



# **Shoreline Management Plan 2: River Tyne to Flamborough Head**

## **Appropriate Assessment Report**

Scarborough Borough Council

December 2006

Draft Report

9S1243

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## 1 INTRODUCTION

### 1.1 Background

1.1.1 The need for an 'Appropriate Assessment' arises under the requirements of the EC Habitats Directive (92/43/EEC) and its implementation in the UK under the Conservation (Natural Habitats &c.) Regulations 1994. Under Regulation 48(1). An Appropriate Assessment is required for a plan or project, which either alone or in combination with other plans or projects, is likely to have a significant effect on an International site and is not directly connected with the management of the site. A International site is either a Special Area of Conservation (SAC), a potential Special Protection Area (pSPA), or a Special Protection Area (SPA) where it has been agreed that it is a Site of Community Importance (SCI). Additionally, in the application of the Habitats Regulations, sites designated under the Ramsar convention need to be considered. As such, Ramsar sites are included within the international sites to which Appropriate Assessment provisions (Regulation 48) apply.

1.1.2 Appropriate Assessment is a decision by the 'Competent Authority' (in this case the local authorities within the SMP plan area), which needs to demonstrate that a plan or project would not have an adverse effect on the integrity of any International sites. Section 6 of Planning Policy Statement 9 Biodiversity and Geological Conservation (PPS9) (ODPM, 2006) provides guidance on this matter. An adverse effect on integrity is likely to be one that prevents the site from meeting its conservation objectives.

### 1.2 Appropriate Assessment in the land use plan context

1.2.1 On the 20th October 2005, the EU 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 Appropriate Assessment to determine the impacts of the plan on sites designated under the Habitats and Birds Directives.

1.2.2 At present, the Office of the Department for Communities and Local Government (DCLG) has produced draft guidance on how to determine the need for an Appropriate Assessment for a given plan and the provision of an assessment if one is considered to be required. In addition to this, the UK Habitats Regulations are being amended. Natural England have provided an internal draft document relating to the provision of Appropriate Assessments for Regional Spatial Strategies and Sub-Regional Strategies. These two documents: "Planning for the Protection of International Sites: Appropriate Assessment" (DCLG, 2006) and "The Assessment of Regional Spatial Strategies under the Provisions of the Habitats Regulations – Draft Guidance" (English Nature, 2006), currently provide the most cohesive source of guidance relating to the provision of Appropriate Assessments for land use plans. These documents relate explicitly to land use plans, however, given that SMP's have the potential to influence the development of land, this guidance has been applied to SMP policy. In this respect, there are clear parallels between Regional Spatial Strategies and SMP's, and the relevant elements of guidance relating to RSSs have therefore been adapted here for SMP use. Accordingly, these documents have been used as a guide in establishing the scope of the Appropriate Assessment for the River Tyne to Flamborough Head SMP2.

- 1.2.3 The Appropriate Assessment is 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 effects on the integrity of International sites.

### **1.3 Requirement for an Appropriate Assessment for the SMP2**

- 1.3.1 The primary task in applying Regulation 48 to the SMP relates to the need to establish whether an Appropriate Assessment is required. As stated above, this relates to the task of establishing whether the plan would be likely to have a significant effect on an international site. On the basis of the policies within the SMP, and the presence of a range of International sites within the plan area, it could not be concluded that there would not be likely significant effect of SMP policy on such sites. SMP policy, has been provided at a Management Area level and the policies nested within this, have a clear potential to directly effect International sites. In this context, it was a simple task to determine that the SMP had the potential to have a likely significant effect, and on the basis of a preliminary initial assessment, it became obvious that an Appropriate Assessment for the plan was therefore required, since it could not be concluded that the plan would not have a likely significant effect on its own. The need for an Appropriate Assessment was therefore considered necessary 'alone' and did not require recourse to determine the effects of the plan in-combination with other plans and projects, at that stage. It should be stressed however, that in developing the policies of the SMP, full regard was given to the need to ensure that the integrity of the International sites in the plan area was considered in policy development. Although an Appropriate Assessment was not provided at the policy formulation stage, the assessment of impacts on International sites was a primary consideration in the development of policy and the definition of Management Area boundaries.
- 1.3.2 The current exercise, to provide an Appropriate Assessment for the SMP, provides the opportunity to determine whether the impacts of the SMP would have an effect on the integrity of International sites, by means of a specific assessment exercise. This assessment represents the first attempt at providing an Appropriate Assessment for an SMP nationally, and as such, the document is seeking to pioneer a robust approach undertaken to an appropriate level.

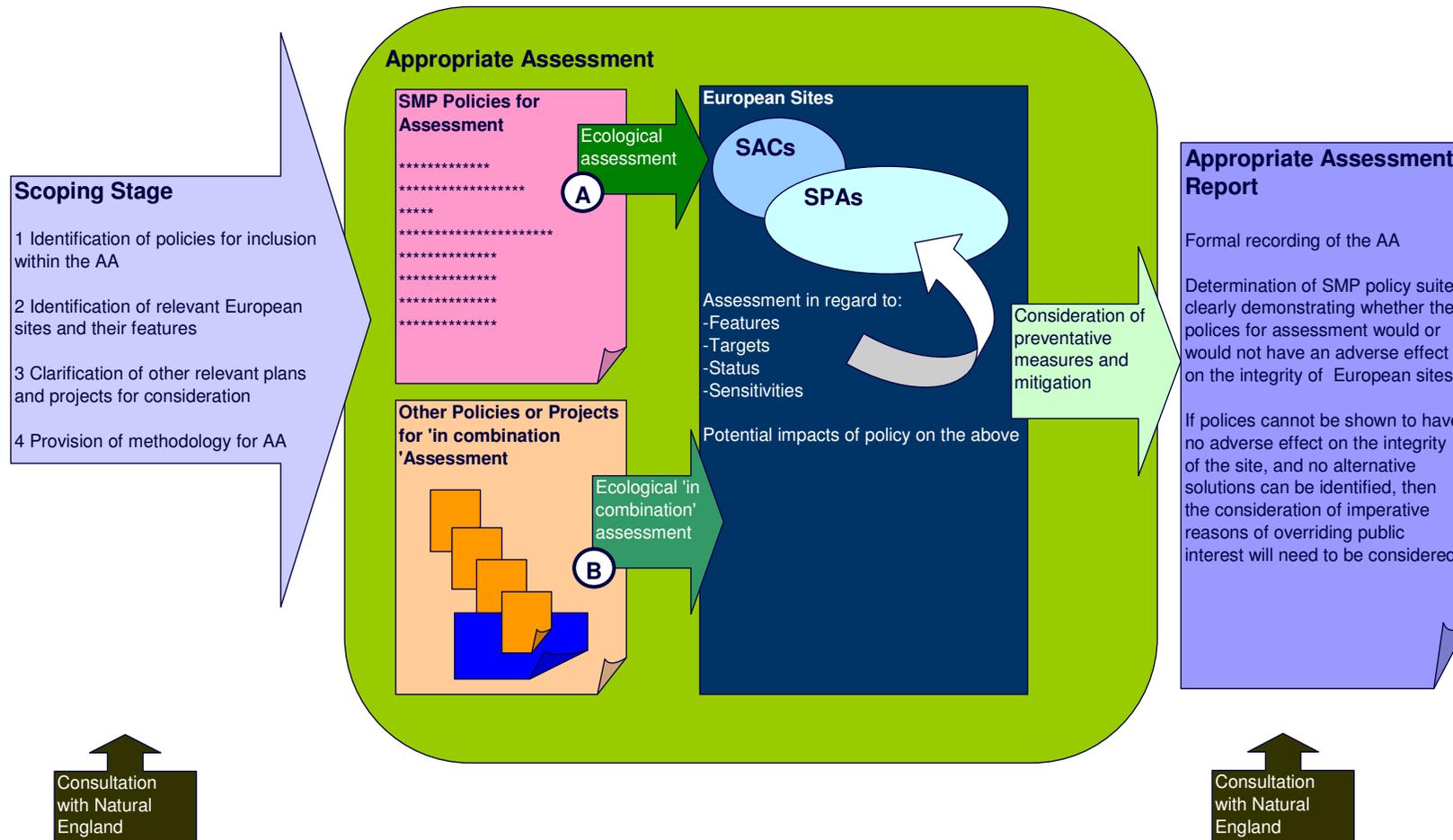
## 2 METHODOLOGY

- 2.0.1 As has been stated previously, the methodology developed for this exercise has been developed in accordance with the guidance of DCLG and Natural England. Additionally, Appropriate Assessment methodologies devised for large scale developments have been evaluated to ensure that the approach provided is based on actual practical implementation of the Habitats Regulations. Equally, the methodology has been devised to ensure that the approach taken meets the requirements of the Habitats Regulations and is specific to the particulars of an SMP, with the intent of offering a level of assessment which is appropriate for policies of this type.
- 2.0.2 Given that the application of Appropriate Assessments to land use plans in the UK is in its infancy, and that this assessment is the first to be provided for an SMP, a carefully considered approach to developing the methodology has been taken, to ensure that the process is as simple and transparent as possible. The need to ensure that the assessment is in fact appropriate to the evaluation of policy, has also been recognised. It should be clearly understood that the actual 'development' required to implement coastal defence options, which may occur as policy is implemented, would be likely to require an Appropriate Assessment, and it is therefore not the intent of this assessment to provide a level of detail, which would duplicate a site specific, proposal based Appropriate Assessment.
- 2.0.3 The process has been broken down into a series of clearly defined steps that will provide a transparent and accountable assessment of the SMP policies. These steps are outlined below and where necessary references are provided to the specific guidance or the contents of Circular 06/2005 Biodiversity and Geological Conservation. A summary of the suggested methodology is illustrated in Figure One, which shows the manner in which the overall assessment will progress and how key tasks relate to one another.

### 2.1 Assessment of the SMP Policies

- 2.1.1 The assessment of the SMP policies has been supported by a tabulated account based on an adaptation of the Favourable Condition tables for the SSSIs which underpin the International sites. Tables have been provided to show the key features of the site, the attributes relevant to such features, the identified management targets for the site and known sensitivities or management issues. Each policy within the assessment has then been evaluated and tabulated against each feature in regard to the potential impacts of the policy (both positive and negative), preventative measures that could be taken, mitigation and a commentary on the impacts of the policy on the site features and targets. On the basis of this exercise, an assessment has then been provided in regard to the overall effects of each policy on the integrity of the International site. This exercise has been recorded at the Management Area level, so that the policies for each Area have been assessed in regards to the possible impacts on the International features within that management Area. Management Area's have been devised to provide discreet, spatial areas for policy application, however, if a policy may effect a neighbouring Management Area, this has been included in the assessment. The favourable condition tables have been refined to reflect where SSSI based designation underpins International features. For example, littoral rock (typically magnesium limestone) at the SSSI level has been provided as a basis for the consideration vegetated sea cliffs at a International level. .

**Figure One - Appropriate Assessment Methodology**



Additionally, conservation targets have been derived from targets in Natural England's favourable condition tables, or where no such targets are specified, the conservation objectives.

2.1.3 Tables have been provided for each policy under consideration with supporting analysis and commentary on how the assessment accords with guidance and is compliant with the regulations.

2.1.4 Finally, for each policy and Management Area, a commentary and determination has been provided which clearly expresses the likely impacts of the policy on each International site and illustrates the preventative measures which could be taken to avoid any adverse effects identified. Paragraph 1.7.1 of the emerging Natural England Guidance document (Natural England, 2006) acknowledges the need to provide a level of assessment that is 'appropriate' and refers to the ECJ ruling where the Advocate General's opinion was that the assessment for policy should be as rigorous assessment as can reasonably be undertaken.

## 2.2 Provision of an 'in combination' assessment

2.2.1 Within the Appropriate Assessment of the SMP, the in-combination assessment has been provided at a level considered appropriate to policy level assessment. Appropriate in this context, must have regard to the fact that effects of policy are more difficult to establish, due to the lack of detail available at the proposal stage. Where potential in combination effects have been identified therefore, it is considered that assessments at the policy level, can only proceed, where the effect of the SMP is the same as the effect of the other plan or project identified. To consider more abstract in combination effects (for example, loss of habitat for seabirds in combination with direct reduction in populations of seabirds), it is considered that the Appropriate Assessment at the scheme level is wholly more appropriate, since the detail available will enable meaningful analysis of the combination of such effects. This detail is not available at the policy stage without a degree of specification to the policy, which would create a de facto proposal for a scheme. This is not considered appropriate within the SMP.

Therefore in the implementation of SMP policy it is considered that the following steps should be applied. Such steps enable NECAG SMP policy, to progress on the basis that at this level of assessment, with the following caveats, no adverse effect on the integrity of international sites can be concluded:

- At each level of consideration, the Habitats Regulations should be applied to the fullest extent possible.
- Where judgements under the Habitats Regulations are deferred to the next level of consideration within the SMP process then a clear justification for doing so must be made and recorded in the SMP document.
- Where judgements are deferred to the next level of consideration, the impacts that have been identified but where unable to be quantified must be clearly recorded and passed on for consideration at that level.

2.2.2 The 'in combination' assessment has been summarised in regard to the overall conclusions which can be drawn to provide a clear summary for each SMP Management Area so that the impacts of the policies within the Area alone, and 'in combination' with other plans and projects is clearly expressed.

### **2.3 Consideration of preventative measures and mitigation**

2.3.1 Whilst the SMP and not individual policies are the medium under assessment, as stated consideration has been given to the effects of policy insofar that this relates to management areas and/or the extent of international sites. Where it cannot be concluded that a policy will not have an adverse effect on the integrity of a International site, an account has been provided of the preventative measures which would ensure that factors causing potential adverse effects are fully addressed in policy implementation. Preventative measures are listed, where relevant, in the assessment tables and in Section 7 of this report.

### **2.4 Determination of alternative solutions and imperative reasons of overriding public interest**

2.4.1 If a policy is considered to have an adverse effect on the integrity of the international sites, and there are no alternatives or preventative measures that are available to offset such effects, there may be the need to implement the policy in the interests of imperative reasons of overriding public interest (IROPI) whilst providing compensatory measures. No such policies were identified in the case of the SMP. The policies which have the potential to have an adverse effect on the integrity of international sites have all been providing with preventative measures to ensure that to actual adverse effects occur (this is detailed in the following sections of this report).

### **2.5 Provision of findings to inform the Appropriate Assessment**

2.5.1 A full account of the analysis provided, the consultation with Natural England, their response and any actions subsequent to this have been provided in the following sections of this report. This report will then form the basis of the Appropriate Assessment which is the requirement of competent authorities for the provision of this work.

### **3 APPROPRIATE ASSESSMENT SCOPING REPORT AND CONSULTATION**

#### **3.1 Provision of the Scoping Report**

- 3.1.1 A scoping report to provide the focus for this attempt to develop an Appropriate Assessment for an SMP, was produced in October 2006 (Royal Haskoning, 2006). This document provided an evaluation of the degree to which SMP policy should be included within the assessment, and outlined the methodology suggested to provide this. The report provided a consideration of the determination of likely significant effect and identified the management areas which required consideration within the Appropriate Assessment (i.e. those where it could not be concluded that there would not be a likely significant effect in international sites). This report was subsequently provided to Natural England, the Royal Society for the Protection of Birds (RSPB), Defra and the Environment Agency for consultation. The comments of these organisations and agencies have been attended to and are reflected in this Appropriate Assessment report.

## 4 SCOPE OF ASSESSMENT FOR SMP2 POLICIES

### 4.1 The Existing Policy Suite

4.1.1 In the context of this study, the policy suite for evaluation is defined as the policies within SMP2. Appendix 1 contains a list of all policies classified by their Management Area (Table A.1) which were evaluated at the Scoping Stage in regard to their likely significance on International Sites.. Where policies fall within Management Areas that do not contain a International site, and are not likely to have a significant effect on a International site, these policies were screened out at the scoping stage since they can be considered to have no likely significant effect on the international sites in the plan area either alone or in combination with other plans or projects. The policies that remain therefore (Table 4.1 below) are those policies which have been taken forward into the assessment.

### 4.2 The Evaluation of Policies Likely to Have a Significant Effect on the Integrity of International Sites in the plan area

4.2.1 As described above, from the suite of policies which are provided in the SMP, only those policies which are likely to have a significant effect on the integrity of the International sites need to be considered within the Appropriate Assessment. The identification of these policies is therefore essential to provide the scope for more detailed assessment. Policies which will have 'no effect' on the features of International sites will have been identified and excluded from the assessment.

4.2.2 The policy options provided within the SMP relate to one of six management options:

1. Hold the Line;
2. Advance the Line;
3. Management realignment;
4. No Active Intervention;
5. Retreat the line; and
6. Hold the line on a retreated realignment.

4.2.3 In the context of the Appropriate Assessment, it is considered that all options (1-6) should be considered to determine whether they may have a likely significant effect on International sites. Although options 4 and 5 may not constitute 'development' in the context of the guidance which is emerging, it is considered that in the application of this guidance to the provisions of an SMP, such options should be considered (this accords with Natural England's position on this matter). Options relating to no actual development remain pertinent to the assessment since they have the potential to have significant effects on site features (for example the loss of habitat due to coastal squeeze or inundation). Accordingly, all options have been considered for inclusion within the Appropriate Assessment.

4.2.4 In the context of the policies within the SMP, an analysis was provided within the Scoping Report, which identified those management areas within the SMP, where it could not be concluded that the policy would not have a likely significant effect. These management units (and their policy) are therefore included within the Appropriate Assessment here (see Table 4.1). It should be noted that in devising the Management Areas, the intent was to provide discreet spatial units, where impacts of policy within that Area would be confined to the Area, or those adjacent to it. In this regard, some Management Areas which are not near to a International site, have been assessed as having no likely significant effect on any International sites.

4.2.5 The Management Areas, where it cannot be concluded that there will not be a likely significant effect on a International site, have therefore been identified for inclusion within the Appropriate Assessment. The Management Areas identified for inclusion within the Appropriate Assessment are therefore provided in Table 4.1 below:

Table 4.1 – Management Areas identified for inclusion within the Appropriate Assessment.

Management Area		Policy Area	
MA01	River Tyne to South Pier	1.1	South Groyne
		1.2	Littlehaven
		1.3	South Pier
MA02	Herd Sand	2.1	Herd Sands North
		2.2	Herd Sands South
		2.3	Trow Point (north)
MA03	Trow	3.1	Trow Point (south)
		3.2	Trow Quarry
MA04	Frenchmans Bay to Lizard Point	4.1	North of Lizard Pt.
		4.2	Lizard Pt
MA05	Lizard Point to Souter Point	5.1	Harbour Quarry
		5.2	Harbour Quarry to Souter Point
MA06	Souter Point to Sunderland Harbour	6.1	Whitburn Cliffs
		6.2	The Bents
		6.3	South Bent/ Seaburn
		6.4	Parson's Rock
		6.5	Marine Walk
MA08	Sunderland Harbour to Pincushion Rocks	8.1	Harbour East Bay
		8.2	Harbour South Face
		8.3	Hendon Seawall
		8.4	Hendon to Pincushion
MA09	Pincushion to Chourdon Point	9.1	Pincushion to Seaham
		9.2	Seaham North Prom.
		9.3	Red Acre Cliffs
		9.4	Seaham Harbour
		9.5	Seaham South
		9.6	Dawdon Beach
		9.7	Blast Beach
MA10	Chourdon Point to Blackhall Rocks	10.1	Chourdon Point to Blackhall Rocks
MA11	Blackhall Rocks to Heugh	11.1	Crimdon Valley

Management Area		Policy Area	
	Breakwater	11.2	North Sands
		11.3	Headland
MA12	Hartlepool Bay	12.1	Hartlepool
		12.2	Seaton Carew north
MA13	Tees Bay	13.1	Seaton Carew
		13.2	Seaton Sands
		13.3	North Gare
		13.4	North Gare Sands
		13.5	Bran Sands
		13.6	South Gare
		13.7	Coatham Sands
MA14	Coatham and Redcar	14.1	Coatham East
		14.2	Redcar
		14.3	Redcar East
MA25	Saltwick Nab to Hundale Point (Robin Hoods Bay)	25.1	Saltwick to Hundale
		25.2	Village of Robin Hood's Bay
MA33	Muston Sands to Flamborough Head	33.1	Speeton
		33.2	Flamborough Head
		33.3	North Landing
		33.4	Flamborough

4.2.6 The consideration of these management units will therefore form the basis of this assessment.

## 5 SITES AND FEATURES FOR CONSIDERATION WITHIN THE APPROPRIATE ASSESSMENT

### 5.1 Sites within or adjacent to SMP2 Management Units

5.1.1 The SMP includes all or part of nine International sites (including those designated under the Ramsar Convention). These are the areas which need to be considered in regard to the impacts of the SMP within the scope of this assessment.

An account of the sites is given in Table 5.1.

Sites Designated under the **Birds Directive**:

- Northumbria Coast SPA;
- Teesmouth and Cleveland Coast SPA; and
- Flamborough Head and Bempton Cliffs SPA.

Sites designated under the **Habitats Directive**:

- Durham Coast SAC;
- Castle Eden Dene SAC;
- Beast Cliff-Whitby (Robin Hood's Bay) SAC; and
- Flamborough Head SAC.

Wetlands of international importance designated under the **Ramsar Convention**

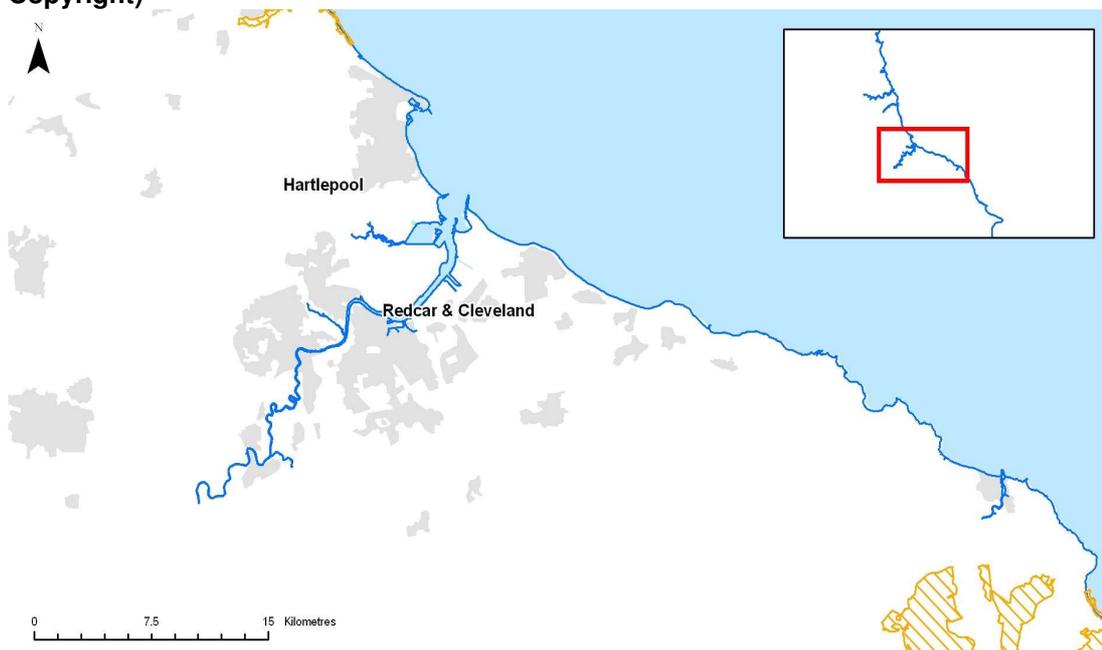
- Northumbria Coast Ramsar site; and
- Teesmouth and Cleveland Coast Ramsar site.

The location of these sites is presented in Figures 5.1a-c, 5.2a-c and 5.3a-c.

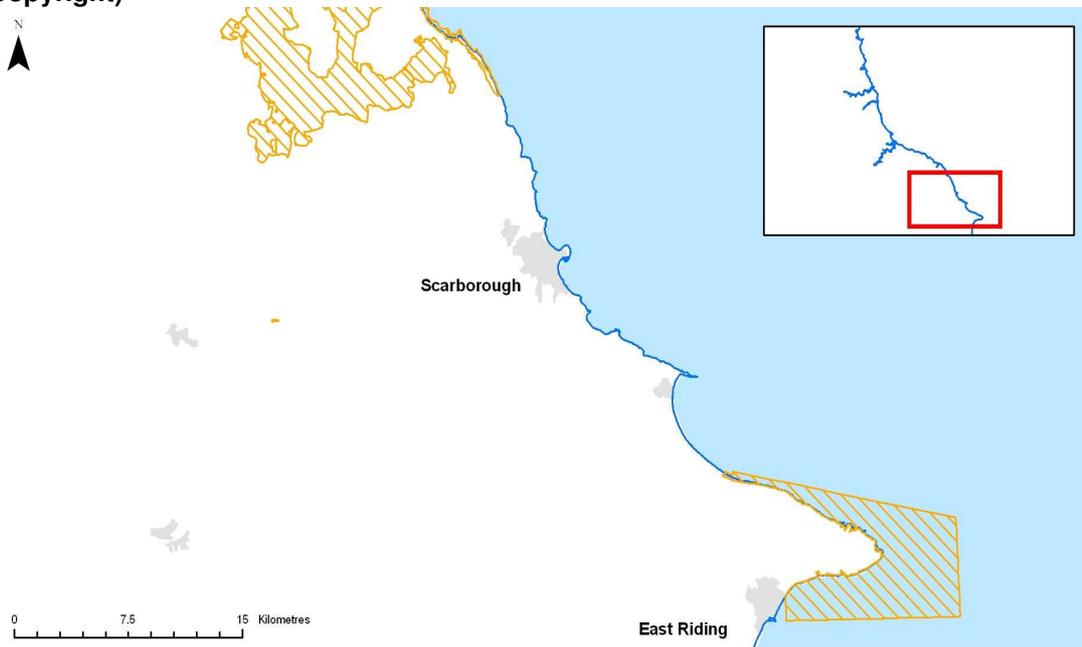
**Figure 5.1a. Overview of Special Areas of Conservation in the SMP area (© Crown Copyright)**



**Figure 5.1b. Overview of Special Areas of Conservation in the SMP area (© Crown Copyright)**



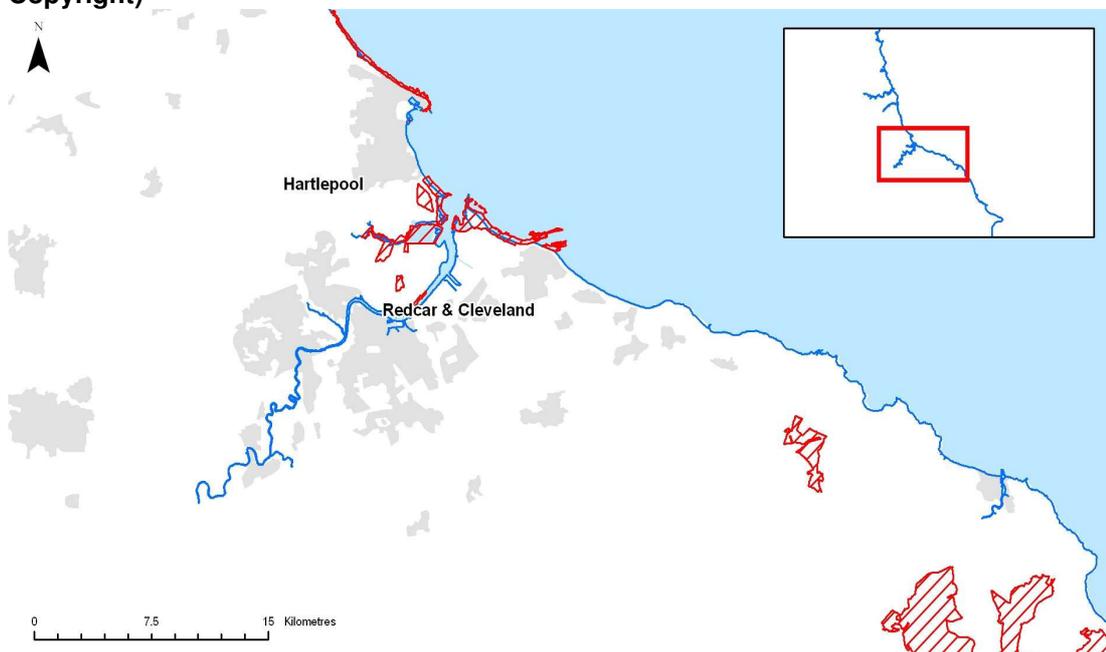
**Figure 5.1c. Overview of Special Areas of Conservation in the SMP area (© Crown Copyright)**



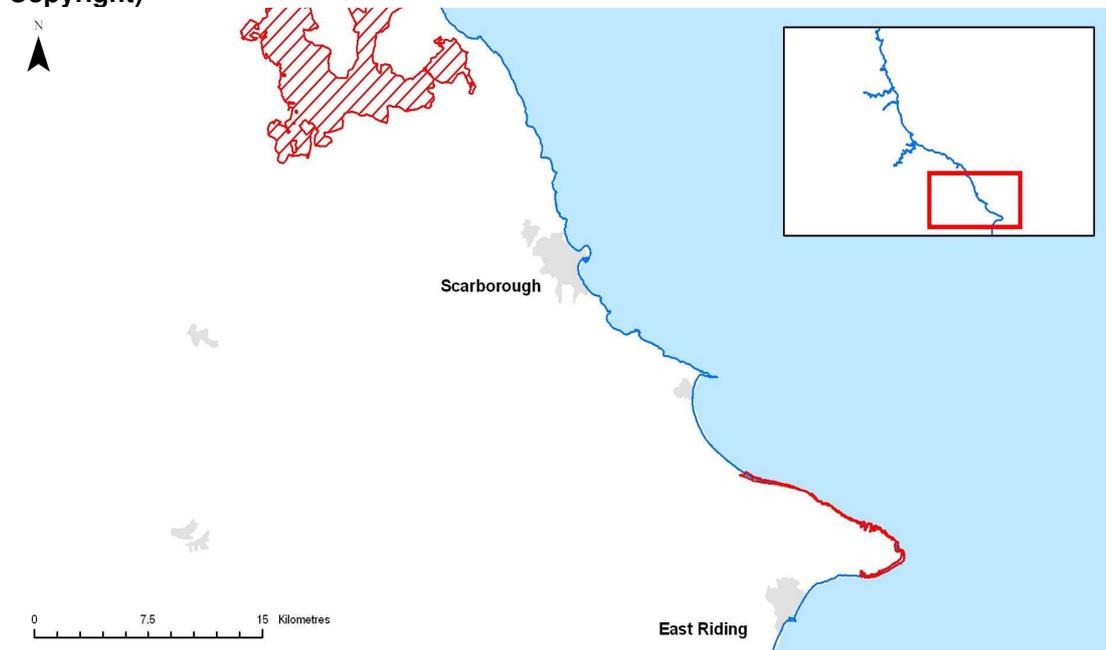
**Figure 5.2a. Overview of Special Protection Areas in the SMP area (© Crown Copyright)**



**Figure 5.2b. Overview of Special Protection Areas in the SMP area (© Crown Copyright)**



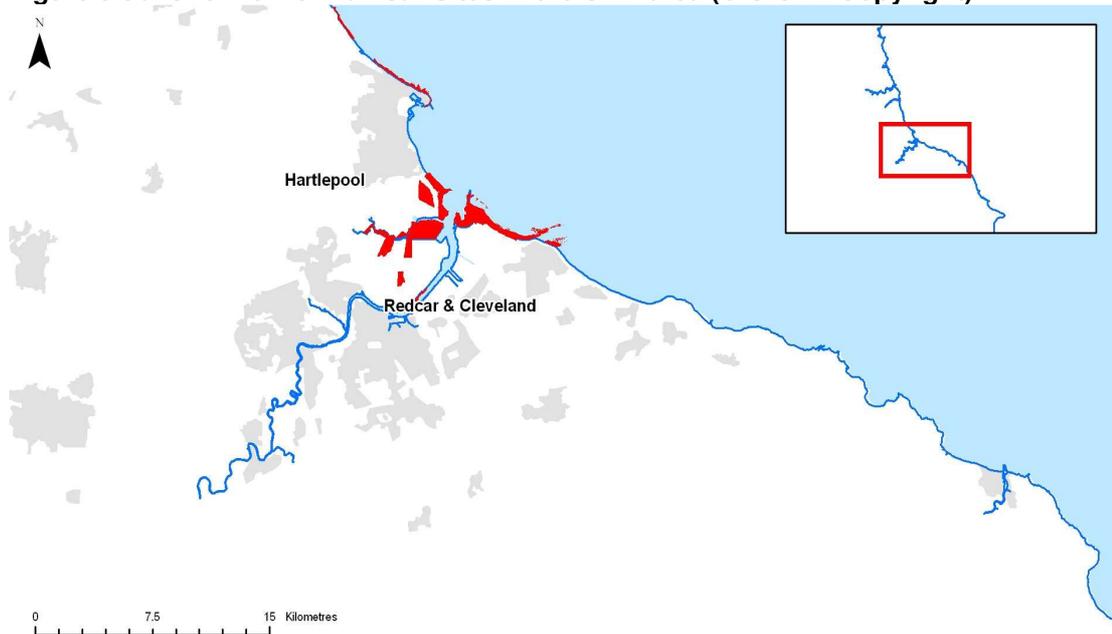
**Figure 5.2c. Overview of Special Protection Areas in the SMP area (© Crown Copyright)**



**Figure 5.3a. Overview of Ramsar Sites in the SMP area (© Crown Copyright)**



**Figure 5.3b. Overview of Ramsar Sites in the SMP area (© Crown Copyright)**



**Figure 5.3c. Overview of Ramsar Sites in the SMP area (© Crown Copyright)**



**Table 5.1. European sites within or adjacent to SMP2 management units**

Special Protection Areas	Site Features
Northumbria Coast	<p>The Northumbria Coast SPA includes much of the coastline between the Tweed and Tees Estuaries in north-east England. The site consists of mainly discrete sections of rocky shore with associated boulder and cobble beaches. The SPA also includes parts of three artificial pier structures and a small section of sandy beach. In summer, the site supports important numbers of breeding little tern <i>Sterna albifrons</i>, whilst in winter the mixture of rocky and sandy shore supports large number of turnstone <i>Arenaria interpres</i> and purple sandpiper <i>Calidris maritima</i>.</p> <p><b>Article 4.1 qualification (79/409/EEC)</b></p> <ul style="list-style-type: none"> <li>○ Little Tern, <i>Sterna albifrons</i>, Eastern Atlantic – breeding (1.7% of the GB breeding population)</li> </ul> <p><b>Article 4.2 qualification (79/409/EEC)</b></p> <ul style="list-style-type: none"> <li>○ Ruddy turnstone, <i>Arenaria interpres</i>, Western Palearctic – wintering (2.6% of the East Atlantic flyway population)</li> <li>○ Purple sandpiper, <i>Calidris maritime</i>, Eastern Atlantic – wintering (1.6% of the East Atlantic flyway population)</li> </ul>
Teesmouth and Cleveland Coast	<p>Teesmouth and Cleveland Coast SPA is located on the coast of north-east England. It includes a range of coastal habitats – sand- and mud-flats, rocky shore, saltmarsh, freshwater marsh and sand dunes – on and around an estuary which has been considerably modified by human activities. Together these habitats provide feeding and roosting opportunities for important numbers of waterbirds in winter and during passage periods. In summer little tern <i>Sterna albifrons</i> breed on beaches within the site, while sandwich tern <i>Sterna sandvicensis</i> are abundant on passage.</p> <p><b>Article 4.1 qualification (79/409/EEC)</b></p>

	<ul style="list-style-type: none"> <li>○ Little Tern, <i>Sterna albifrons</i>, Eastern Atlantic – breeding (1.7% of the GB breeding population)</li> </ul> <p><b>Article 4.2 qualification (79/409/EEC)</b></p> <ul style="list-style-type: none"> <li>○ Red knot, <i>Calidris canutus</i>, (1.6% of north-eastern Canada/Greenland/Iceland/Northwestern Europe, wintering population)</li> <li>○ Common redshank, <i>Tringa totanus tetanus</i> (1.1% of east Atlantic flyway population)</li> </ul> <p><b>Article 4.2 qualification (79/409/EEC): An internationally important assemblage of birds.</b></p> <ul style="list-style-type: none"> <li>○ 21312 waterfowl (5 year peak mean 01/03/2000)</li> </ul>
Flamborough Head and Bempton Cliffs	<p>The cliffs project into the North Sea, rising to 135m at Bempton Cliffs, and exposing a wide section of chalk strata. The cliff-top vegetation comprises maritime grassland vegetation growing alongside species more typical of chalk grassland. The site supports large numbers of breeding seabirds including kittiwake <i>Rissa tridactyla</i> and auks, as well as the only mainland-breeding colony of gannet <i>Morus bassana</i> in the UK. The seabirds feed and raft in the waters around the cliffs, outside the SPA, as well as feeding more distantly in the North Sea. The intertidal chalk platforms are also used as roosting sites, particularly at low water and notably by juvenile Kittiwakes.</p> <p><b>Article 4.2 qualification (79/409/EEC)</b></p> <ul style="list-style-type: none"> <li>○ Kittiwake, <i>Rissa tridactyla</i> (2.6% of eastern Atlantic breeding population)</li> <li>○ Nationally important populations of guillemot <i>Uria aalge</i>, razorbill <i>Alca torda</i> and puffin <i>Fratercula arctica</i></li> </ul>
<b>Special Areas of Conservation</b>	<b>Site Features</b>
Durham Coast	<p><b>Annex I Habitats (as a primary reason for selection):</b> <i>Vegetated Sea Cliffs of the Atlantic and Baltic Coasts.</i></p> <p>The Durham Coast is the only example of vegetated sea cliffs on magnesian limestone exposures in the UK. These cliffs extend along the North Sea coast for over 20 km from South Shields southwards to Blackhall Rocks. Their vegetation is unique in the British Isles and consists of a complex mosaic of paramaritime, mesotrophic and calcicolous grasslands, tall-herb fen, seepage flushes and wind-pruned scrub. Within these habitats rare species of contrasting phytogeographic distributions often grow together forming unusual and species-rich communities of high scientific interest. The communities present on the sea cliffs are largely maintained by natural processes including exposure to sea spray, erosion and slippage of the soft magnesian limestone bedrock and overlying glacial drifts, as well as localised flushing by calcareous water.</p>
Castle Eden Dene	<p><b>Annex I Habitats (as a primary reason for selection):</b> <i>Taxus baccata woods of the British Isles.</i></p> <p>Castle Eden Dene in north-east England represents the most extensive northerly native occurrence of yew <i>Taxus baccata</i> woods in the UK. Extensive yew groves are found in association with ash-elm <i>Fraxinus-Ulmus</i> woodland and it is the only site selected for yew woodland on magnesian limestone in north-east England.</p>
Beast Cliff-Whitby (Robin Hood's Bay)	<p><b>Annex I Habitats (as a primary reason for selection):</b> <i>Vegetated Sea Cliffs of the Atlantic and Baltic Coasts.</i></p> <p>Beast Cliff – Whitby is an east coast complex of hard and soft cliffs. The combination of geology, topography and plant communities found on the site are unique and it is one of the best examples of vegetated sea cliffs on the north-east coast of England. The</p>

	<p>underlying geology varies from base-rich to base-poor, and this variation is reflected in a characteristic and diverse flora across the site. Vertical hard cliffs support maritime crevice and ledge vegetation, and the more gently sloping parts of Beast Cliff itself are covered by scrub and woodland. Sandstone boulders support a luxuriant growth of mosses and ferns and pools on the cliff shelf support wetland plants and scrub. Due to the frequent land slippage occurring on the site, the woodland is constantly changing and being rejuvenated with mainly young trees forming secondary woodland. North of Beast Cliff to Ravenscar the vegetation is more open and reflects alternating strata of rich and poor base-status. Areas of calcareous clays support typical calcareous grassland and wet flush plant communities, whereas heathland species occur on more acidic sandstone outcrops. From Ravenscar north to Robin Hood's Bay the cliffs are composed either partly or entirely of soft boulder clay. This clay is continually being eroded by wave action and slippage, and supports pioneer plant communities typical of this changing habitat.</p>
Flamborough Head	<p><b>Annex I Habitats (as a primary reason for selection):</b> <i>Reefs.</i>          Flamborough Head has been selected for the presence of species associated with the chalk and for the site's location at the southern limit of distribution of several northern species. It lies close to the biogeographic boundary between two North Sea waterbodies and encompasses a large area of hard and soft chalk on the east coast of England. The site covers around 14% of UK and 9% of European coastal chalk exposure, represents the most northern outcrop of chalk in the UK, and includes bedrock and boulder reefs which extend further into deeper water than at other subtidal chalk sites in the UK, giving one of the most extensive areas of sublittoral chalk in Europe. The reefs and cliffs on the north side of the headland are very hard, resulting in, for example, the presence of many overhangs and vertical faces, a feature uncommon in sublittoral chalk. The clarity of the relatively unpolluted sea water and the hard nature of the chalk have enabled kelp <i>Laminaria hyperborea</i> forests to become established in the shallow sublittoral. The reefs to the north support a different range of species from those on the slightly softer and more sheltered south side of the headland. The site supports an unusual range of marine species and includes rich animal communities and some species that are at the southern limit of their North Sea distribution, e.g. the northern alga <i>Ptilota plumosa</i>. For these reasons, the sublittoral and littoral reef habitats at Flamborough are considered to be the most diverse in the UK.</p> <p><b>Annex I Habitats (as a primary reason for selection):</b> <i>Vegetated Sea Cliffs of the Atlantic and Baltic Coasts.</i>          Flamborough is an east coast representative of hard chalk cliffs, which occur more frequently on the south coast of England. The vegetation of east coast cliff sites is typically less influenced by salt deposition and there are few such areas with predominantly limestone vegetation. Flamborough Head is an exception and is therefore important for the conservation of calcareous cliff vegetation. Maritime vegetation is local and occurs where topography increases salt spray deposition. Elsewhere the chalk substrate supports calcareous grassland communities. Towards the eastern end of the site the chalk is masked by drift deposits, which support mesotrophic and acidic grassland communities.</p> <p><b>Annex I Habitats (as a primary reason for selection):</b> <i>Submerged or partially submerged sea caves.</i>          There are larger numbers and a wider range of cave habitats at Flamborough than at any other chalk site in Britain. This site, on the east coast of England, represents caves of the North Sea coast cut into soft rock exposures and is important for its specialised cave algal communities, which contain abundant <i>Hildenbrandia rubra</i>, <i>Pseudendoconium submarinum</i>, <i>Sphacelaria nana</i> and <i>Waerniella lucifuga</i>. There are more than 200 caves</p>

	<p>within the site, particularly around the headland and on the north-facing cliffs. Some of these caves are partially submerged at all stages of the tide, others dry out at low tide, and some lie above the high water mark but are heavily influenced by wave splash and salt spray from the sea. The largest caves are known to extend for more than 50m from their entrance on the coast.</p>
Ramsar sites	Site Features
Northumbria Coast	<p>The Northumbria Coast Ramsar site comprises several discrete sections of rocky foreshore between Spittal, in the north of Northumberland, and an area just south of Blackhall Rocks in County Durham. These stretches of coast regularly support nationally important numbers of purple sandpiper and high concentrations of turnstone. The Ramsar site also includes an area of sandy beach at Low Newton, which supports an nationally important breeding colony of little tern, and parts of three artificial pier structures which form important roost sites for purple sandpiper.</p> <p><b>Ramsar criterion 6</b> – species/populations occurring at levels of international importance (as identified at designation):</p> <p><i>Species regularly supported during the breeding season:</i></p> <ul style="list-style-type: none"> <li>○ Little tern , <i>Sterna albifrons albifrons</i>, W Europe (2.2% of the GB population)</li> </ul> <p><i>Species with peak counts in winter:</i></p> <ul style="list-style-type: none"> <li>○ Purple sandpiper , <i>Calidris maritima maritima</i>, E Atlantic (1.6% of the GB population)</li> <li>○ Ruddy turnstone, <i>Arenaria interpres interpres</i>, NE Canada, Greenland/W Europe &amp; NW Africa (1% of the population)</li> </ul>
Teesmouth and Cleveland Coast	<p>Medium-large site encompassing a range of habitats (sand and mudflats, rocky shore, saltmarsh, freshwater marsh and sand dunes) on and around an estuary which has been much-modified by human activities. Together these habitats support internationally important numbers of waterbirds.</p> <p><b>Ramsar criterion 5</b> - Assemblages of international importance:</p> <p><i>Species with peak counts in winter:</i></p> <p>9528 waterfowl (5 year peak mean 1998/99-2002/2003)</p> <p><b>Ramsar criterion 6</b> – species/populations occurring at levels of international importance (as identified at designation):</p> <p><i>Species with peak counts in spring/autumn:</i></p> <ul style="list-style-type: none"> <li>○ Common redshank, <i>Tringa totanus tetanus</i> (0.7% of GB population)</li> </ul> <p><i>Species with peak counts in winter:</i></p> <ul style="list-style-type: none"> <li>○ Red knot, <i>Calidris canutus islandica</i>, W &amp; Southern Africa (0.9% of GB population)</li> </ul>

## 5.2 Site Conservation Objectives

5.2.1 For each of the nine European sites, Natural England has provided a series of conservation objectives which relate to the desired objectives relating to the features for which the site was designated. In regard to the sites in question, the conservation objectives are listed in Table 5.2.

5.2.2 The SMP must therefore be considered in the context of their likely impacts on the features and objectives listed in these tables.

Table 5.2. Conservation objectives for International sites within SMP2 area

Special Protection Areas	Conservation Objectives	Relevant Conservation Targets
Northumbria Coast	<p><b>Natural England conservation objective for the internationally important populations of regularly occurring Annex 1 birds species.</b></p> <p>Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring Annex 1 bird species (little tern <i>Sterna albifrons</i>), under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> <li>○ Sandy beaches at Low Newton</li> <li>○ Shallow inshore waters at Low Newton</li> </ul> <p><b>Natural England conservation objective for the internationally important populations of regularly occurring migratory birds species.</b></p> <p>Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring migratory bird species purple sandpiper <i>Calidris maritima</i> and turnstone <i>Arenaria interpres</i>, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> <li>○ Rocky shores with associated boulder and cobble beaches</li> <li>○ Artificial high tide roosts</li> </ul>	
Teesmouth and Cleveland Coast	<p><b>Natural England conservation objective for the internationally important populations of regularly occurring Annex 1 birds species.</b></p> <p>Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring Annex 1 bird species, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> <li>○ Sand and shingle</li> <li>○ Intertidal sandflat and mudflat</li> <li>○ Shallow coastal waters</li> </ul> <p><b>Natural England conservation objective for the internationally important populations of regularly occurring migratory birds species.</b></p> <p>Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of regularly occurring migratory bird species, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> <li>○ Rocky shores</li> <li>○ Intertidal sandflat and mudflat</li> <li>○ Saltmarsh</li> </ul> <p><b>Natural England conservation objective for the internationally important assemblage of water birds.</b></p> <p>Subject to natural change, maintain in favourable condition the habitats for the internationally important assemblage of waterbirds, under the Birds Directive, in particular:</p> <ul style="list-style-type: none"> <li>○ Rocky shores</li> <li>○ Intertidal sandflat and mudflat</li> <li>○ Saltmarsh</li> </ul>	
Flamborough Head and Bempton Cliffs	<p><b>Natural England conservation objectives for current SPA breeding seabird interest features</b></p>	

	<p>Subject to natural change, maintain in favourable condition the habitats for the populations of migratory bird species (kittiwake) and seabirds that contribute to the breeding seabird assemblage, of European importance, with particular reference to:</p> <ul style="list-style-type: none"> <li>○ Coastal cliffs and caves</li> </ul>	
<b>Special Areas of Conservation</b>	<b>Conservation Objectives</b>	
Durham Coast	<p><b>Natural England's statutory advice as provided under Regulation 33 of the Habitats Regulation</b></p> <p><b>Vegetated Sea Cliffs of the Atlantic and Baltic Coasts</b> Subject to natural change, maintain the vegetated sea cliffs of the Atlantic and Baltic coasts in favourable condition.</p>	<p><b>Vegetated Sea Cliffs of the Atlantic and Baltic Coasts</b></p> <p><i>Extent</i></p> <ul style="list-style-type: none"> <li>○ The overall length and/or area of the cliff habitat of the site is maintained taking into account natural variation.</li> </ul> <p><i>Mobility</i></p> <ul style="list-style-type: none"> <li>○ No increase in linear extent or area constrained by introduced structures or landforms</li> </ul> <p><i>Physical features</i></p> <ul style="list-style-type: none"> <li>○ Maintain the range of physical conditions arising from variation in geology and geomorphology, profile, stability, degree of maritime exposure, drainage</li> </ul>
Castle Eden Dene	<p><b>Natural England's statutory advice as provided under Regulation 33 of the Habitats Regulation</b></p> <p><b>Taxus baccata woods of the British Isles.</b> Subject to natural change, maintain the <i>Taxus baccata</i> woods of the British Isles in favourable condition</p>	
Beast Cliff-Whitby (Robin Hood's Bay)	<p><b>Natural England's statutory advice as provided under Regulation 33 of the Habitats Regulation</b></p> <p><b>Vegetated Sea Cliffs of the Atlantic and Baltic Coasts</b> Subject to natural change, maintain the vegetated sea cliffs of the Atlantic and Baltic coasts in favourable condition.</p>	
Flamborough Head	<p><b>Natural England's statutory advice as provided under Regulation 33 of the Habitats Regulations</b></p> <p><b>Reefs</b> Subject to natural change, maintain the reefs in favourable condition, in particular:</p> <ul style="list-style-type: none"> <li>○ Rocky shore communities</li> <li>○ Kelp forest communities</li> <li>○ Subtidal faunal turf communities</li> </ul> <p><b>Submerged or partially submerged sea caves</b> Subject to natural change, maintain the submerged or partially submerged sea caves in favourable condition, in particular:</p> <ul style="list-style-type: none"> <li>○ Microalgal and lichen communities</li> </ul>	<p><b>Reefs</b></p> <p><i>Extent</i></p> <ul style="list-style-type: none"> <li>○ No decrease in extent from the established baseline, subject to natural change.</li> </ul> <p><i>Rocky shore communities</i></p> <ul style="list-style-type: none"> <li>○ No decrease in littoral extent and range of biotopes from the established baseline, subject</li> </ul>

	<ul style="list-style-type: none"> <li>○ Faunal cushion and crust communities</li> </ul> <p><b>Natural England conservation objectives for the adjacent coastal cSAC vegetated sea cliff</b></p> <p>Subject to natural change, maintain the vegetated sea cliffs in favourable condition, in particular:</p> <ul style="list-style-type: none"> <li>○ Vegetation communities characteristic of maritime and paramaritime influence</li> <li>○ Vegetation communities characteristic of chalk and boulder clay/flushes on the cliff edge</li> <li>○ Physical processes which support the full range of vegetation communities characteristic of the site</li> </ul>	<p>to natural change.</p> <ul style="list-style-type: none"> <li>○ Distribution of characteristic communities should not deviate significantly from the established baseline, subject to natural change.</li> </ul> <p><b>Sea caves</b> <i>Extent</i></p> <ul style="list-style-type: none"> <li>○ No decrease in extent from a baseline to be established, subject to natural change.</li> </ul>
<b>Ramsar sites</b>	<b>Conservation Objectives</b>	
Northumbria Coast	Refer to SPA objectives above	
Teesmouth and Cleveland Coast	Refer to SPA objectives above	

## 6 CONSIDERATION OF OTHER PLANS AND PROJECTS

6.0.1 The Habitats Regulations provide the requirement for an ‘in combination’ assessment to determine the likely significant effects of a plan or project, alone or in-combination with other plans or projects. Natural England (in its Habitats Regulations Guidance Notes), its Draft Guidance on The Assessment of RSS and Sub-Regional Strategies and the DCLG (then ODPM) in Circular 6/2005 have provided guidance in regard to the manner in which ‘in combination’ assessments should be provided and the scope to which other plans or projects should be considered within this. In regard to the plans and projects which will need to be considered ‘in combination’ with the SMP, there is a clear need to provide an appropriate scope to ensure that the overall assessment is manageable and effective and meets with the terms of the Habitats Regulations. In order to provide a focus to determine which plans and project, will be included within this assessment, the following criteria have been applied:

- Projects which have been given consent, but which have not yet been implemented (this could include unimplemented large scale housing developments or proposals for port developments);
- Ongoing projects subject to regulatory reviews;
- Other plans which contain policies which may trigger development which may impacts on the sites identified as being relevant to this assessment; and
- Non-statutory plans which may influence development.

6.0.2 On the basis of the above criteria, a review of policy within the plan area has been evaluated to determine the policy which needs to be included within the ‘in combination’ assessment. Clearly, the policies which will be relevant in the context of the Appropriate Assessment are quite specific. Such policies will relate to the allocation of development (spatially defined) which will have an equivalent effect on sites when compared with SMP policy. For example, one of the key mechanism relating to impacts on the SPAs has been identified as habitat loss as a result of coastal squeeze, and accordingly, policies which have the same effect have been included within the ‘in combination’ assessment. Key policy areas will therefore relate to development allocation within the coastal zone and coastal zone flood risk management. There is also the potential for SMP policy to have an effect which in-combination with an entirely different effect from another plan or project. The assessment of differing effects is considered to be extremely complex, given the uncertainties at the policy stage assessment. It is therefore considered to be more appropriate for differing effects to be considered at the proposal stage.

### 6.1 Plans and projects within the SMP Area

6.1.1 Regional Plans and Strategies within the SMP area which may influence coastal flood risk management and coastal development include:

- Regional Planning Guidance for the North East (November 2002) - which in the longer term will be replaced with a Regional Spatial Strategy;
- Regional Spatial Strategy for Yorkshire and the Humber to 2016 (December 2004);
- Northumberland Coast Management Plan (1993);
- City of Sunderland Seafront Strategy (2000);
- Durham Heritage Coast Management Plan 2005-2010 (2005);

- North Yorkshire and Cleveland Coastal Forum: A Strategy For The Coast (2004-2009);
- Flamborough Headland Heritage Coast Management Strategy (2003); and
- East Riding Integrated Coastal Zone Management Plan 2002

6.1.2 Local planning policy which may influence coastal flood risk management and coastal development include:

- South Tyneside Unitary Development Plan – 2001;
- City of Sunderland Unitary Development Plan – 1998;
- District of Easington Local Plan – 2001;
- Hartlepool Revised Local Plan – 2003;
- Redcar and Cleveland Local Plan – 1999;
- Scarborough Borough Local Plan – 1999;
- North York Moors Local Plan – 2003; and
- East Yorkshire Borough Wide Local Plan – 1997.

6.1.3 At a regional level the following policies have been identified within the Regional Planning Guidance for the North East (RPG 1) and Regional Spatial Strategy for Yorkshire and the Humber to 2016 (RSS 12) as those with a potential to have in-combination effects (i.e. coastal flood risk management and coastal development) with policies described within the SMP. However, without site specific details it is not possible to determine whether in-combination effects are likely.

6.1.4 More details (such as specific housing allocation and employment sites) can be considered following a review of individual Local Plans.

Table 6.1. Relevant policies within RPG 1

Policy	Policy summary	In-combination effects
DP1 – The Sequential Approach to Development	Development Plans should adopt a sequential approach to the identification of land for development to give priority to previously-developed land and buildings in the most sustainable locations.	Potentially
ENV4 – Flooding	Development Plans and other strategies should: <ul style="list-style-type: none"> <li>○ Protect flood plains and existing or proposed flood defences;</li> </ul>	Potentially
EL7 – Airport, Port and Rail-Based Development	Safeguard development sites adjacent to existing ports for industries and port-related services that will benefit from these locations.	Potentially
H2 – Housing Distribution	Annual Average Rates of Housing Provision 2002-2006	Potentially
T16 – Ports	Development Plans, Local Transport Plans and other strategies should assist the role of ports in supporting the regional economy and meeting transport needs by:	Potentially
MIN10 – Aggregate Reserves	Take account of the contribution to be made by the use of secondary and recycled aggregates and also of marine-dredged aggregates, where these can be obtained in a	Potentially

	sustainable way.	
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Table 6.2. Relevant policies within RSS 12

Policy	Policy summary	In-combination effects
S2 – Regeneration Priority Area	The priority for regional regeneration initiatives and programmes will include the more deprived parts of the older industrial areas and the remote rural and coastal areas.	Potentially
P1	Strategic patterns of development.	Potentially
E2 - Rural employment opportunities	Employment opportunities and developments should be encouraged in rural areas in accordance with Policy P1 and sustainable development criteria.	Potentially
H1 - Distribution of additional housing	Development plans should include appropriate policies and proposals so as to achieve the annual average additions to the housing stock over the period 1998-2016.	Potentially
R1 – Integrated Coastal Zone Management for the East Coast and Humber Estuary	Local authorities and others should take an integrated and consistent approach to the management of the East coast and Humber Estuary. In preparing and implementing their development plans and other strategies, local authorities and others should establish effective partnerships to bring together the wide range of different interests and powers in the coastal and estuarine zones..	Potentially

6.1.5 The review of regional and local policy to identify policies which may have the same effect on International sites as SMP policy has provided the focus for the selection of policies for the ‘in combination’ assessment. The in combination assessment has therefore been provided in regard to the inclusion of policies, where it can be established that the effects of such policy are the same as SMP policy. Appendix Three provides a tabulated account of such policies in the same format as the assessment for SMP policy evaluation.

6.1.6 The following section provides an account of how this in combination assessment has been provided in the context of the plans identified above and the broader assessment of SMP policy.

## 7 THE APPROPRIATE ASSESSMENT

7.1.0 Management Areas within the SMP have been devised to provide discreet, spatial areas for policy application. As such, the potential effects of each policy suite will be limited to that Management Area alone. Management areas which contain no International site within or adjacent to its boundary has been concluded as having no adverse effect on the integrity of a International site. However, if a policy will effect an adjacent Management Area, this will be included in the assessment. For each management area, an assessment has been provided of the impacts of all management area policies on the features of the International sites within or adjacent to the area. This detailed account is provided as Appendix Two. Within this section, a summarised account of each mini-assessment is provided regarding the overall assessment of policy within the SMP. The in-combination assessment has also been provided in a similar structure, and follows the initial assessment of SMP policy. In the interest of clarity, SMP assessment is provided in **blue** text and the in combination assessment in **green** text.

### 7.1.1 Management Area 01 – River Tyne to South Pier

The South Pier structure forms part of the Northumbria Coast SPA and Ramsar site. The proposed policy suite supports the natural development of the bay, however, holding the line of the pier (Policy 1.3) does not necessarily ensure that specific habitat utilised by roosting birds (particularly purple sandpiper) will be retained following sea level rise.

**Potential impact of policy:** Potential long-term loss of roosting habitat (boulders), associated with the South Pier structure, as a result of climate change (sea level rise).

**Preventative measures:** Ensure that appropriate roosting habitat is incorporated into any future requirement to raise the level of the pier (i.e. boulder habitat). The preventative measure is therefore specified as:

Any requirement to raise the level of the pier in this area will ensure that adequate and appropriate roosting areas are provided to ensure that the Annex 1 bird species in this area are not adversely effected in either the short or long term.

**Implications for the integrity of the site:** Provided that the preventative measures are incorporated in the future management of the pier, it can be concluded that the proposed policy suite will result in no adverse effects on the integrity of the Northumbria Coast SPA and Ramsar site.

### 7.1.2 Management Area 02 – Herd Sand

The proposed policy suite supports the long-term natural retreat of the dunes. The southern end of this dune habitat borders the vegetated sea cliff interest of Trow Point (Durham Coast SAC) and would be expected to result in the natural loss of a proportion of this habitat.

**Potential impact of policy:** Retreat of dune and cliff habitat, which is not considered an adverse effect on the integrity of the site.

**Preventative measures:** None.

**Implications for the integrity of the site:** No adverse effects are anticipated on the integrity of the Northumbria Coast SPA and Ramsar site.

### 7.1.3 Management Area 03 - Trow

Trow is part of the Northumbria Coast SPA and Ramsar site and Durham Coast SAC, designated for vegetated sea cliffs and littoral rock. This policy suite will support the long-term natural retreat of the cliffs and cobble beaches. The policy does however advocate a short term hold the line policy, the effects of which will need to be consideration at the strategy stage.

**Potential impact of policy:** The policy suite supports the natural retreat of cliff and littoral rock habitat.

**Preventative measures:** The preventative measures for this Management Area relate to the need to ensure that the effects on the integrity of international sites, of the management strategy are fully considered. The preventative measures are therefore:

In providing a strategy for this area, an Appropriate Assessment will be provided to establish the impacts of a hold the line policy in this area. It will therefore need to be demonstrated, that the implementation of such a policy will not have an adverse effect on the integrity of international sites within this Management Area.

**Implications for the integrity of the site:** No adverse effects are anticipated on the integrity of the International sites.

### 7.1.4 Management Area 04 – Frenchmans Bay to Lizard Point

MA04 includes interest features of the Northumbria Coast SPA and Ramsar site and Durham Coast SAC. The proposed policy suite supports the long-term natural erosion of the cliffs between Frenchman's Bay and Marsden's Bay and as a result the natural erosion of the cobble/boulder features.

**Potential impact of policy:** Long-term retreat of cliff and littoral rock habitat. As a result of this erosion process (supported by the SMP2 policy) it will be necessary to retreat the coastal path. Path retreat may, therefore, lead to a loss of habitat, however, such loss would be outside of the SAC boundary.

**Preventative measures:** None.

**Implications for the integrity of the site:** Natural development of coastline, therefore, no adverse effects are anticipated on the integrity of the International site.

### 7.1.5 Management Area 05 – Lizard Point to Souter Point

MA05 includes interest features of the Northumbria Coast SPA and Ramsar site and Durham Coast SAC. The proposed policy suite supports the long-term natural erosion of the cliffs and the exposed littoral rock and boulder habitat throughout the Management Area; however, there is potential exposure to contaminants (associated with the nearby coastal landfill) as a result of long-term erosion of the cliffs.

**Potential impact of policy:** Retreat of cliff and littoral rock habitat and resultant exposure to contaminants from nearby landfill. Dependent upon the exact nature of the contaminants this could result in direct impacts upon the SPA interest features (i.e. bird species). At the present time investigations are ongoing to determine the nature of the infill.

**Preventative and mitigation measures:** Managed retreat combined with monitoring to assess the risk of exposure to contaminants and the potential for the coast to absorb any potential effects of diffuse pollution; and the potential need to review SMP policy, once the extent and nature of the risk associated with infill material has been determined.

**Implications for the integrity of the site:** No adverse effects are anticipated on the integrity of the International sites provided that:

- the risk of exposure from contaminants is fully assessed and monitored; and
- appropriate mitigation measures are implemented once the nature of the contaminants and risk of exposure are fully determined.

### 7.1.6 Management Area 06 – Souter Point to Sunderland Harbour

MA06 includes interest features of the Northumbria Coast SPA and Ramsar site and Durham Coast SAC. This policy suite supports the long-term natural erosion of the cliffs and in turn the littoral rock and boulder habitat. The main transition area is at the Bents and the SMP recommends a policy of retreat but introducing a reinforcing of the nearshore natural controls to provide better opportunity for maintaining a relatively natural defence.

**Potential impact of policy:** The proposed policy suite supports the long-term natural erosion of the cliffs and in turn the littoral rock and boulder habitat. The reinforcement of nearshore controls could conceivably result in the creation of structures covering areas of SPA habitat, i.e. on top of the littoral rock, which would represent a loss of SPA foreshore habitat.

**Preventative measures:** Ensure that any control structures required within the foreshore zone, take the form of rock habitat suitable for the SPA interest, and, therefore, represent no net loss of available SPA habitat. The preventative measure can therefore be specified as:

Any control structures in this area based on existing bedrock, will be designed to provide the same ecological function (in regard to bird use) as such bedrock. The design will ensure that there is no overall loss of habitat function for Annex 1 bird species.

**Implications for the integrity of the site:** Provided that the preventative measures described are implemented, no adverse effects are anticipated on the integrity of the International site.

#### 7.1.7 Management Area 08 – Sunderland Harbour to Pincushion Rocks

MA08 includes interest features of the Northumbria Coast SPA and Ramsar site and Durham Coast SAC. The proposed policy suite supports the long-term natural retreat of littoral rock and boulder habitat, but with limited hard point control, thereby allowing the natural erosion of the cliffs to continue but with an element of control over the rate of erosion.

**Potential impact of policy:** Semi-natural retreat of cliff and littoral rock habitat. The provision of limited nearshore controls could conceivably result in the creation of structures covering discrete areas of SPA habitat, i.e. on top of the littoral rock, which would represent a loss of SPA foreshore habitat.

**Preventative measures:** Ensure that any control structures required within the foreshore zone, take the form of rock habitat suitable for the SPA interest, and, therefore, represent no net loss of available SPA habitat. The preventative measure can therefore be specified as:

Any control structures in this area based on existing bedrock, will be designed to provide the same ecological function (in regard to bird use) as such bedrock. The design will ensure that there is no overall loss of habitat function for Annex 1 bird species.

**Implications for the integrity of the site:** Provided that the preventative measures described are implemented, no adverse effects are anticipated on the integrity of the International site.

#### 7.1.8 Management Area 09 – Pincushion to Chourdon Point

MA09 includes interest features of the Northumbria Coast SPA and Ramsar site and Durham Coast SAC. The proposed policy suite supports the long-term natural retreat of the littoral rock and boulder habitat south of Pincushion. The existing defences between Seaham north promenade and the harbour will be retained (with limited retreat between Featherbed Rocks and the harbour); resulting sea level rise would be expected to lead to losses of the SPA foreshore in this vicinity.

**Potential impact of policy:** Long-term natural retreat of littoral rock and boulder habitat south of Pincushion. Potential losses of SPA foreshore (between Featherbed Rocks and the harbour) as a result of sea level rise. In addition, there is potential contamination associated with the cliffs to the south of the harbour, which could enter the coastal zone, and potentially affect the SPA interest feature.

**Preventative measures:** Retreat should be monitored to assess the risk of exposure and the potential for the coast to absorb any potential effects of diffuse pollution.

**Implications for the integrity of the site:** No adverse effects are anticipated on the integrity of the International sites provided that:

- the risk of exposure from contaminants is fully assessed and monitored; and
- appropriate mitigation measures are implemented once the nature of the contaminants and risk of exposure are fully determined.

#### 7.1.9 Management Area 10 – Chourdon Point to Blackhall Rocks

MA10 includes interest features of the Northumbria Coast SPA and Ramsar site and Durham Coast SAC. The proposed policy suite supports the natural development of coastal habitat. However, the area of most concern is the eroding cliffs between Foxholes Dene and Horden Point - here the vegetation is suffering coastal squeeze as this area of cliff top is still subject to arable crops. To the south of Horden Point the cliffs are protected by colliery wastes on the beach.

**Potential impact of policy:** Coastal squeeze along the area of cliff top between Foxholes Dene and Horden Point as the area is subject to arable cropping.

**Preventative measures:** None

**Implications for the integrity of the site:** No adverse effects are anticipated on the integrity of the International sites as a result of the policy suite proposed within the SMP.

#### 7.1.10 Management Area 11 – Blackhall Rocks to Heugh Breakwater

MA11 includes interest features of the Northumbria Coast SPA and Ramsar site; the Teesmouth and Cleveland Coast SPA and Ramsar site and Durham Coast SAC. The proposed policy suite supports, in general, the natural development of the SPA, Ramsar and SAC designated coastal habitats.

There could, however, be short-term coastal squeeze and subsequent net losses of SPA and Ramsar designated foreshore habitat between North Sands and Hartlepool Headland. Holding the line at Hartlepool Headland may result in the loss of habitat due to the provision of enhanced toe protection over the littoral rock sub-feature at Parton Rocks

**Potential impact of policy:** There is currently a danger of short-term coastal squeeze and subsequent net losses of SPA and Ramsar designated foreshore habitat (between North Sands and Hartlepool Headland). However, the intent of the SMP policy suite is specifically seeking to provide enhanced levels of accretion of soft sediment in this area, within the context of a management plan. The default policy would be retreat with a buffer zone created against development.

Holding the line at Hartlepool Headland may result in the loss of habitat due to the provision of enhanced toe protection over the littoral rock sub-feature at Parton Rocks. Additionally the provision of toe protection works has the potential to lead to increased energy in the foreshore due to wave reflection from the toe.

**Preventative measures:** Limit and manage erosion through strategic control structures between North Sands and Hartlepool Headland and to ensure that toe protection (Hartlepool Headland) takes the form of rock habitat suitable for the SPA interest, and, therefore, represent no net loss of available SPA habitat. There is also the need to ensure that the potential effects on foreshore habitat from wave reflection of any toe enhancement are fully considered. The preventative measure can therefore be specified as:

Any control structures in this area based on existing bedrock, will be designed to provide the same ecological function (in regard to bird use) as such bedrock. The design will ensure that there is no overall loss of habitat function for Annex 1 bird species.

In providing any additional coastal defence works on the toe of the headland, full consideration will be given to the design of such works so that foreshore habitat is not compromised as a result of increased energy from wave reflection.

**Implications for the integrity of the site:** SMP policy actively seeks to prevent coastal squeeze and enhance habitat levels.

Provided that the preventative measures described are implemented, no adverse effects are anticipated on the integrity of the International site.

#### 7.1.11 Management Area 12 – Hartlepool Bay

MA12 includes interest features of the Teesmouth and Cleveland Coast SPA and Ramsar site. The proposed policy suite could lead to enhanced scour and/or wave exposure to the SPA and Ramsar features associated with Hartlepool Headland.

**Potential impact of policy:** The SMP policy and the Hartlepool Coastal Strategy have identified the potential loss of the final third of the Heugh breakwater. This decision has been deferred subject to monitoring. If such a loss occurred then the policy suite could lead to enhanced scour and/or wave exposure to the SPA and Ramsar features.

**Preventative measures:**

The scale of impact on SPA/Ramsar sub features needs to be identified before preventative measures can be established. Dependent upon the decision regarding the breakwater, mitigation measures will need to be appropriate to the scale of the impacts and in line with any preventative measures. The preventative measure can therefore be provided as:

In deciding the course of action relating to the retention or loss of the Heugh Breakwater full consideration will be given to the effects on the integrity of adjacent international sites via the evaluation of the options available in the context of an Appropriate Assessment.

**Implications for the integrity of the site:** Unknown at this stage.

#### 7.1.12 Management Area 13 – Tees Bay

MA13 includes interest features of the Teesmouth and Cleveland Coast SPA and Ramsar site. Maintaining the Gare breakwaters maintains overall control of the frontages to the north and east. Within this there would be a natural retreat of the Seaton Dunes. No active intervention to the south and east of the estuary will also lead to the natural development of Coatham Sands.

**Potential impact of policy:** The policy suite supports the natural development of the Seaton Dunes and Coatham Sands.

**Preventative measures:** None.

**Implications for the integrity of the site:** Natural development of coastline, therefore, no adverse effects are anticipated on the integrity of the International site.

#### 7.1.13 Management Area 14 – Coatham and Redcar

MA14 includes interest features of the Teesmouth and Cleveland Coast SPA and Ramsar site. Defending the Redcar frontage could result in potential losses of sand foreshore.

**Potential impact of policy:** The policy suite is to defend the Redcar frontage. This could lead to potential losses of sand foreshore, however, the intent of the policy is to look to local management options to maintain the beach and, therefore, maintain the SPA interest sub-feature.

**Preventative measures:** Ensure that local management options to maintain the sand foreshore are incorporated into engineering measures to defend the Redcar frontage. The preventative measure is therefore:

Any schemes which are intended to protect the Redcar frontage will be designed so that it can be clearly demonstrated that there will be no overall loss of sand foreshore. Such schemes should also provided a temporal analysis of any works, to ensure that impacts on foreshore bird communities are avoided.

**Implications for the integrity of the site:** Provided that the preventative measures described are implemented, no adverse effects are anticipated on the integrity of the International site.

#### 7.1.14 Management Area 25 – Saltwick Nab to Hundale Point (Robin Hoods Bay)

MA25 includes interest features of the Beast Cliff-Whitby (Robin Hood's Bay) SAC. The proposed policy suite supports the natural development of the coastline and particularly the sea cliffs. With only limited intervention to ensure that the village of Robin Hood's Bay is maintained.

**Potential impact of policy:** Natural development of the coastline and particularly the sea cliffs.

**Preventative measures:** At present there are no specific plans to undertake works in the area. It is possible that any such works in the future will be little more than local maintenance. Even so, in the planning and assessment of the need for such works, the potential impacts on site will need to be fully addressed.

**Implications for the integrity of the site:** Natural development of coastline, therefore, no adverse effects are anticipated on the integrity of the International site.

#### 7.1.15 Management Area 33 – Muston Sands to Flamborough Head

MA33 includes interest features of the Flamborough Head and Bempton Cliffs SPA and Flamborough Head SAC. The proposed policy suite supports the overall natural development of the coastline through a policy of No Active Intervention. Within this overall policy, the intent would be to allow works necessary to sustain the operation of the North Landing (which could result in localised losses to SAC and SPA features). The policy for Flamborough Head would similarly be for local management based on improved monitoring of erosion rates.

**Potential impact of policy:** Natural development of the coastline.

**Preventative measures:** None.

**Implications for the integrity of the site:** No adverse effects are anticipated on the integrity of the International sites.

## 7.2 In-combination effects

### 7.2.1 Management Area 01 – River Tyne to South Pier

**Relevant policies/plans considered for inclusion:**

*South Tyneside Unitary Development Plan*

*ENV 17/1 (Development likely to prejudice flood defences)*

*ENV 18/2 (Planning application within the coastal zone)*

*ENV 19/1 (Development in relation to designated International sites)*

**Potential impact of policy:**

A commitment to develop / enhance this zone for leisure and tourism could result in new development adjacent to the South Pier. However, environmental policy ENV 19/1 precludes any development that would affect a International site. As such, no in-combination impact is anticipated.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

#### 7.2.2 Management Area 02 – Herd Sand

**Relevant policies/plans considered for inclusion:**

*South Tyneside Unitary Development Plan*

*ENV 17/1 (Development likely to prejudice flood defences)*

*ENV 18/2 (Planning application within the coastal zone)*

*ENV 19/1 (Development in relation to designated International sites)*

**Potential impact of policy:**

There are no specific proposals within the Unitary Development Plan for this Management Area that are anticipated to affect the integrity of International designated sites in combination with the SMP2 proposed policy suite.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

#### 7.2.3 Management Area 03 - Trow

**Relevant policies/plans considered for inclusion:**

*South Tyneside Unitary Development Plan*

*ENV 17/1 (Development likely to prejudice flood defences)*

*ENV 18/2 (Planning application within the coastal zone)*

*ENV 19/1 (Development in relation to designated International sites)*

**Potential impact of policy:**

There are no specific proposals within the Unitary Development Plan for this Management Area that are anticipated to affect the integrity of International designated sites in combination with the SMP2 proposed policy suite.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

#### 7.2.4 Management Area 04 – Frenchmans Bay to Lizard Point

**Relevant policies/plans considered for inclusion:**

*South Tyneside Unitary Development Plan*

*ENV 17/1 (Development likely to prejudice flood defences)*

*ENV 18/2 (Planning application within the coastal zone)*

*ENV 19/1(Development in relation to designated International sites)*

**Potential impact of policy:**

There are no specific proposals within the Unitary Development Plan between Frenchman's Bay and Lizard Point that are anticipated to affect the integrity of International designated sites in combination with the SMP2 proposed policy suite. However, a decision to retain the coastal road and path (i.e. incorporating protective measures) combined with an SMP policy suite that supports the natural development of the coastline could lead to coastal squeeze during the lifetime of the SMP. However, the intent of the SMP policy suite supports the natural development of the coastline and any subsequent mechanism that then effects the integrity of a International site would effectively be acting alone and not 'in-combination' with the SMP policy.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.5 Management Area 05 – Lizard Point to Souter Point

**Relevant policies/plans considered for inclusion:**

*South Tyneside Unitary Development Plan*

*ENV 17/1 (Development likely to prejudice flood defences)*

*ENV 18/2 (Planning application within the coastal zone)*

*ENV 19/1(Development in relation to designated International sites)*

**Potential impact of policy:**

There are no specific proposals within the Unitary Development Plan between Lizard Point to Souter Point that are anticipated to affect the integrity of International designated sites in combination with the SMP2 proposed policy suite.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.6 Management Area 06 – Souter Point to Sunderland Harbour

**Relevant policies/plans considered for inclusion:**

*South Tyneside Unitary Development Plan*

*ENV 17/1 (Development likely to prejudice flood defences)*

*ENV 18/2 (Planning application within the coastal zone)*

*ENV 19/1(Development in relation to designated International sites)*

*City of Sunderland Unitary Development Plan*

*CN 19 (Development in relation to designated International sites)*

**Potential impact of policy:**

There are no specific proposals within the Unitary Development Plans that are anticipated to affect the integrity of International designated sites in combination with the SMP2 proposed policy suite. There are, however, plans for a new comprehensive school in Whitburn; should long-term protection from the eroding cliff edge be required, this could have coastal squeeze implications. However, erosion rates suggest that the coastline will not reach the school within its design life and as such coastal protection works, for the school, would be opposed by Natural England (pers comm Mike Quigley, Natural England). The intent of the SMP policy suite at Whitburn supports the natural development of the coastline and any subsequent mechanism that then effects the integrity of a International site (i.e. cliff protection works to the proposed school) would effectively be acting alone and not 'in-combination' with the SMP policy.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.7 Management Area 08 – Sunderland Harbour to Pincushion Rocks

**Relevant policies/plans considered for inclusion:**

*City of Sunderland Unitary Development Plan*

*CN 19 (Development in relation to designated International sites)*

**Potential impact of policy:**

There are no specific proposals within the City of Sunderland Unitary Development Plan for the stretch of coastline that are anticipated to affect the integrity of International designated sites in combination with the SMP proposed policy suite. Should cliff protection works be required to protect the new Southern Radial Road and railway, there could be resultant coastal squeeze implications, however, the SMP recommends hard point control, thereby allowing the natural erosion of the cliffs to continue but with control over the rate of erosion, and as such should erosion rates would not threaten the road/rail network.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.8 Management Area 09 – Pincushion to Chourdon Point

**Relevant policies/plans considered for inclusion:**

*City of Sunderland Unitary Development Plan*

*CN 19 (Development in relation to designated International sites)*

*District of Easington Local Plan*

*14(Development in relation to designated International sites)*

*S28 (Development of the North Dock area of Seaham Harbour for tourism)*

**Potential impact of policy:**

Development of the North Dock is adjacent to the SPA and Ramsar features associated with the area between Featherbed Rocks and Seaham Harbour. The long-term SMP policy is to hold a retreated line that will fall short of North Dock, therefore the Local Plan policy will not result in any additional in-combination effects.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.9 Management Area 10 – Chourdon Point to Blackhall Rocks

**Relevant policies/plans considered for inclusion:**

*District of Easington Local Plan*

*14(Development in relation to designated International sites)*

*31 (Improvement of coastal railway corridor)*

**Potential impact of policy:**

The intent of the SMP policy suite supports the natural development of the coastline and any subsequent mechanism that then effects the integrity of a International site (i.e. cliff protection works for the railway) would effectively be acting alone and not 'in-combination' with the SMP policy.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.10 Management Area 11 – Blackhall Rocks to Heugh Breakwater

**Relevant policies/plans considered for inclusion:**

*District of Easington Local Plan*

*14(Development in relation to designated International sites)*

*85 (Development of land at Crimdon for recreation)*

*Hartlepool Revised Local Plan*

*WL1 (Protection of International Nature Conservation Sites)*

*TO2 (Visitor-related development within the Hartlepool Headland)*

**Potential impact of policy:**

The area identified for visitor related development within Hartlepool Headland lies adjacent to the SPA and Ramsar boundaries. However, given that the SMP2 policy is to

hold the line in this area and the protection afforded within Policy WL1, no in combination effects are anticipated.

The site highlighted for development at Crimdon is in close proximity to the Teesmouth and Cleveland SPA/Ramsar and Durham Coast SAC. However, the boundary of this proposed area is landward of the existing rail track and as such outside of the potential zone of influence of the SMP2 policy suite. As such, no in-combination effects are anticipated.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.11 Management Area 12 – Hartlepool Bay

**Relevant policies/plans considered for inclusion:**

*Hartlepool Revised Local Plan*

*WL1 (Protection of International Nature Conservation Sites)*

*TO2 (Visitor-related development within the Hartlepool Headland)*

**Potential impact of policy:**

The area identified for visitor related development within Hartlepool Headland lies adjacent to the SPA and Ramsar boundaries. However, given that the SMP2 policy is to hold the line in this area and the protection afforded within Policy WL1, no in combination effects are anticipated.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.12 Management Area 13 – Tees Bay

**Relevant policies/plans considered for inclusion:**

*Hartlepool Revised Local Plan*

*WL1 (Protection of International Nature Conservation Sites)*

*TO2 (Visitor-related development within the Hartlepool Headland)*

*Redcar and Cleveland Local Plan*

*ENV25 (Special Protection Areas or Ramsar Sites)*

*IND1 (Potentially Polluting or Hazardous Industry)*

**Potential impact of policy:**

There are no specific proposals within the Hartlepool Revised Local Plan between Little Scar and the River Tees or within the Redcar and Cleveland Local Plan between the River Tees and Coatham that are anticipated to affect the integrity of this International designated site feature in combination with the SMP2 proposed policy suite.

Part of the Teesport / British Steel Corridor area sits adjacent to Bran Sands (part of the Teesmouth and Cleveland SPA and Ramsar Site) and is reserved for potentially polluting and hazardous industry (Redcar and Cleveland Local Plan). The SMP2 policy suite for MA13 seeks to hold the line along this section of the frontage to fulfil the overarching policy aim of retaining control of the frontages but allowing natural development of Seaton and Coatham Sands. Holding the line along this frontage combined with a Local Plan policy to encourage industry behind this line is not expected to constitute additional 'in-combination' pressure upon the frontage.

***Preventative measures:***

None

***Implications for the integrity of the site:***

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.13 Management Area 14 – Coatham and Redcar

***Relevant policies/plans considered for inclusion:***

*Redcar and Cleveland Local Plan*

*ENV25 (Special Protection Areas or Ramsar Sites)*

*SH9 (Amusement centres and arcades within the seaside visitor centres)*

***Potential impact of policy:***

Policy SH9 allows for amusement centres and arcades to be permitted along the frontage, adjacent to the foreshore SPA/Ramsar interest features. The SMP2 policy suite seeks to protect the Redcar frontage with associated potential losses of sand foreshore. As such development behind this held line will not represent additional 'in-combination' effects upon the integrity of the International designated sites.

***Preventative measures:***

None

***Implications for the integrity of the site:***

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.14 Management Area 25 – Saltwick Nab to Hundale Point (Robin Hoods Bay)

***Relevant policies/plans considered for inclusion:***

*North York Moors Local Plan*

*NE1 (Special Protection Area (SPA) and Special Areas of Conservation (SAC))*

***Potential impact of policy:***

There are no specific proposals within the North York Moors Local Plan that are anticipated to affect the integrity of Beast Cliff-Whitby SAC, in combination with the SMP2 proposed policy suite.

***Preventative measures:***

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

7.2.15 Management Area 33 – Muston Sands to Flamborough Head

**Relevant policies/plans considered for inclusion:**

East Yorkshire Borough Wide Local Plan  
EN8 (International Nature Conservation Sites)

**Potential impact of policy:**

There are no specific proposals within the East Yorkshire Borough Wide Local Plan that are anticipated to affect the integrity of the International designated sites, in combination with the SMP2 proposed policy suite.

**Preventative measures:**

None

**Implications for the integrity of the site:**

No adverse effects are anticipated on the integrity of the International site, as a result of the existing local policy suite in-combination with the proposed SMP2 policy suite.

**7.3 Conclusions**

7.3.1 The provision of an active consideration of maintaining the integrity of International sites in the preparation and development of SMP policy is reflected within this assessment. It is clearly apparent that measures have been taken to factor the requirements of the Natura 2000 network into the SMP policy suite. Accordingly, SMP policy is largely focussed on maintaining or pursuing measures which will either maintain or enhance the features of International sites. Management units can therefore be classified as falling into two categories: no adverse effect on the integrity of International sites; and no adverse effect on International sites pending the provision of preventative measures in actually implementing the policy suite. It should be noted that in providing an assessment of SMP policy, the actual design of schemes to implement such policy, will provide the most focussed stage in preventing any adverse effect on the integrity of international sites. The preventative measures supplied therefore will ensure that where a policy could have an adverse effect, the implementation of policy is provided in a manner which will prevent this.

7.3.2 Of the SMP policies assessed (the alone assessment), the management areas fall into the following categories:

No adverse effect on the integrity of International sites

For the majority of management areas, it can be concluded that the policy suite they contain will not have an adverse effect on the integrity of a International site. Such management areas are:

- MA02 Herd Sand
- MA04 Frenchmans Bay to Lizard Point
- MA10 Chourdon Point to Blackhall Rocks
- MA13 Tee’s Bay

MA25 Saltwick Nab to Hundail Point  
 MA33 Muston Sands to Flamborough Head

No adverse effect on International sites pending details of actually implementing the policy

Seven management areas have been identified where it cannot be concluded that their policy suite would not have an adverse effect on the integrity of International sites, unless additional measures are provided in implementing specific policies. Such management areas should be considered in regard to the manner to which caveats can be added to SMP policy, which focus implementation and the steps which can be taken at the actual scheme level (which in itself will then be likely to require an Appropriate Assessment). Such management areas, can therefore be described as having no adverse effect on the integrity of an International site, providing that the supplementary measures specified are provided. The preventative measures will ensure (as the name implies) that any adverse effect on site integrity is prevented. In this respect, these caveats will become part of SMP policy and therefore mitigate any adverse effect of Management Area policy. The preventative measures will be included in the SMP as part of an implementation strategy which will ensure that the measures focus policy implementation.

Management areas requiring additional guidance to shape the implementation of policy so that any adverse effects on site integrity are avoided are as follows:

MA01 River Tyne to South Pier  
 MA03 Trow  
 MA05 Lizard Point to Souter Point  
 MA06 Souter Point to Sunderland Harbour  
 MA08 Sunderland Harbour to Pincushion Rocks  
 MA09 Pincushion to Chourdon Point  
 MA11 Blackhall Rocks to Haugh Breakwater  
 MA12 Hartlepool Bay  
 MA14 Coatham and Redcar

7.3.3 Off the plans and projects included within this assessment, none were considered to be contributory to the same potential effects as SMP policy given that preventative measures have been provided to ensure that any possible adverse effects of SMP policy are avoided via the implementation of the preventative measures listed above. It is also likely however, that since SMP provides the broader strategic focus to coastal defence (albeit on a non-statutory basis), policies which are likely to have a similar effect to SMP policy are unlikely to be evident. For an in combination effect to be considered, as discussed within this document, it needs to be clearly shown that the effect of such plans or projects would need to be demonstrably the same (effect) as that of the SMP. In the context of this assessment and the preventative measures listed, such examples were not found.

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## Glossary

**Competent Authority:** The organisation which prepares a plan or programme subject to the Directive and is responsible for the AA.

**Indicator:** A measure of variables over time, often used to measure achievement of objectives.

**Mitigation:** Used in this Guide to refer to measures to avoid, reduce or offset significant adverse effects on the environment.

**Objective:** A statement of what is intended, specifying the desired direction of change in trends.

**Plan or Programme:** For the purposes of this Guide, the term “plan or programme” covers any plans or programmes to which the Directive applies.

**Preventative Measure:** An action relating to an SMP policy which will ensure that any possible adverse effects of implementing the policy are prevented.

**Scoping:** The process of deciding the scope and level of detail of an AA, including the environmental effects and alternatives which need to be considered, the assessment methods to be used, and the structure and contents of the Appropriate Assessment Report.

## Appendix 1

Table A.1. Table of all SMP Policies and their likely effects on the integrity of International Sites (Likely Effect - None; Potential and Significant)

Management Area		Policy Area		International Sites	Potential Issues	Likely Effect
MA01	River Tyne to South Pier	1.1	South Groyne	Northumbria Coast SPA	The plan is to maintain the South Pier (which is the only designated element of this Management Area).	Potentially significant
		1.2	Littlehaven			
		1.3	South Pier	Northumbria Coast Ramsar		
MA02	Herd Sand	2.1	Herd Sands North	Northumbria Coast SPA	Herd Sands is not designated itself but is bordered by the 3 International sites.	Potentially significant
		2.2	Herd Sands South	Northumbria Coast Ramsar		
		2.3	Trow Point (north)			
MA03	Trow	3.1	Trow Point (south)	Durham Coast SAC	Potential contamination of foreshore due to landfill. In the medium term the implementation of HTL on a localised basis to avoid contamination could impact features of the SAC.	Potentially significant
		3.2	Trow Quarry			
MA04	Frenchmans Bay to Lizard Point	4.1	North of Lizard Pt.		Potential loss of SAC cliff vegetation due to possible cliff protection works to protect main coast path.	Potentially significant
		4.2	Lizard Pt			
MA05	Lizard Point to Souter Point	5.1	Harbour Quarry		Potential contamination of SPA foreshore features due to leaching contaminants from coastal landfill. Potential loss of SAC habitat if hard defences implemented.	Potentially significant
		5.2	Harbour Quarry to Souter Point			
MA06	Souter Point to Sunderland Harbour	6.1	Whitburn Cliffs		Potential loss of SAC cliff vegetation and SPA foreshore features due to possible cliff protection works to protect proposed new comprehensive school.	Potentially significant
		6.2	The Bents			
		6.3	South Bent/Seaburn			
		6.4	Parson's Rock			
		6.5	Marine Walk			
MA07	Sunderland Harbour	7.1	Main Harbour Piers	None	None	None
		7.2	North Harbour			
		7.3	South Harbour			
MA08	Sunderland Harbour to Pincushion Rocks	8.1	Harbour East Bay	Northumbria Coast SPA	Potential loss of SAC cliff vegetation and SPA foreshore features due to possible cliff protection works to protect the new southern radial road and	Potentially significant
		8.2	Harbour South Face	Northumbria Coast Ramsar		
		8.3	Hendon			

Management Area		Policy Area		International Sites	Potential Issues	Likely Effect
			Seawall	Durham Coast SAC	railway.	
		8.4	Hendon to Pincushion			
MA09	Pincushion to Chourdon Point	9.1	Pincushion to Seaham		Proposed policy of No Intervention in defence of the cliffs north of Seaham accepting a natural retreat of this frontage	Potentially significant
		9.2	Seaham North Prom.		Proposed policy of Hold the Line resulting in potential losses of the beach area (including SPA and Ramsar habitat).	Potentially significant
		9.3	Red Acre Cliffs		Limited Retreat of this undefended length proposed.	Potentially significant
		9.4	Seaham Harbour		Proposed policy of Hold the Line to protect existing port activities.	Potentially significant
		9.5	Seaham South			
		9.6	Dawdon Beach		Proposed policy of No Active Intervention. Although further investigation as to the nature of contamination within the cliffs to the south of the harbour is required.	Potentially significant
		9.7	Blast Beach		Proposed policy of No Active Intervention to the south of Noses Point allowing the natural erosion of the coast to continue.	Potentially significant
MA10	Chourdon Point to Blackhall Rocks	10.1	Chourdon Point to Blackhall Rocks	Northumbria Coast SPA Northumbria Coast Ramsar Durham Coast SAC Castle Eden Dene SAC	Proposed policy of No Active Intervention, although in the long-term there may be a need to protect the railway line leading to potential losses of SAC cliff vegetation.	Potentially significant
MA11	Blackhall Rocks to Heugh Breakwater	11.1	Crimdon Valley	Northumbria Coast SPA Teemouth and Cleveland Coast SPA Northumbria Coast Ramsar Teemouth and Cleveland Coast Ramsar	Intertidal habitat, of particular note for the breeding colony of little tern at Crimdon – at risk due to continued erosion.  Proposed policy of No Active Intervention. Short-term protection may be required (as a last resort should planning solutions not be found) to Hart Warren Dunes through training	Potentially significant

Management Area		Policy Area		International Sites	Potential Issues	Likely Effect
				Durham Coast SAC Castle Eden Dene SAC	of Crimdon Beck outfall; could influence dune habitat.	
		11.2	North Sands		Proposed policy of Hold the Line. May result in short-term coastal squeeze and loss of SPA foreshore.	Potentially Significant
		11.3	Headland		Proposed policy of Hold the Line. May result in loss of rocky foreshore.	Potentially Significant
MA12	Hartlepool Bay	12.1	Hartlepool	Teessmouth and Cleveland Coast SPA  Teessmouth and Cleveland Coast Ramsar	Proposed policy of Hold the Line.	Potentially Significant
		12.2	Seaton Carew north		Potential increase to existing scour and / or wave action to Hartlepool Headland, i.e. potential losses of rocky foreshore habitat.	
MA13	Tees Bay	13.1	Seaton Carew		Policy of Hold the Line to Seaton Carew proposed, i.e. hold the line up to the point where SPA and Ramsar designation begins (providing protection to Seaton Carew).  As such no adverse effects are perceived upon the designated dune habitat.	None
			13.2		Seaton Sands	Policy of No Active Intervention proposed. Allowing natural roll back of the Seaton Sands Dunes.  As such, Ramsar and SPA dune habitat will only be subject to natural change.
		13.3	North Gare		Policy of Hold the Line proposed, i.e. maintaining the North Gare breakwater.  No adverse effect anticipated upon the adjacent dune habitat.	Potentially significant
			13.4		North Gare Sands	A policy of No Active Intervention in the short-term proposed, with retreat of defences in the medium and longer-term.

Management Area		Policy Area		International Sites	Potential Issues	Likely Effect
					As such, Ramsar and SPA dune habitat will only be subject to natural change.	
		13.5	Bran Sands		Policy of No Active Intervention proposed. Allowing natural development of Bran Sands.	Potentially significant
		13.6	South Gare		As such, Ramsar and SPA dune habitat will only be subject to natural change.	
					Policy of Hold the Line proposed, i.e. maintaining the South Gare breakwater.	Potentially significant
		13.7	Coatham Sands		Policy of No Active Intervention proposed. Allowing natural development of Coatham Sands.	Potentially significant
					As such, Ramsar and SPA dune habitat will only be subject to natural change	
MA14	Coatham and Redcar	14.1	Coatham East		Policy of Hold the Line proposed, maintaining defence of the Redcar frontage, but with potential loss of sand foreshore.	Potentially significant
		14.2	Redcar			
		14.3	Redcar East			
MA15	Marske and Saltburn Sands	15.1	Red Howles	None	None	None
		15.2	Marske			
		15.3	Marske Sands			
		15.4	Saltburn			
MA16	Huntcliffe	16.1	Saltburn / Huntcliff			
MA17	Skinningrove	17.1	Cattersty Sands			
		17.2	Skinningrove			
		17.3	Hummersea			
MA18	Boulby	18.1	Boulby			
MA19	Cowbar and Staithes	19.1	Cowbar Cottages			
		19.2	Cowbar Cliffs			
		19.3	Staithes			
MA20	Staithes to Runswick Bay	20.1	Old Nab			
		20.2	Port Mulgrave			
		20.3	Lingrow			
MA21	Runswick Bay to	21.1	Runswick Village			

Management Area		Policy Area		International Sites	Potential Issues	Likely Effect
	Sandsend Ness	21.2	Runswick Bay			
		21.3	Kettleness			
MA22	Sandsend Wyke	22.1	Sandsend cliffs			
		22.2	Sandsend Village			
		22.3	Coastal road			
		22.4	Uppang Beach			
MA23	Whitby	23.1	Uppang Beck			
		23.2	West cliff			
		23.3	Harbour and Abbey cliffs			
MA24	Whitby to Saltwick Nab	24.1	The Stray			
MA25	Saltwick Nab to Hundale Point (Robin Hoods Bay)	25.1	Saltwick to Hundale	Beast Cliff-Whitby (Robin Hood's Bay) SAC	A policy of No Active Intervention proposed (with the exception of the village of Robin Hood's Bay that is already protected).  As such, the SAC habitats would only be subject to natural change.	Potentially significant
		25.2	Village of Robin Hood's Bay			
MA26	Hundale Point to Scalby Ness	26.1	Burniston	None	None	None
MA27	Scarborough North Bay and Castle Cliff	27.1	North Bay			
		27.2	Castle Headland			
MA28	Scarborough South Sands and Harbour	28.1	Harbour			
		28.2	Foreshore Road			
		28.3	Spa and access			
		28.4	Cliff Gardens			
		28.5	South Cliffs			
MA29	Black Rocks to Filey Brigg	29.1	Cornelian Bay			
		29.2	Cayton Bay			
		29.3	Cayton Bay Access			
MA30	Filey	30.1	Gristhorpe Cliff			
		30.2	North Cliff			
MA31	South Filey Bay	31.1	North of Filey			
		31.2	Filey			

Management Area		Policy Area		International Sites	Potential Issues	Likely Effect
		31.3	Muston Sands			
MA32	Muston Sands to Speeton Cliffs	32.1	Hunmanby Sands			
		32.2	Hunmanby Gap			
		32.3	Reighton			
MA33	Muston Sands to Flamborough Head	33.1	Speeton	Flamborough Head and Bempton Cliffs SPA  Flamborough Head SAC	A policy of No Active Intervention proposed, other than along limited areas (North Landing and Flamborough) where a policy of hold the line would not be precluded.  As such, the SAC and SPA habitats would only be subject to natural change.	Potentially significant
		33.2	Flamborough Head			
		33.3	North Landing			
		33.4	Flamborough			