policies was limited. Nevertheless, the SMP followed the Defra SMP guidelines (Defra, 2006) which are intended to ensure that a consideration of environmental, social and economic factors is central to the development of policy options (this approach reflects the intentions of the SEA Directive and Regulations). Assessment of the preferred options in the SEA ER demonstrated that a balanced approach was taken to selecting the policies with the most beneficial outcomes across the range of 'environment' receptors specified (see section 2).

The SEA process has developed two distinct documents: a Scoping Report and an Environmental Report. These are described below.

### The Scoping Report (January 2009)

The Scoping Report established an environmental baseline for the coastline of Suffolk, and a framework for assessing the potential impacts and benefits resulting from implementing the SMP policies. These SEA assessment criteria, by which SMP policies could be assessed, were discussed and refined through consultation with statutory consultees. The suite of environmental concerns highlighted and considered through the SEA was:

- threats to biodiversity on a dynamic coast
- threats to the environmental conditions to support biodiversity and the quality of life
- need to maintain a balance of coastal processes on a dynamic linear coastline with settlements at estuary mouths and the implications of sea level rise
- protection of a sustainable water supply in the coastal zone
- threats from development and coastal management on the coastal landscape and AONB
- potential loss of historic and archaeological features on a dynamic coastline
- threats to coastal communities and culture on a dynamic coastline
- protection of coastal towns and settlements
- protection of key coastal infrastructure (roads, bridges etc).

#### The Environmental Report (June 2009)

Following the Scoping Report (and accompanying internal consultation), the preferred policy options for the Suffolk SMP were assessed in the ER. On the basis of that assessment, the Suffolk SMP was considered to have been successful in considering the range of environmental concerns. The majority of the remaining impacts identified are either minor positive or neutral. While several major positive impacts are likely to result from the adoption of the preferred policies, seven major and several minor negative impacts were identified.

Major negative impacts of the SMP, acknowledged in table 6.5, relate to:

- 1) At East Lane (HOL 16.5) the intention to HTL is regarded as interrupting the natural evolution of the coast to a significant extent
- 2) Adverse effects on the integrity of two internationally-designated sites (through impacts on habitats supporting Special Protection Area<sup>2</sup> (SPA) and Ramsar<sup>3</sup> features) within four assessment areas (BLY 10.1 to 10.3, DUN 11.1 to 11.4, MIN 12.1 to 12.4 and COV 7.1 to 7.2). The designated sites are the Benacre to Easton Bavents SPA and the Minsmere-Walberswick SPA and Ramsar site
- 3) Negative impacts on the fabric and setting of historic listed buildings and conservation areas (DUN 11.1 to 11.4 and MIN 12.1 to 12.4)

<sup>&</sup>lt;sup>2</sup> Designated under the Council Directive 2009/147/EC on the conservation of wild birds (the Birds Directive).

<sup>&</sup>lt;sup>3</sup> Designated under The Convention on Wetlands of International Importance, especially as Waterfowl Habitat

In these instances, negative impacts are anticipated from policies that have been selected in order to maintain wider environmental values.

In addition to these, minor negative impacts have been determined. The more significant of these relate to:

- 1. Committing future generations to spend more money on defences to maintain the current level of protection (in seven assessment units)
- 2. Policies that work against natural processes (in five units)
- 3. Net loss of UK BAP habitat over the timescale of the SMP (in four units)
- 4. Unsustainable approaches to habitat management (in two units)
- 5. Policies causing Sites of Special Scientific Interest (SSSI) to fall into unfavourable condition (in two units)
- 6. Loss of access along the Suffolk coast (in two units)
- 7. In two units the policies, on balance, work against coastal processes

Despite these effects, the SMP can also be concluded to have provided a range of positive environmental benefits. The major positive impacts that were identified relate to:

- 1. Policies that enable natural development of the coast and promote sustainable approaches to habitat management. This includes not defending unsustainable habitats (3 units)
- 2. Policies which accept dynamic coastal change and are in balance with natural coastal processes, while allowing for the appropriate defence of established settlements and infrastructure (5 units)
- 3. Reduction in the amount required for future defence works through MR policies (1 unit)
- 4. Implementation of policies that work with natural processes (3 units)
- 5. Providing protection to historically undefended communities through stability of the natural system rather than localised defences (1 unit)

Where negative impacts have been identified, monitoring has been devised to assess these impacts and determine necessary mitigation. Some of the negative impacts could also be avoided/reduced by scheme level mitigation. A summary of findings is given in table 6.4, while monitoring is outlined in section 7.

# Section 5 – Influence of the Environmental Report

As described previously, because the SMP was progressed in advance of the SEA, it cannot be demonstrated that the SEA influenced the development of SMP policies. However, the consideration of environmental factors has played a crucial role in developing the SMP, as documented in appendix G of the SMP – Scenario testing. This consideration of environmental factors was based on adherence to SMP guidance, and has previously been considered sufficient to meet the requirements of the SEA Regulations. The

environmental elements of the SMP process (such as the features, issues and objectives and scenario testing) had full regard to how the policies may affect environmental 'receptors'. This process informed the development of the SMP. Although the ER also followed this process, it confirms that the SMP achieved its intentions. It further confirms that the Suffolk SMP delivers a range of environmental benefits as well as the negative effects identified in section 4. Consideration of environmental issues can therefore be shown to have influenced the development of SMP policies.

The mitigation and monitoring required, based on the conclusions of the Environmental Report and policy appraisal, is discussed in section 7. It should be noted that further assessment of environmental impacts and habitat regulation assessments will be carried out at strategy and scheme level as the intentions of the SMP are delivered. The monitoring and mitigation requirements will be reviewed as part of the next review of the shoreline management plan (SMP3).

## **Section 6 – Consultation**

#### **SEA Scoping Report**

The Scoping Report underwent a four-week consultation with the Environment Agency, Natural England, English Heritage, Suffolk Coastal District Council, Waveney District Council and Suffolk County Council between 13 January and 10 February 2009.

A SEA workshop was also held, attended by representatives from Suffolk Coastal District Council, the Environment Agency, Natural England, English Heritage and Royal Haskoning. The discussion mirrored comments that were previously received and focussed on ensuring that the assessment criteria were more specific to:

- the range of designated sites and habitats under UK and environmental legislation
- the range of heritage features that should form the basis of any assessment.

Changes to the assessment criteria resulting from consultation ensured that ecological and historic environment features were assessed in an appropriate manner and to a consistent level of detail. In addition, the consultation process provided the opportunity to scope out the following two receptors. Although defined in SI 1633, they were considered not to be relevant to this assessment due to the intangible manner in which SMP policies could influence them:

- climatic factors
- air.

### **SEA Environmental Report**

The Environmental Report underwent a three-month public consultation period from 1 July 2009 to 30 September, as part of the public consultation for the draft SMP. Table 6.2 outlines the comments received about the Environmental Report and subsequent actions taken to respond to them.

| Table 6.2 | Consultation responses and actions for the Environmental |
|-----------|--|
| Report    |  |

| Organisation              | Response   | Action/Comment  |
|---------------------------|--|---|
| Suffolk County<br>Council | The County Council's view is that<br>it is inaccurate for the SMP to<br>state that the proposed policies<br>will be positive for the environment<br>overall (Strategic Environmental<br>Assessment, page 55). Parts of<br>the designated AONB will be lost<br>or changed forever. Freshwater<br>habitats and agricultural land will<br>be lost (or devalued by saltwater<br>intrusion), small isolated<br>communities will be more at risk<br>and the visual appearance of the<br>coast will change. These are all<br>part of the environment and<br>landscape and the reasons behind<br>the AONB designation. | <ul> <li>Despite some areas of the AONB, and some habitats, potentially being lost, the overall effect of the SMP (on balance) was assessed as positive.</li> <li>The SMP was developed (with stakeholders) to offer a plan that enabled the character of the Suffolk coastal environment to be maintained (protecting some areas and enabling the natural development of the coast in others). Within the assessment it was acknowledged that this dynamic nature (which is important to character and ecology) may result in some features being lost</li> <li>The SEA has been undertaken in consultation with all appropriate bodies. The SEA is set out in a transparent manner so that the rationale behind all conclusions is clear and open.</li> <li>An alternative position, defending the entire coast, would jeopardise the dynamic nature of the coast and result in habitat loss. A negative score would then be more appropriate.</li> </ul> |
|                           | As a high level strategy the SMP<br>identifies and gives some<br>consideration to designated<br>scheduled monuments, but there<br>is no attempt to assess these<br>monuments in their landscape<br>setting or in relation to each other<br>or to other less significant historic   | No change made to ER.<br>Following consultation, text was<br>added to a revised version of the<br>ER (sections 3.2 and 3.3),<br>highlighting the importance of the<br>landscape importance of historic<br>environment features. This was<br>discussed with English Heritage<br>and Suffolk County Council   |

| Organisation | Response   | Action/Comment   |
|--------------|--|--|
|              | assets. Although the coastal<br>grazing marshes are an essentially<br>artificial landscape their<br>significance as such seems not to<br>be considered. For example, the<br>landscape loss of Leiston first<br>abbey is seen in landscape terms<br>as the loss of a single 'small<br>chapel' (SEA, 5.4.4) ignoring the<br>relationship of the abbey site on its<br>island with adjacent early<br>reclaimed marshland.  | officers, and English Heritage<br>joined the CSG through the later<br>stages of the SMP process.   |
|              | The County Council feels the SEA<br>scoring system needs to be<br>challenged with regard to the<br>assessment of the historical<br>environment. Within the document<br>the destruction of regionally<br>important assets has been<br>allocated as a "minor positive"<br>outcome. This is at odds to other<br>similar assessments of our built<br>Heritage.   | As above, the SMP was developed<br>(with stakeholders) to offer a plan<br>that enabled the character of the<br>Suffolk coastal environment to be<br>maintained (protecting some areas<br>and enabling the natural<br>development of the coast in<br>others). Within the assessment it<br>was acknowledged that this<br>dynamic nature (which is important<br>to character and ecology) may<br>result in some features being lost.<br>The SEA is set out in a transparent<br>manner so that the rationale<br>behind all conclusions is clear and<br>Where a policy takes an active<br>approach to provide additional<br>long-term protection for historic<br>assets, but may lead to the loss of<br>a singular asset, the overall effect<br>is considered positive. |
|              | PDZ3/PDZ4: At Dunwich there is a<br>major omission in the Strategic<br>Environmental Assessment as the<br>nationally important Greyfriars<br>Monastery has been completely<br>omitted, falling as it does just<br>south of the PDZ3/PDZ4 line. The<br>text refers to it (PDZ3:32) but only<br>in terms of the upstanding ruin<br>rather than the site as a whole.<br>The estimated cost for full<br>recording by excavation of this site<br>was estimated at £1million, 10<br>years ago. | No action taken to change the ER.<br>Noted. The PDZ boundary line has<br>been moved to reflect that<br>Greyfriars priory lies within the<br>area of the village (figures in PDZ3<br>and PDZ4).   |

| Organisation        | Response   | Action/Comment  |
|---------------------|--|---|
| English<br>Heritage | There ought to be reference that,<br>whilst designated historic assets<br>provide an indication of the<br>significance of historic<br>environment along the coastline,<br>many important archaeological<br>features are not designated in the<br>inter-tidal zone due to the dynamic<br>setting. Similarly there is likely to<br>be unknown and therefore<br>undesignated archaeological sites<br>in the area. The data in the SEA<br>thus provides a guide, but is not<br>comprehensive.  | Post-consultation, a revised<br>version of the ER was produced<br>(and accompanies the final version<br>of the SMP). Text in section 3.3<br>highlights the importance of<br>undesignated historic environment<br>features and archaeological sites.   |
|                     | Whilst the losses of the Hospital of<br>the Holy Trinity and Leiston Abbey<br>are mentioned, there is no<br>discussion of the village of<br>Covehithe. All these losses are of<br>great concern to English Heritage,<br>since mitigation is never as good<br>as preservation.  | Text in section 5.4.5 of the revised<br>ER highlights the importance of<br>Covehithe.   |
|                     | Like Section 5.4.5, this section<br>also over-relies on reference to<br>Scheduled Monuments when<br>identifying likely major losses. We<br>feel it is essential that the loss of<br>Covehithe, and numerous<br>significant but undesignated<br>historic assets (notably, inter-tidal<br>archaeology) is also flagged. It is,<br>however, appreciated that the<br>issue of funding has been raised in<br>this part of the report.   | Text in section 5.4.6 of the revised<br>ER highlights the importance of<br>Covehithe and undesignated<br>historic assets.   |
|                     | Table A2.6 The gradual/natural<br>approach to realignment should, at<br>best, be regarded as having a<br>neutral impact upon the historic<br>environment – due to provision of<br>adequate time for mitigation. The<br>presence of time does not convert<br>the loss of historic assets into a<br>positive or minor positive, as<br>losses to the historic environment<br>can never be fully overcome by<br>mitigation. Indeed it states in the<br>draft PPS15 in Policy HE13.1 that<br>a documentary record is not as<br>valuable as retaining the asset. | While it is acknowledged that<br>losses of historic environment<br>features are not positive, it is felt<br>that, in the context of the high-level<br>SMP, the assessment for key<br>historic features and conservation<br>areas still applies. A reassessment<br>of the criteria for archaeological<br>and paleo-environmental features<br>has been assessed minor positive<br>to neutral. |

The SEA did not identify any significant environmental effects that required transboundary consultation and no such consultation responses were received.

The overall SMP consultation and stakeholder engagement process is described in the SMP's appendix B - Stakeholder Engagement. The draft SMP consultation is presented in more detail in the public consultation report published in October 2010.

#### Policy changes

Following the consultation on the draft SMP, one of the preferred policies was altered to reflect the responses received. This new policy has been reassessed against the SEA criteria and the appraisal tables have been updated. Table 6.3 details the changes to the preferred policies following consultation. A table giving details of the units and criteria where the assessment has been revised is supplied as appendix 1.

#### Table 6.3 Changes to preferred policies following consultation

| Policy                  | Original preferred policy |                 | New preferred policy |         |                 |                 |
|-------------------------|---------------------------|-----------------|----------------------|---------|-----------------|-----------------|
| Development<br>Unit     | to 2025                   | 2025 to<br>2055 | 2055 to<br>2105      | to 2025 | 2025 to<br>2055 | 2055 to<br>2105 |
| COV 7.2<br>Easton Broad | NAI                       | NAI             | NAI                  | MR      | NAI             | NAI             |

The change in policy from NAI to MR in policy unit COV 7.2 only has implications for the impact on the Benacre to Easton Bavents SPA. The new policy recognises that in the short term there is a need to manage the designated reedbed habitat (which supports SPA features) within Easton Broad to prevent deterioration before compensatory habitat for the SPA features is functional. With the revised policy approach, no adverse effect on the Annex 1 habitat (reedbed) is now expected in the first epoch.

#### Additional issues

As well as addressing comments on the historic environment (which were picked up in the revised ER), and the reassessment following the policy change above, additional queries have been raised about significance thresholds used in the assessment, and about the potential for double-counting between assessment criteria. These points are addressed below.

#### Clarification of significance criteria

In response to the SEA ER, comments were received about clarification of the significance criteria used in the assessment. The considerations below are paramount in determining environmental effects and likely significance:

#### Assessing the significance of effects

- Value and sensitivity of the receptors
- Is the effect permanent / temporary?
- Is the effect positive / negative?
- Is the effect probable / improbable?
- Is the effect frequent / rare?
- Is the effect direct / indirect?
- Will there be secondary, cumulative and / or synergistic effects?

Table 6.4 further summarises how the significance of each effect was established for the assessment criteria. An explanation of how significance was established needs explaining within the SMP context. SMP policies only provide a direction for management (the details are provided at the scheme level), and the timeline of the plan is extremely long (approaching 100 years).

The SMP also deals with dynamic coastal areas, where receptors are subject to a range of human and natural processes and levels of change. The impacts of management direction on receptors are therefore often subject to a high degree of uncertainty and this is acknowledged in the scoring. Where gaps in knowledge exist (relating to the information required to support an assessment of the link between policy and receptor), expert judgement is used or a decision of unquantifiable effect recorded.

#### Table 6.4 Significance determination for SEA assessment criteria

The assessment is based on a guiding principle of scoring minor positive or negative if the effect of a 'policy' is only realised as a result of sea-level rise (ie ongoing background change rather than more definitive or active management intervention). This underpins many of significance decisions in this assessment. This principle should be considered a central consideration throughout the assessment, and is not repeated in the explanations that follow.

| Assessment criterion   | How the significance of SMP effects was established   |
|--|---|
| ISSUE - Maintenance and enhane   | cement of biodiversity on a dynamic coastline   |
| Will SMP policy provide a sustainable approach to habitat management?                          | Where SMP policy would enable the development of a natural mosaic of coastal habitat, a positive score would be provided. If the policy provides for a shift in management (from the present position) that would actively enable a more natural development of coastal habitat, a major positive score would be provided. Where the effects of policy would provide for a continuation of management that supports the development of natural coastal habitat, a minor positive score would be provided. Negative scores would be provided for ongoing management that prevents the development of a range of coastal habitat (minor negative) or provides for a shift in management that would not work with coastal processes and prevent the development of coastal habitat (major negative). |
| Will SMP policy have an adverse<br>effect on the integrity of any<br>international sites?      | If the effect of a policy would lead to an adverse effect on an international site (as defined through the statutory HRA), a major negative score would be provided. A minor negative score would be provided if the effects of policy would not prevent an adverse effect from occurring based on impacts of coastal processes or sea level rise. Minor positive scores would be provided where the effects of policy would prevent an adverse effect from occurring through maintaining an existing policy position or coastal process trend. The provision of a new management position (for example from HTL to MR) to avoid an adverse effect would provide a major positive score. <i>This assessment must consider the potential for double-counting with other biodiversity criteria.</i> |
| Will SMP policy have an adverse<br>effect on the integrity of any<br>Annex 1 priority habitat? | If the effect of a policy would lead to an adverse effect on Annex 1 priority habitat (defined through a statutory HRA), a major negative score would be provided. A minor negative score would be provided if the effects of policy would not prevent an adverse effect from occurring based on impacts of coastal processes or sea level rise. Minor positive scores would be provided where the effects of policy would prevent an adverse effect from occurring through maintaining an existing policy position or coastal process trend. The provision of a new management position (for example from HTL to MR) to avoid an adverse effect would provide a major positive score. <i>This assessment must consider the potential for double-counting with other biodiversity criteria.</i>   |

| Assessment criterion  | How the significance of SMP effects was established  |
|---|--|
| Has SMP policy provided sustainable management for emerging saline lagoon habitat?  | If the policy provides for a shift in management (from the present position) that would actively enable development of saline lagoon habitat, a major positive score would be provided. Where the effects of policy would provide for a continuation of management that supports the development of a saline lagoon habitat, a minor positive score would be provided. Negative scores would be provided for ongoing management that prevents the development of saline lagoon habitat (minor negative) or provides for a shift in management that would not work with coastal processes and prevent the development of saline lagoon habitat (major negative). <i>This assessment must consider the potential for double-counting with other biodiversity criteria.</i> |
| Will there be no net loss of UK<br>BAP habitat within the SMP<br>timeline up to 2100?   | The principle guiding the assessment is one of no overall net loss of BAP habitat. Where there is no net loss of BAP habitat, scores would be provided as positive based on the degree to which policy maintains a natural balance of BAP habitat in a dynamic context. Major or minor negative scores would be provided where the effects of policy would lead to a loss of BAP habitat (the actual determination of major or minor is based on the extent of loss, considered within the context of the overall extent of habitat in the system).  |
| Will SMP policy contribute to<br>further SSSIs falling into<br>unfavourable condition and<br>address the causal factors of<br>existing units that are in<br>unfavourable declining condition<br>(due to coastal management)<br>wherever possible? | For SSSIs, the same principles apply as for UK BAP habitats. However, due to the nature of management obligations under the CRoW Act, major negative scores would only be provided where the effects of policy would cause a site to move into unfavourable condition.   |
| ISSUE - Maintenance of balance  | of coastal processes on a dynamic linear coastline with settlements at estuary mouths  |
| Will SMP policy maintain an<br>overall level of balance across<br>the Suffolk coast with regard to<br>coastal processes, which accepts<br>dynamic change as a key facet of<br>overall coastal management?   | Where SMP policy would enable natural coastal processes, a positive score would be provided. If the policy provides for a shift in management (from the present position) that would actively enable a more natural development of the coast, a major positive score would be provided. Where the effects of policy would provide for a continuation of management that supports coastal processes, a minor positive score would be provided. Negative scores would be provided for ongoing management that prevents the development of natural coastal processes (minor negative) or provides for a shift in management that would not work with coastal processes (major negative).  |

| Assessment criterion  | How the significance of SMP effects was established  |  |
|---|--|--|
| Will SMP policy increase actual<br>or potential coastal erosion or<br>flood risk to communities in the<br>future?   | If the policy provides for an enhanced level of protection (in real terms, in addition to sea level rise), a major positive score would be provided. If the policy maintains the existing level of defence (in the face of sea level rise), a minor positive score would be provided. If the policy would reduce the level of defence, a negative score would be provided. The extent to which the negative extent would be determined as minor or major would depend on whether there would be a need for properties to be relocated (major negative) or if properties would be maintained at a lower level of overall protection (minor).  |  |
| Will SMP policy commit future<br>generations to spend more on<br>defences to maintain the same<br>level of protection?  | A decision has been taken in relation to the likely future financial burden, qualitatively assessed against the current burden. If policy will increase the burden then negative scores would be provided, while decreasing the burden would lead to positive scores being provided.   |  |
| Does the policy work with or against natural processes?   | Where SMP policy would enable natural coastal processes, a positive score would be provided. If the policy provides for a shift in management (from the present position) that would actively enable a more natural development of the coast, a major positive score would be provided. Where the effects of policy would provide for a continuation of management that supports coastal processes, a minor positive score would be provided. Negative scores would be provided for ongoing management that prevents the development of natural coastal processes (minor negative) or provides for a shift in management that would not work with coastal processes (major negative).  |  |
| ISSUE - Maintenance of water su   |  |  |
| Will SMP policy maintain<br>structures to defend water<br>abstraction infrastructure and to<br>avoid any exacerbation of levels<br>of saline intrusion into freshwater<br>aquifers? | Where SMP policy would maintain the present abstraction infrastructure, a minor positive score would be provided.<br>Where the policy provides for enhanced levels of protection for abstraction infrastructure (which may come under<br>threat from erosion or sea level rise), a major positive score may be provided. Typically however, SMP policy seeks<br>to maintain such features by holding existing lines, possibly requiring improvement to defences (to address sea level<br>rise). Under such a scenario a minor positive score would be provided. Where abstraction infrastructure would be<br>lost as a result of policy, the determination would consider whether the entire function of the abstraction infrastructure<br>would be lost (major negative) or whether it could be maintained by providing an amended abstraction point in a<br>more landward position (minor negative). |  |
| ISSUE - Maintenance of the vales of the coastal landscape and Area of Outstanding Natural Beauty (AONB)   |  |  |
| Will SMP policy maintain a range<br>of key natural, cultural and social<br>features critical to the integrity of<br>the Suffolk coastal landscape?                                  | In establishing the effects on the coastal landscape, considerations are based on the maintenance or loss of key features that contribute to the landscape and the need to ensure that the dynamic behaviour of the coast is maintained. Where a policy would lead to the loss of significant features within the coastal landscape, a major or minor negative score would be provided, depending on the extent of the effects of such a loss. Where policy would enable the coast to function 'naturally' (as above) or would enable key features to be maintained, the policy would be   |  |

| Assessment criterion  | How the significance of SMP effects was established  |  |
|---|--|--|
|   | minor positive. A major positive score would be provided where the effects of policy lead to the maintenance of features or processes that actively contribute to the coastal landscape.   |  |
| Will SMP policy lead to the<br>introduction of features that are<br>unsympathetic towards the<br>character of the landscape?  | If policy led to the removal of unsympathetic features, a positive score would be recorded. The introduction of features that lead to a reduction in the character of the landscape would provide negative scores. If the landscape character is maintained, the score would be neutral. <i>This assessment must consider the potential for double-counting with the criterion above.</i>  |  |
| <b>ISSUE - Potential loss of historic</b>   | and archaeological features on a dynamic coastline   |  |
| Will SMP policy maintain the<br>fabric and setting of key historic<br>listed buildings and conservation<br>areas?   | Where policy would lead to the loss of a designated historic asset (defined in the main report), a negative score would be provided. A major negative score would be provided if the effect of policy would be to actively shape management in a new direction leading to such a loss. A minor negative score would be provided for the loss of assets in locations where defence may not be sustainable, or where previous management practice is maintained that may lead to the loss of assets that have come under threat. Minor positive scores would be provided for policy that protects assets as a continuation of management in response to sea level rise. Major positive scores would be provided for policy that protect for new management directions specifically to protect historic assets.   |  |
| Will SMP policy provide<br>sustainable protection of<br>archaeological and palaeo-<br>environmental features (where<br>appropriate) and ensure the<br>provision of adequate time for the<br>survey of archaeological sites<br>where loss is expected? | Where policy would lead to the loss of areas where archaeological assets are considered likely, a negative score would be provided. A major negative score would be provided if the effect of policy would be to actively shape management in a new direction leading to such a loss. A minor negative score would be provided for the loss of areas where archaeological assets are considered likely in locations where defence may not be sustainable, or where previous management practice is maintained that may lead to the loss of such areas that have come under threat. Minor positive scores would be provided for policy that protects areas where archaeological assets are considered likely as a continuation of management in response to sea level rise. Major positive scores would be provided for new management directions specifically protecting areas where assets are considered likely. |  |
| ISSUE - Protection of coastal communities and culture   |  |  |
| Protection of coastal towns and settlements   |  |  |
| Will SMP policy maintain key<br>coastal settlements in a<br>sustainable manner, where the<br>impact of coastal flooding and<br>erosion is minimised and time<br>given for adaptation?   | The assessment here is underpinned by the guiding principle outlined above. Major scores (either positive or negative) would be provided where the effect of policy would be either to enhance or reduce the actual level of protection offered, accounting for sea level rise. Minor positive scores would be provided where the policy maintains the level of defence, by increasing the actual defence offered by sea walls to account for sea level rise. This is considered a minor positive rather than a neutral effect since, as a result of policy, actions would follow to maintain levels of defence for coastal communities.   |  |

| Assessment criterion   | How the significance of SMP effects was established   |
|--|---|
| Will SMP policy protect the<br>'coastal character' of<br>communities that have<br>historically been undefended?  | Where relevant, policy driven by this would be scored major positive. Where character is maintained as a result of the preferred policy, the score would be minor positive to neutral. Negative scores would be recorded where the character is not maintained according to the scale of loss.  |
| Will SMP policy maintain the form<br>or function of features located<br>outside established settlements<br>that are essential to the economy<br>and quality of life of key coastal<br>settlements? | Where key features are maintained, a minor positive score would be provided if policy maintains this protection in response to sea level rise. If the plan provides for additional levels of protection, a major positive score would be provided. Losses would be scored as minor negative if the features lost would still maintain the overall function of such features, or major negative if the loss would lead to a substantive reduction on the function of such features in that area.   |
| Protection of key coastal infrastruct  | ture  |
| Will SMP policy maintain road-<br>based transport connectivity<br>between settlements on the<br>Suffolk coast?   | Where SMP policy would maintain the presence of a road, a minor positive score would be provided. Where the policy provides for enhanced levels of protection for a road (which may come under threat from erosion or sea level rise), a major positive score may be provided. Typically however, SMP policy seeks to maintain such features by holding existing lines, possibly requiring improvement to defences (to address sea level rise). Under such a scenario a minor positive score would be provided. Where a road would be lost as a result of policy, the determination would consider whether the entire function of the road would be lost (major negative) or whether it could be maintained by providing an amended route (minor negative). |
| Will SMP policy maintain rail-<br>based transport connectivity<br>between the Suffolk coast and<br>the national rail network?  | The same principle as roads above.  |
| Will SMP policy maintain or<br>enhance levels of access along<br>or to the Suffolk coast and<br>estuaries?   | The same principle as roads above.  |
| Will SMP policy protect Sizewell nuclear power station in situ?  | The same principle as roads above.  |

## Assessment of the potential for double-counting in the SEA assessment of policies

A particular comment was received about the potential for the SEA assessment to have been influenced to a degree by double-counting between assessment criteria.

We have reviewed this and consider that there was the potential for doublecounting between three of the biodiversity criteria. The two landscape criteria also address similar, although distinctly different, issues. Assessment criteria were devised for specific aspects of the environment and a primary consideration was removing criteria that address exactly the same feature.

The assessment criteria were agreed with the CSG, EA and consultees. There may be some degree of overlap between the criteria, but it is considered that they have been refined to a level that offers meaningful assessment without becoming overly generic. They have been interpreted carefully to ensure there is no double-counting and that the criteria are independent of each other (that is, a score for one criterion does not also determine the score for another), where they are potentially linked.

In particular, the assessment criteria for biodiversity considered impacts on different receptors, as below:

- Will SMP policy provide a sustainable approach to habitat management? Overarching criterion addressing designated and non-designated habitats throughout the plan area.
- Will SMP policy have an adverse effect on the integrity of any international sites? Due to the nature of the features of sites along the Suffolk coast, with

some ephemeral habitats such as saline lagoons, it is possible that habitats might be affected without undermining the integrity of the site. This criterion translates the findings of the statutory HRA.

- Will SMP policy have an adverse effect on the integrity of any Annex 1 priority habitat? Addresses the point above, identifying where there may be impacts to current ephemeral habitats but the conditions for their re-creation are enabled. There is therefore an impact on the designated features but not on the integrity of the sites. This criterion was interpreted in terms of non-saline lagoon habitats (for example, coastal vegetated shingle).
- Has SMP policy provided sustainable management for emerging saline lagoon habitat? *Specific criterion linked to the one above (Annex 1 habitats),*
- addressing impacts only on saline lagoon habitat/management.Will there be no net loss of UK BAP habitat within the SMP timeline up
- Will there be no net loss of OK BAP habitat within the SMP timeline up to 2100?

The approach considered across our SMPs is that the replacement of one UK BAP habitat with another does not represent a negative impact since 'all habitats are considered equal in value'. It should be noted that UK BAP habitat underpins some designated areas, but that such assets have value within each receptor (since their various designations relate to, and achieve, different things).

Will SMP policy contribute to further SSSIs falling into unfavourable condition and address the causal factors of existing units that are in unfavourable declining condition (due to coastal management) wherever possible?
 As with UK BAP habitat, SSSIs underpin internationally-designated areas. However, the SSSI features are not always the same and even common assets have different 'value' since their designations relate to,

and achieve, different things).

An example is within the Minsmere Walberswick Ramsar/SPA site where site integrity is jeopardised due to the loss of reedbed habitat supporting SPA and Ramsar designated bird species. Despite this, the management approach adopted maintains the longer-term sustainability of the area. No Annex 1 habitats are affected and saline lagoons are not present. The transition of BAP habitat from coastal floodplain grazing marsh to saltmarsh is considered to be equal under a no net loss approach. In terms of the SSSI, although designated habitat will be affected, the overall policy is considered beneficial to the ongoing maintenance of the site.

Landscape assessment criteria also considered impacts on different receptors, as below:

- Will SMP policy maintain a range of key natural, cultural and social features critical to the integrity of the Suffolk coastal landscape? This criterion considers existing features which contribute to the landscape value of the coast. If these are maintained than the outcome of the assessment is positive while if they are lost then it would be negative.
- Will SMP policy lead to the introduction of features which are unsympathetic towards the character of the landscape? This criterion considers new features that would be detrimental to the quality of the landscape. Therefore if such features are to be introduced then the assessment would be negative, while guiding the introduction of 'sensitive' new assets would be scored positively. Maintaining existing assets and their landscape impact is addressed through the previous criterion although removal of any detrimental current assets would contribute to a positive score here.

#### Final reassessment of policy and overall conclusions

Table 6.5 summarises the SEA assessment of the finalised policy suite. Assessments where an impact has changed compared with the assessment accompanying the consultation draft of the SMP are indicated by bold borders. The table is colour- and symbol-coded, as in previous documents, according to the legend below. Where the assessment has been altered, the explanations for the changes are provided at appendix 1.

#### Significance of SMP policy

| ++ SMP policy is likely to result in a significant positive effect on the environing SMP policy is likely to have a positive or minor positive effect or |       |
|--|-------|
| SMP policy is likely to have a positive or minor positive effect or  | ו the |
| Sim policy is likely to have a positive of minor positive effect of  |       |
| + environment (depending on scheme specifics at implementation).   |       |
| 0 SMP policy is likely to have a neutral or negligible effect on the environm  | ent.  |
| SMP policy is likely to have a negative or minor negative effect of  | n the |
| environment (depending on scheme specifics at implementation).   |       |
| SMP policy is likely to have a significant negative effect on the environme  | ent.  |
| N/A The assessment criterion does not apply to the SMP policy.   |       |

#### Table 6.5 Combined assessment tables for SEA

|   | SMP management area |               |               |               |               |               |               |               |               |               |               |               |               |               |  |
|---|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
| Assessment criterion  |                     | KES<br>05.1-3 | BEN<br>06.1-3 | COV<br>07.1-2 | SWD<br>08.1-3 | BLY<br>09.1-5 | BLY<br>10.1-3 | DUN<br>11.1-4 | MIN<br>12.1-4 | MIN<br>13.1-3 | ALB<br>14.1-4 | 0RF<br>15.1-2 | HOL<br>16.1-5 | DEB<br>17.1-4 | DEB<br>18.1-2,<br>FEL<br>19.1-5,<br>20.0-1 |
| ISSUE - Maintenance and enhancement of biodiversity on a dynamic coastline  |                     |               |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Will SMP policy provide a sustainable approach to habitat management?   | 0                   | 0             | ++            | ++            | +             | ++            | +             | +             | +             | +             | -             | +             | -             | 0             | 0  |
| Will SMP policy have an adverse effect on the integrity of any international sites?   | N/A                 | N/A           | +             |               | N/A           | N/A           |               |               |               | 0             | +             | 0             | +             | +             | N/A  |
| Will SMP policy have an adverse effect on the integrity of any Annex 1 priority habitat?  |                     | N/A           | 0             | 0             | N/A           | N/A           | 0             | 0             | 0             | N/A           | N/A           | N/A           | 0             | N/A           | N/A  |
| Has SMP policy provided sustainable management for emerging saline lagoon habitat?  | N/A                 | N/A           | +             | 0             | N/A           | N/A           | N/A           | +             | N/A           | N/A           | N/A           | N/A           | +             | N/A           | N/A  |
| Will there be no net loss of UK BAP habitat within the SMP timeline up to 2100?   | 0                   | _             | -             | -             | -             | +             | +             | +             | +             | +             | 0             | +             | +             | +             | 0  |
| Will SMP policy contribute to further SSSIs falling into unfavourable condition and address the causal factors of existing units that are in unfavourable declining condition (due to coastal management) wherever possible?    | 0                   | -             | +             | +             | +             | +             | +             | +             | +             | +             | 0             | +             | -             | +             | +  |
| ISSUE - Maintenance of environmental conditions to support biodiversity and the quality of life   |                     |               |               |               |               |               |               |               |               |               |               |               |               |               |  |
| ISSUE - Maintenance of balance of coastal processes on a dynamic linear coastline with settlements at estuary mouths  |                     |               |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Will SMP policy maintain an overall level of balance across the Suffolk coast with regard to coastal processes, which accepts dynamic change as a key facet of overall coastal management?                                      | +                   | -             | ++            | +             | ++            | ++            | ++            | +             | ++            | +             | -             | +             |               | 0             | +  |
| Will SMP policy increase actual or potential coastal erosion or flood risk to communities in the future?  | 0                   | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | +             | -             | +  |
| Will SMP policy commit future generations to spend more on defences to maintain the same level of protection?   | -                   | -             | ++            | +             | +             | 0             | +             | 0             | 0             | -             | -             | +             | -             | -             | -  |
| Does the policy work with or against natural processes?   | +                   | +             | ++            | +             | +             | -             | +             | +             | ++            | ++            | -             | +             | -             | -             | -  |
| ISSUE - Maintenance of water supply in the coastal zone   |                     |               |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Will SMP policy maintain structures to defend water abstraction infrastructure and to avoid any exacerbation of levels of saline intrusion into freshwater aquifers?  | +                   | +             | N/A           | 0             | 0             | -             | 0             | 0             | 0             | 0             | +             | +             | +             | -             | +  |
| ISSUE - Maintenance of the vales of the coastal landscape and Area of Outstanding Natural Beauty (AONB)   |                     |               |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Will SMP policy maintain a range of key natural, cultural and social features critical to the integrity of the Suffolk coastal landscape?   | +                   | +             | +             | +             | +             | +             | +             | +             | -             | +             | +             | 0             | +             | +             | +  |
| Will SMP policy lead to the introduction of features that are unsympathetic to the character of the landscape?  | 0                   | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0  |
| ISSUE - Protection of historic and archaeological features on a dynamic coastline   |                     |               |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Will SMP policy maintain the fabric and setting of key historic listed buildings and conservation areas?  | +                   | +             | N/A           | 0             | +             | +             | N/A           |               |               | 0             | +             | N/A           | +             | 0             | -  |
| Will SMP policy provide sustainable protection of archaeological and palaeo-environmental features (where appropriate) and ensure the provision of adequate time for the survey of archaeological sites where loss is expected? | +                   | +             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | N/A  |

| Assessment criterion  |     | SMP management area |               |               |               |               |               |               |               |               |               |               |               |               |  |
|---|-----|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
|   |     | KES<br>05.1-3       | BEN<br>06.1-3 | COV<br>07.1-2 | SWD<br>08.1-3 | BLY<br>09.1-5 | BLY<br>10.1-3 | DUN<br>11.1-4 | MIN<br>12.1-4 | MIN<br>13.1-3 | ALB<br>14.1-4 | 0RF<br>15.1-2 | HOL<br>16.1-5 | DEB<br>17.1-4 | DEB<br>18.1-2,<br>FEL<br>19.1-5,<br>20.0-1 |
| ISSUE - Protection of coastal communities and culture   |     |                     |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Protection of coastal towns and settlements   |     |                     |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Will SMP policy maintain key coastal settlements in a sustainable manner, where the impact of coastal flooding and erosion is minimised and time given for adaptation?              | +   | +                   | +             | 0             | +             | +             | N/A           | 0             | +             | 0             | +             | N/A           | -             | N/A           | N/A  |
| Will SMP policy protect the 'coastal character' of communities that have historically been undefended?  | N/A | N/A                 | N/A           | +             | N/A           | +             | N/A           | +             | +             | N/A           | N/A           | N/A           | ++            | N/A           | N/A  |
| Will SMP policy maintain the form or function of features located outside established settlements that are essential to the economy and quality of life of key coastal settlements? | N/A | N/A                 | N/A           | N/A           | N/A           | +             | N/A  |
| Protection of key coastal infrastructure  |     |                     |               |               |               |               |               |               |               |               |               |               |               |               |  |
| Will SMP policy maintain road-based transport connectivity between settlements on the Suffolk coast?  | +   | N/A                 | N/A           | N/A           | N/A           | N/A           | 0             | N/A           | -             | 0             | 0             | N/A           | N/A           | N/A           | +  |
| Will SMP policy maintain rail-based transport connectivity between the Suffolk coast and the national rail network?   | +   | N/A                 | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | 0             | 0             | N/A           | N/A           | N/A           | +  |
| Will SMP policy maintain or enhance levels of access along or to the Suffolk coast?   | +   | +                   | 0             | 0             | -             | +             | N/A           | N/A           | -             | 0             | 0             | 0             | 0             | 0             | 0  |
| Will SMP policy protect Sizewell Nuclear power station in situ?   | N/A | N/A                 | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | N/A           | +             | N/A           | N/A           | N/A           | N/A           | N/A  |

Based on the updated assessment of the final policies, consideration needs to be given to anticipated changes in the overall effects of the final SMP. The areas that have changed are summarised below.

#### European sites

Following finalisation of the ER, the change in policy at COV 7.2 has led to a reassessment of the impact on the Annex 1 priority habitat (reedbed) there from major negative to neutral.

#### **Historic environment**

Following comments received through consultation, and in ongoing discussion with English Heritage, the impact on historic listed buildings and conservation areas has been changed in several locations (DEB 18.1 to 18.2, FEL 19.1 to 19.5 and 20.0 to 20.1). As there will be an impact on the Landguard Fort scheduled monument, the assessment has been changed from neutral to minor negative.

The assessment of the impact on archaeological sites and paleoenvironmental features has also been changed from minor positive to neutral for three assessment units (SWD 8.1 to 8.3, BLY 9.1 to 9.5 and BLY 10.1 to 10.3) and from not applicable to neutral for two assessment units (ORF 15.2, HOL 16.1 and 16.2). These changes are based on more detailed discussion with the historic environment stakeholders, and in-depth consideration, as mentioned above.

# Section 7 – Environmental monitoring measures for the implementation of this project

The Suffolk SMP2 provides an integrated suite of management that seeks to maintain coastal habitats and ecological values and integrity while protecting coastal communities and the features that provide a sustainable future. In keeping such a balance, some negative environmental impacts are likely to be unavoidable. However, it is currently uncertain how the system will respond both to management and sea level rise. Monitoring is therefore required to ensure that future management is responsive to both anticipated and unforeseen changes.

The SMP action plan provides for these actions. More detailed assessments will also be carried out at both the coastal strategy and scheme level. These will include HRA and other assessments to determine and mitigate environmental impacts.

The detailed monitoring requirements arising from the SEA Environmental Report are outlined below. These will also be provided by the SMP action plan.

#### Effects on the integrity of international sites

The SMP has the potential to affect the condition of several international sites through changes in habitat and coastal management (see Appendix J – Appropriate Assessment). The manner in which habitats respond to the preferred policies and sea level rise in the early epochs needs to be monitored and assessed.

The action plan provides a specific programme of monitoring and evaluation to determine the detailed response of the system to management and sea level rise. The approach specified is as follows:

 Action – Continue shoreline monitoring programme. Expand and finetune to address data needs raised in SMP for each PDZ, to inform SMP2 policies and SMP3 and to feed into studies.

A location-specific action that has been identified is at East Lane. This is deemed necessary to monitor beach levels with respect to their impact on the Alde-Ore Estuary Ramsar/SPA and Orfordness - Shingle Street SAC.

#### **Effects on condition of SSSIs**

The SMP has the potential to affect the condition of SSSIs through changes in habitat and coastal management, with knock-on effects on the high level targets relating to SSSIs in favourable condition. A key tool in managing and monitoring change on the Suffolk coastline is the continued monitoring of SSSI units. This allows an early determination of where favourable condition may be threatened by SMP policies. It is considered that the existing monitoring programme undertaken by Natural England would be sufficient for this purpose, but any initial findings should be fed into the SMP action plan and subsequent policy at the earliest stage.

• The actions provided for monitoring in the action plan, coupled with the monitoring programmes established by Natural England and the Environment Agency, will ensure that impacts on SSSIs are considered by, and inform, future policies.

In addition, it has been recognised that monitoring of the beach management at Landguard Common is required to assess its impact on the Landguard Common SSSI.

#### Effects on UKBAP habitat

One of the main effects of SMP policies will be the change in the composition of transitional habitat, due in part to promoting natural change under a scenario of rising relative sea levels. There is a need, therefore, to ensure that monitoring of BAP habitat in the plan area highlights shifts in BAP habitat area and informs the BAP recording process. This is needed to help ensure that management addresses any requirements resulting from impacts of the SMP.

• The actions provided for monitoring in the action plan, coupled with Natural England and the Environment Agency's monitoring programmes, will ensure that impacts on UKBAP habitat are considered and inform the development of future SMP policies.

#### Effects on coastal cultural and archaeological sites

Where the implementation of SMP policy would lead to the loss of sites/features that are important to the historic environment, two options are available:

- 1. Relocate features to a more sustainable location or
- 2. Provide a site investigation to investigate and record the content and value of sites.

In general across the SMP area it is necessary to assess the archaeological potential and impacts of heritage losses. This will involve a plan to record archaeological losses due to coastal change. In addition, two specific actions have been identified:

- At Covehithe it has been recognised that it is necessary to develop plans to record the local cultural and social history.
- At Dunwich erosion is expected to be an issue in the vicinity of Greyfriars priory and the Hospital of the Holy Trinity. Therefore this threat to these heritage assets will be monitored and mitigation measures put in place as required.

A range of other actions are included in the SMP action plan. These include measures to monitor the tidal prism of the Blyth Estuary to develop an ongoing understanding of its behaviour and inform future management, to monitor the leachate plume at Gisleham waste site, and to monitor the impact of human trampling at the Denes to inform the management necessary to maintain the integrity of the dune and allow them to respond naturally.

## References

**Environment Agency (2010)** Suffolk Shoreline Management Plan (including appendices). :

**Defra (2006)** Shoreline management plan guidance. Volume 2: Procedures March 2006.

## Appendix 1: SEA Criteria Reassessment Tables

| Assessment Unit                   | SEA Criterion  | Explanation of Assessment   |  |  |  |  |  |
|-----------------------------------|--|---|--|--|--|--|--|
| COV 7.1 – 7.2                     | Will SMP policy have an adverse effect on the integrity of any<br>Annex 1 priority habitat   | The three broads adjacent to this area (Benacre Broad, Covehithe Broad and Easton Broad) are examples of saline lagoons. The effect of this policy would be to enable natural processes to co on this coast, with it being likely that the SAC lagoon at Easton Bavents will migrate up the valle at the expense of (supporting) freshwater reedbed habitat. Any change to the lagoons would the be as a result of natural change, with no adverse effect on integrity. The assessment has been changed from major negative to neutral. |  |  |  |  |  |
| SWD 8.1-3                         | Will SMP policy provide sustainable protection of<br>archaeological and palaeo-environmental features (where<br>appropriate) and ensure the provision of adequate time for the<br>survey of archaeological sites where loss is expected? | The approach provides an epoch before the realignment policy for the area to the north of Southwold, thereby providing adequate time for its study.<br>The policy also provides for a gradual/natural approach to realignment which would enable the study and investigation of archaeological features. Although it is acknowledged that study does not mitigate loss, the overall assessment has been changed from minor positive to neutral.   |  |  |  |  |  |
| BLY 9.1-5                         | Will SMP policy maintain structures to defend water<br>abstraction infrastructure and to avoid any exacerbation of<br>levels of saline intrusion into freshwater aquifers?   | The Management Area will lead to natural development, and will lead to possible threats of this supply.<br>Although this will need to be examined in more detail the assessment has been changed from neutral to minor negative.  |  |  |  |  |  |
|                                   | Will SMP policy provide sustainable protection of<br>archaeological and palaeo-environmental features (where<br>appropriate) and ensure the provision of adequate time for the<br>survey of archaeological sites where loss is expected? | The policy approach provides for a gradual/natural approach to realignment which would enable the study and investigation of archaeological features. The Management Area therefore may lead to the loss of features, but time is provided for their study and potential mitigation. Losses to the historic   |  |  |  |  |  |
| BLY 10.1-3                        | Will SMP policy provide sustainable protection of<br>archaeological and palaeo-environmental features (where<br>appropriate) and ensure the provision of adequate time for the<br>survey of archaeological sites where loss is expected? | environment can never be fully overcome by mitigation and in this instance the assessment has been changed from minor positive to neutral.  |  |  |  |  |  |
| 0RF 15.1-2                        | Will SMP policy provide sustainable protection of<br>archaeological and palaeo-environmental features (where<br>appropriate) and ensure the provision of adequate time for the<br>survey of archaeological sites where loss is expected? | SMP policy is for NAI across all areas and epochs except Sudbourne Beach (NAI in epoch one).<br>Sudbourne marshes do contain prehistoric, Roman and medieval coastal related sites, while Orford<br>Ness contains a major group of 20th century military structures. However, due to the stability in the<br>system, these are not considered to be affected during the lifetime of the plan. The assessment has<br>been changed from not applicable to neutral.  |  |  |  |  |  |
| HOL 16.1-5                        | Will SMP policy provide sustainable protection of<br>archaeological and palaeo-environmental features (where<br>appropriate) and ensure the provision of adequate time for the<br>survey of archaeological sites where loss is expected? | SMP policy advocates NAI and MR, which has the potential to lead to the loss of heritage assets (including Roman salterns, Roman settlement and Bronze Age barrow cemetery) at Gedgrave, Boyton and Hollesley Marshes. However, on balance and due to the timing of policy and location of assets, the assessment has been changed from not applicable to neutral.  |  |  |  |  |  |
| DEB 18.1-2,<br>FEL 19.1-5, 20.0-1 | Will SMP policy maintain the fabric and setting of key historic listed buildings and conservation areas?   | Landguard Common lies entirely within the designated area of Landguard Fort scheduled monument, which will be subject to MR. The assessment has been changed from neutral to minor negative.  |  |  |  |  |  |