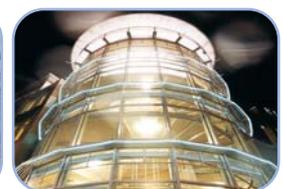


SCOTT WILSON LIMITED

**City of Sunderland Local Development Framework (LDF)
Core Strategy Preferred Option**

**H a b i t a t s R e g u l a t i o n s
A s s e s s m e n t :
A p p r o p r i a t e A s s e s s m e n t**

February 2010





Scott Wilson Limited

Working with clients to achieve better environments and to ensure that the capabilities of future generations are protected.

City of Sunderland Local Development Framework (LDF) Core Strategy

Habitats Regulations Assessment - Appropriate Assessment

February 2010

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1. INTRODUCTION

1.1 Background

- 1.1.1 Sunderland City Council is considering options for the regeneration of Sunderland City Centre and its surrounding sub-areas as part of the LDF.
- 1.1.2 As part of the preparation process the Council is required to undertake a Habitats Regulations Assessment (HRA) to assess the need for an Appropriate Assessment of the LDF. This considers the potential impacts of the spatial plans of the regeneration options on the sites considered to be of European importance¹ for nature conservation.
- 1.1.3 Scott Wilson was appointed in August 2007 to assist Sunderland City Council in assessing the need for appropriate assessment (screening). During the intervening period the LDF Core Strategy has evolved and is now at consultation stage.
- 1.1.4 The screening report (August 2009) assessed 20 thematic policies of the 2007 Preferred Options. This report (February 2010) has been updated to address the revised Core Strategy Preferred Option and the ten revised supporting policies that have been adopted by Sunderland City Council in March 2010².
- 1.1.5 The policies are assessed in Table 4. Further review of possible “in combination” effects of this plan with other plans is provided in Table 5. Possible “in combination” effects on the Durham SAC and Northumbria Coast SPA/Ramsar site is provided in Tables 6 and 7 respectively.
- 1.1.6 Much of the content of this report has been retained from the screening report where it remains applicable.

1.2 This Report

- 1.2.1 This report explains how Sunderland City Council has determined whether the regeneration strategy is likely to have a significant effect upon nature conservation sites considered to be of European importance. It also identifies whether a more detailed consideration of the significance of impacts is necessary.
- 1.2.2 The purpose of this report is to:
- ensure that Sunderland City council complies with the requirements of the Habitats Directive 92/43/EEC as implemented by the Conservation (Natural habitats, &c) Regulations 1994 (as amended);
 - identify any policies or proposals that are likely alone, or in combination with other policies or proposals, to have a significant effect on sites of European importance (stage 1);
 - identify whether further (stage 2) appropriate assessment is required

¹ Sites considered to be of European importance are those designated as Special Areas of Conservation and Special Protection Areas. Sites designated as Ramsar sites are also usually treated as being of European importance.

² Anon (2010). Local Development Framework Document Core Strategy Revised Preferred Options March 2010. Sunderland City Council, Sunderland.

- 1.2.3 This report will be issued to Natural England for formal consultation, as required by the Conservation Regulations. Other interested bodies are also invited to provide comments on the issues raised in this report.

1.3 Sustainability Appraisal and Strategic Environmental Assessment

1.3.1 Under the Planning and Compulsory Purchase Act 2004, LDFs must undergo a Sustainability Appraisal (SA). SA involves the identification and evaluation of the plan's impacts on economic, social and environmental objectives – the three elements of sustainable development. The SA process incorporates the requirements of a new European law on the environmental assessment of plans (referred to as the Strategic Environmental Assessment Directive). A separate Strategic Environmental Assessment (SEA) and Sustainability Appraisal (SA) have been undertaken of the LDF Core Strategy. This has been undertaken in parallel with the HRA, and information from the SEA/SA has informed the HRA screening and vice versa.

1.4 The Screening Process

1.4.1 Scott Wilson became engaged in the development of the Sunderland Core Strategy at the Issues and Options stage, which enabled it to identify potential risks and conflicts between particular options and European Sites, and to suggest mechanisms or policy considerations that would enable such impacts to be avoided.

1.4.2 The need for Appropriate Assessment has been determined during evolution of the Preferred Option policies as these were determined. The procedure followed for the determination was:

- A first draft report was produced that identified which European Sites are susceptible to aspects of the Core Strategy and which policies are likely to lead to a significant adverse effect on those sites – this is the screening exercise;
- If it is not possible to determine at this stage that the policies are unlikely to lead to significant adverse effects, recommendations for further alterations to policies or other measures that will rectify the situation will be made;
- The report is then circulated to Sunderland City council for consideration;
- After an approximate 2-week period, the report will be circulated to key consultees (particularly Natural England, the Environment Agency, RSPB, and Durham Bird Club) for their consideration. It will usually take at least one month for Natural England to supply comments on the screening exercise;
- Following receipt of comments, a stage 2 Appropriate Assessment report may be prepared and circulated to Natural England for Final comment.

1.4.3 The timing of the consultation on the LDF is set out in the revised preferred options report issued in March 2010.³

1.5 Structure of this document

1.5.1 This document comprises the following sections:

- Section 2 defines Appropriate Assessment and explains what it entails;
- Section 3 sets out the methodology used for the screening process;
- Section 4 describes the European Sites potentially affected by the LDF Core strategy and includes details of their conservation importance and identifies the types of

³ Sunderland City Council. March 2010. Core Strategy. Local Development Framework Revised Preferred Options.

activity likely to significantly affect the qualifying interest features of the sites (site sensitivity);

- Section 5 analyses the LDF Core Strategy and identifies those components that might affect the sites identified in Section 4;
- Section 6 identifies other projects and plans that may contribute to “in combination” effects;
- Section 7 draws together the initial conclusions of the assessment of the LDF Core Strategy (section 5) and other plans (section 6) to identify those aspects that might have a significant effect on European Sites, and so should be subject to a more detailed assessment for their impact on site integrity;
- Section 8 sets out conclusions and next steps

2. APPROPRIATE ASSESSMENT

2.1 What is Appropriate Assessment?

- 2.1.1 Appropriate Assessment provides an assessment of the affect of a plan or project, alone or in combination with other plans or projects, on sites considered to be of European importance for their nature conservation value.
- 2.1.2 European Sites are areas identified as Special Protection Areas (SPAs), designated under the Birds Directive, and Special Areas of Conservation (SACs) designated under the Habitats Directive. These sites collectively contribute to the Natura 2000 network of protected sites. Planning Policy Statement 9 (PPS9) also recommends that sites designated under the Ramsar convention should be afforded the same level of consideration as European Sites. In practice most Ramsar sites are also SPAs.
- 2.1.3 Whilst many European Sites overlap with Sites of Special Scientific Interest (SSSIs), Appropriate Assessment relates only to the qualifying interest features of the European Site.
- 2.1.4 APPROPRIATE ASSESSMENT is only considered for plans that are not connected with or necessary to the management of European Sites. The LDF Core Strategy is not connected with or necessary to the management of any European Sites, and hence under Article 6 (3) of the Habitats Directive, requires consideration for its likely effects on such sites.
- 2.1.5 The ‘assessment’ proper is a *statement* that says whether the plan does, or does not, affect the integrity of a European Site⁴. But, the *process* of determining whether or not the plan will affect European Sites is also commonly referred to as ‘appropriate assessment’. To avoid this confusion some organisations refer to the process as the “Habitat Regulations Assessment”, limiting the term “Appropriate Assessment” to assessing the impact of a policy/plan upon the integrity of a site (see Stage 2, Para 2.4.1. below).

2.2 Legal basis for Appropriate Assessment

- 2.2.1 The requirement for APPROPRIATE ASSESSMENT is established through Article 6(3) of the Habitats Directive:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

- 2.2.2. The European Court of Justice ruled, in October 2005, that the UK had failed to correctly transpose the provisions of Articles 6(3) and 6(4) (which addressed issues connected to

⁴ Scott Wilson *et al.* 2006

alternative solutions, the test of imperative reasons of overriding public interest and compensatory measures) into national law. Section 85 of The Conservation (Natural habitats, &c.) (Amendment) Regulations 2007 addresses this issue.

2.2.3 As a result of the European ruling, the requirement to undertake an Appropriate Assessment must be considered for any policy, project or plan that may have a significant effect on one or more European Sites and which is not necessary for the management of that site.

2.3 What is a Significant Effect?

2.3.1 An Appropriate Assessment is required where *significant effects* upon the notified qualifying features of a European Site are likely. Significance is defined in terms of the designated interest features and conservation objectives of the site. English Nature guidance indicates that any effect that compromises a site's ability to support and sustain the features for which it has been designated is likely to be considered significant, excluding trivial or inconsequential effects⁵.

2.3.2 In determining the likely "significance" of an effect, the EC recommends considering "*the probability, of the impact; the duration, frequency and reversibility of the impact.*" (EC, 2000, page 35).

2.3.3 If it is not possible to clearly rule out a significant effect, based on objective information, then further assessment is required, in line with the precautionary principle. This view has been supported by recent European case law⁶. That is, it is necessary to demonstrate that significant effects are *not* likely.

2.4 Stages in the Habitats Regulations Assessment process

2.4.1 The Habitats Regulations Assessment process can be considered as comprising four main stages⁷:

- **Stage 1 – Screening:** The purpose of this stage is to identify whether the plan, either alone or in combination with other policies and plans, is likely to have an adverse effect on a European Site and hence requires to be considered in more detail at stage 2. This is usually a very coarse test.
- **Stage 2 – Appropriate Assessment:** At this stage the effects of the plan upon site integrity are determined. The purpose of this stage is to quantify the scale of impacts that are likely and to determine whether they will have a significant adverse impact on the reasons for which the site has been notified.
- **Stage 3 – Mitigation and alternative solutions.** The purpose of this stage is to identify ways of reducing any adverse impacts to a level where they will not affect the integrity of the site.
- **Stage 4 – Consideration of imperative reasons of over-riding public interest (IROPI):** Generally, only policies and plans that do not affect the integrity of a European Site are allowed to proceed. But under certain, limited circumstances,

⁵ English Nature. 1999. Habitats Regulation Guidance Note 3: The Determination of Likely Significant Effect under the Conservation (Natural Habitats &c) Regulations 1994

⁶ ECJ. 2004. Case C0127/02: landelijke Vereniging tot Behoud van de Waddenzee, Nederlandse Vereniging tot Bersherming van Vogels vs. Staatssecretaris van Landbouw, Natuurbeheer en Visserij (the Waddenzee ruling)

⁷The DCLG Guidance groups these actions into three tasks, combining stages 3 and 4 as a single item

(assessed using the IROPI test), a policy or plan may be allowed to proceed, providing adequate compensation is provided.

- 2.4.2 Plans should aim to avoid any adverse impacts on European Sites. This can best be achieved by identifying sources of possible impacts early in the planning process, and wording the plan to avoid these. Where adverse effects on European Sites are identified during the APPROPRIATE ASSESSMENT process, it is necessary to apply adequate mitigation measures to remove these. If no further mitigation can be applied, but adverse impacts are still likely, then the plan is rejected. At this point it may be necessary to consider alternative solutions or to consider compensatory measures to address the remaining adverse effects. There are strict rules under which compensation is allowed, including an absence of alternative solutions and the plan is required for imperative reasons of overriding public interest.
- 2.4.3 This report deals only with the first of these tasks, i.e. screening to determine whether significant effects are likely as a result of the LDF Core Strategy.

3. METHODS

3.1 Guidance

- 3.1.1 Case law and best practice of the application of Appropriate Assessment to Land Use plans is still evolving, and there is no single agreed approach. The methods used in this document are designed to be compliant with the draft guidance issued by the Department for Communities and Local Government (DCLG) (August 2006⁸) and “Assessment of plans and projects significantly affecting Natura 2000 sites” produced by the European Union⁹.
- 3.1.2 The approach is based on current best practice gleaned from a review of current Appropriate Assessment documents produced for a selection of regional spatial plans and has been informed by a variety of guidance including advice for local authorities prepared by Scott Wilson *et al*¹⁰, advice commissioned by Natural England¹¹, and advice published by the RSPB¹². A list of documents reviewed is contained in Appendix 1.

3.2 Approach

- 3.2.1 Neither the Habitats Directive nor the Habitats Regulations specify how the stages of Appropriate Assessment should be undertaken, or the depth of analysis of issues that is required; it must, however, be fit for purpose.
- 3.2.2 The DCLG (2006) draft guidance suggests that the comprehensiveness of the work should be “proportionate to the geographical scope of the option and the nature and extent of any effects identified.” It further states:

“An APPROPRIATE ASSESSMENT need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effect in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project.”

- 3.2.3 The assessment is limited to effects on the internationally important habitats and species for which the site is classified. However, there is differing opinion as to whether the assessment should only consider the effects on these habitats and species when they are present within the boundaries of the European Sites, or on these species wherever they occur within the plan area (see paragraphs 5.2 – 5.3).

3.3 Information Sources

- 3.3.1 Information to assist with the screening process and carried into this document was sought from internet sources (e.g. websites of the Joint Nature Conservation Committee, and Natural England), Natural England and Sunderland City Council. The screening exercise has also drawn on information obtained during the Appropriate Assessment of

⁸ Planning for the Protection of European sites: Appropriate Assessment. Guidance for Regional Spatial Strategies and Local Development Documents. DCLG (2006)

⁹ Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC European Communities, 2002.

¹⁰ Scott Wilson, Levett-Therivel, Treweek Environmental Consultants & Land Use Consultants. September 2006. Appropriate Assessment of plans

¹¹ *The assessment of regional spatial strategies and sub-regional strategies under the provisions of the Habitats Regulations Draft* – August 2006

¹² The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it. RSPB 2007

the UDP, Alteration No. 2 conducted in 2007. This included additional information on bird populations obtained from the website of the British Trust for Ornithology (BTO), and through consultation with the Durham Bird Club.

3.4 Identification of relevant European Sites

3.4.1 The purpose of the screening stage is to identify any European Sites that are likely to be adversely affected by the LDF Core strategy. This requires the identification of:

- those European Sites not affected (i.e. no further assessment required)
- European Sites for which there may be an effect, but modification or removal of a policy within the LDF Core Strategy would remove this effect and
- where an effect on a European Site(s) is likely and a more detailed, stage 2, Appropriate Assessment is required.

3.4.2 The location and interest features of European Sites within the vicinity¹³ of the plan area were identified using information provided by Natural England¹⁴, and information available from the Natural England website. Information about their current condition, and factors likely to affect the notified interest features of the site were also collated from data published on Natural England's website and from discussions with relevant staff within Natural England.

3.5 Assessment of Vulnerability to Effects

3.5.1 Following the identification of European Sites within the zone of influence of the Core Strategy, the conservation objectives for each site were reviewed to identify the types of activity that might influence their conservation status (Table 1). Information about the current condition of each feature was collated (Appendix 3), either from published information collected during Site Condition Monitoring exercises conducted by Natural England, or information on bird statistics collated by the JNCC and the British Trust for Ornithology.

3.6 Plan Analysis including identification of aspects of the LDF Core Strategy that might impact on European Sites

3.6.1 As noted in paragraph 1.4.1, consideration of likely impacts of the Core Strategy objectives and policies commenced at an early stage, so that where possible objectives and policies were developed to avoid the risk of impacts on European Sites. However, this report is based upon the Core Strategy Preferred Options report, which will be issued for public comment. This has enabled a further assessment as to the likelihood of policies within the plan (both alone and in combination) resulting in significant¹⁵ effects upon the qualifying features for which the European Sites have been designated. The policies are strategic, and this has required some interpretation as to how they may be implemented in practice and in practice the likely implications are unclear due to lack of specific development details at specific locations.

3.6.2 Further details of the evolution of the LDF Core Strategy preferred options can be found in a separate report¹⁶.

¹³ It is a requirement of the legislation that effects on European sites outside the boundary of the plan area should also be considered.

¹⁴ CD of relevant information to help inform Appropriate Assessments provided by Jenny Loring, Natural England

¹⁵ Significance is determined in relation to the specific features and environmental conditions within the European site (EC, 2000, P33)

¹⁶ Local Development Framework (LDF) Core Strategy – Preferred Option. March 2010.

- 3.6.3 The aim of plan analysis is to determine whether the LDF Core Strategy may affect the key environmental conditions that need to be maintained or improved in order to preserve the integrity of European Sites (Scott Wilson *et al.* 2006).
- 3.6.4 A key element of plan analysis is to identify any objectives or policies that may affect a European Site, as it is only after the competent authority (in this case Sunderland City Council) has ascertained that a plan will not adversely affect the integrity of a site that the plan can be approved. Integrity is defined by the European Commission as:
- “The integrity of a site is the coherence of the site’s ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified.”* It further states: *“a site can be described as having a high degree of integrity where the inherent potential for meeting site conservation objectives is realised, the capacity for self repair and self renewal under dynamic conditions is maintained, and a minimum of external management support is required.”*
- 3.6.5 Thus, whilst the focus of APPROPRIATE ASSESSMENT is upon ensuring the integrity of the features for which the site was designated, it is axiomatic that the ecological processes maintaining those interest features should also be considered.
- 3.6.6 Two different approaches to documenting plan analysis have been proposed. Tyldesley (2006) suggest focussing upon the policies included within plans, and grouping these into three different categories depending upon their likely effect upon European Sites¹⁷. By contrast, Scott Wilson *et al* (2006) advocates preparation of a matrix that summarises the types of effect that may arise from the plan in its totality upon the interest features of European Sites i.e. the interest features of each European Site form the focus of consideration. By comparing the types of effect against the vulnerabilities highlighted for the interest features of each site, it is possible to identify the types of activity that may impact upon them. It is also easier to combine the influence of other policies in plans which may act on these sites “in combination” with each other. A combined approach is used in this report.

3.7 “In Combination” Effects

- 3.7.1 Appropriate assessment considers the potential effects of a proposed plan alone and “in combination” with other plans and projects on one or more European Sites. The identity of plans that should be considered “in combination” with the LDF Core Strategy was informed by a review of the type of documents considered in APPROPRIATE ASSESSMENTS for other spatial plans, such as the Regional Spatial Strategy for the North East. Natural England was also consulted informally to identify additional documents of relevance.
- 3.7.2 New documents and plans are constantly being produced, and it may be that there are additional documents that should also be considered “in combination” with the LDF Core Strategy. It is hoped that any relevant additional documents will be identified through the consultation process.

¹⁷ policies that will have no effect on a European Site¹⁷; policies that could have a potential effect; and policies likely to have a significant effect

3.8 Consultation

- 3.8.1 The views of Natural England need to be taken into account when undertaking Appropriate Assessment. Natural England has been contacted informally asking for guidance on when and how they wish to be consulted on the emerging policies. It has advised that it wishes to concentrate efforts on the formal written consultations, which this document will contribute towards. Natural England has also been contacted for advice about other plans to review for “in combination” effects.
- 3.8.2 This document will be used for the formal consultation with Natural England and other bodies. It will also be distributed as part of the public consultation, providing a wider audience to provide their views on likely impacts upon European Sites, and to consider if all relevant policies and plans have been considered.

4 EUROPEAN SITES

4.1 Identification of European Sites

- 4.1.1 European Sites that lie within the plan boundary and European Sites that lie outwith the boundary, but within the possible zone of influence of any changes brought about by the plan, must be considered. No definitive buffer distance has been prescribed as the potential effects on a site are influenced by the reasons for which the site has been designated and the type of changes arising from the plan.
- 4.1.2 Five European Sites have been identified as lying within an area that may potentially be affected by the LDF Core Strategy. These are:
- Durham Coast Special Area of Conservation (SAC)
 - Northumbria Coast Special Protection Area (SPA) and Ramsar site
 - Thrislington Special Area of Conservation (SAC)
 - Castle Eden Dene Special Area of Conservation (SAC)
 - Teesmouth and Cleveland Coast Special Protection Area (SPA) and Ramsar site
- 4.1.3 Figure 1 shows the relative location of these sites to Sunderland, together with Figures 2 and 3 which show the proximity of the Durham SAC and Northumbria Coast SPA / Ramsar site to Sunderland (see Appendix 2).
- 4.1.4 Parts of both the Durham Coast SAC and the Northumbria Coast SPA sites lie within the Sunderland City boundary. These sites are fragmented, comprising discrete portions of the coast north and south of the Wear Estuary. Sections of the SAC and SPA/Ramsar site lie within 1 km and 2 km of the northern extent of the LDF boundary, and again within 1 km of the southern extent of this boundary.
- 4.1.5 The Durham Coast Site of Special Scientific Interest (SSSI) underpins both the SAC and SPA/Ramsar sites, although there are some differences in the boundary of the SAC and SPA. Principally, the area known as Parson's Rocks, which lies just north of Sunderland Port is included within the SPA boundary, but is excluded from the SAC boundary (see Figures in Appendix 2).
- 4.1.6 Natural England has sub-divided the Durham Coast SSSI (and hence the Durham Coast SAC & Northumbria Coast SPA/Ramsar sites) into a number of management units. Five of these units are considered to lie within the influence of the LDF Core Strategy (see paragraph 4.3.2). Three of these units are considered to be particularly important for their purple sandpiper populations, one for its coastal cliffs and rocky foreshore and one for its grassland communities.
- 4.1.7 Thrislington SAC is located within the Durham County boundary approximately 12 km from the southern edge of the Sunderland City boundary. This inland site is contained within a single boundary and covers 24 ha.
- 4.1.8 Natural England has sub-divided the Thrislington SSSI (and hence the Thrislington SAC) into two management units. Both of which are considered particularly important calcareous grassland habitats.

4.1.9 Castle Eden Dene SAC is located within the Durham County approximately 8 km from the southern edge of the Sunderland City Boundary, covering an area of 189 ha. Natural England has sub-divided the Castle Eden Dene SSSI (and hence the Castle Eden Dene SAC) into eighteen management units. This site is considered of particular importance for its broadleaved mixed and lowland yew woodland and for its neutral lowland grassland habitat.

4.1.10 Another site considered for its potential to be effected by the proposed regeneration of Sunderland City and its surrounding boroughs is Teesmouth and Cleveland Coast SPA. This SPA lies approximately 23km from the Sunderland City boundary and covers an area of 1247 ha. This site is particularly important for its breeding sandwich tern and little tern populations and its over-wintering wader populations.

4.2 Qualifying Features

4.2.1 A summary of the qualifying interest features for the three SAC sites and two SPA/Ramsar sites are set out in Table 1; with further details in Appendix 3. The interest features are:

- Durham Coast SAC – Vegetated sea cliffs
- Northumbria Coast SPA and Ramsar site – Breeding little tern *Sterna albifrons*, wintering turnstone *Arenaria interpres* and wintering purple sandpiper *Calidris maritima*.
- Thrislington SAC - Calcareous grassland
- Castle Eden Dene SAC – Broad-leaved mixed and yew woodland
- Teesmouth and Cleveland Coast SPA and Ramsar site – Breeding sandwich tern, little tern, wintering knot *Calidris canuta*, redshank *Tringa totanus* and waterbird assemblage.

4.2.2 Table 1 also includes details of the features that Natural England considers are important to maintain the interest of the sites. These have been extracted from a variety of sources¹⁸.

4.3 Current status and trends in qualifying features

4.3.1. The likelihood of a significant adverse impact resulting from a policy contained within the Core Strategy depends on the designated interest features of a site, their current condition and their sensitivity to changes likely to arise as a result of the implementation of the policies.

4.3.2 Table 1 includes details of potential hazards to notified interest features, whilst Table 2 includes details of the current condition of features and comments on factors affecting the current condition. A summary of these is provided below.

4.3.3 Durham Coast SAC

¹⁸ e.g. "Northumbria Coast European marine site. English Nature's advice given under Regulation 33(2) of the Conservation (Natural Habitats &c.) Regulations 1994", published information on management of the Durham Coast SSSI (which underpins the SAC/SPA)¹⁸, results of site condition monitoring contained on the Natural England¹⁸ website, generic information related to habitat management on the JNCC website or are based on the consultant's interpretation of likely risk to the interest features. (English Nature, 6 November 2000)

4.3.3.1 Based on the management statement published by Natural England and the monitoring objectives for coastal cliffs published by the Joint Nature Conservation Committee (JNCC, 2004) (see Appendix 3), the qualifying features of the Durham Coast SAC are vulnerable to:

- loss of habitat, e.g. as a result of natural erosion processes being constrained;
- loss of habitat, particularly related to changes in vegetation composition and structure, e.g. as a result of changes in grazing, fertiliser application and/or trampling pressure from people and wildlife.

4.3.3.2 Within the area likely to be influenced by the LDF the grassland habitats are considered to be in unfavourable condition as a result of fire and dumping of materials.

4.3.3.3 No details of trends in the condition of the Durham Coast SAC were provided by Natural England.

4.3.4 Northumbria Coast SPA/Ramsar

4.3.4.1 Sources of threats to the breeding little tern colonies include habitat loss and disturbance at the breeding areas, and declines in food supply. Key threats to the wintering species i.e. turnstone and purple sandpiper are identified as the potential loss of feeding habitat (as a result of removal or smothering of the habitat), and non-physical disturbance through noise or visual disturbance (e.g. from dog walking).

4.3.4.2 The main breeding area for little tern, Low Newton, ca. 40 miles to the North, is considered to be beyond the influence of the LDF Core Strategy.

4.3.4.3 Rocky shores with associated boulder and cobble beaches are important feeding areas for purple sandpiper and turnstone. Three of the five management units located within the zone of influence of the Core Strategy are considered to be important for purple sandpiper, and are considered to be in favourable condition for this feature¹⁹.

4.3.4.4 High tide roost sites are known to be important for both turnstone and purple sandpiper. Advice from the Durham Bird Club²⁰ is that the South Pier of Sunderland Harbour is a long-established and important roost site for these species (and other wading birds). The south dock area is also used for feeding by these species. A site on the River Wear upstream of Alexandra Bridge (NZ374581) is used on an infrequent basis by turnstone.

4.3.4.5 Bird Survey reports for the SPA (BTO, 2005) suggest that purple sandpiper numbers are in decline within the Northumbria Coast SPA, at a rate that is greater than national trends for declines in this species. Turnstone numbers may also be decreasing, but only in line with national trends. No specific reasons for these trends are identified within the BTO report.

4.3.5 Thrislington SAC

4.3.5.1 Thrislington SAC is considered to be an example of one of the most important stands of calcareous grassland in Britain and it is particularly important as this habitat is nationally

¹⁹ Extracted from Condition of SSSI units included on Natural England's website & updated 2nd October 2007

²⁰ Mark Newsome, *pers comm*

scarce in Britain. Threats to the designated features of Thrislington SAC include over grazing and eutrophication. At present, this site is currently in a favourable condition.

4.3.6 Castle Eden Dene SAC

4.3.6.1 This site represents the most extensive northerly occurrence of yew *Taxus baccata* woods in the UK. Extensive yew woodland is found in association with ash-elm woodland and it is the only site selected for yew woodland on magnesium limestone in the north-east England. Annex 1 habitat comprises semi-natural dry grasslands and scrubland rock facies: on calcareous substrates *Festuco-Brometalia*.

4.3.7 Teesmouth and Cleveland Coast SPA

4.3.7.1 Sources of threats to the sandwich tern and little tern colonies include habitat loss and disturbance at breeding sites, and declines in food supply. Key threats to the wintering species, i.e. knot and redshank are identified as potential loss of feeding habitat (as a result of removal or smothering of the habitat), and non-physical disturbance through noise and visual disturbance (e.g. dog walking).

4.3.7.2 The site may also be vulnerable to incursion of coarse marine sediments into the estuary and the eutrophication of sheltered mudflats which would affect the invertebrate density of the site and therefore the feeding success of the birds using this site.

4.4 Site Sensitivities

4.4.1 Table 1 identifies the key environmental conditions required to maintain the integrity of the European Sites. These have been based on the Favourable Condition Tables (see Appendix 3). The key areas where sites are vulnerable to impacts arise from coastal processes and hydrodynamic regime, direct damage of habitats (both intentional and unintentional), disturbance and pollution, and these are now considered in more detail.

4.4.2 Coastal processes and hydrodynamic regime

4.4.2.1 Coastal processes (including erosion and accretion) and the hydrodynamic regimes are important in maintaining natural erosional processes within the Durham Coast SAC and maintaining sediment transport mechanisms (and hence the availability of suitable habitat) within the Northumbria Coast SPA and Teesmouth and Cleveland Coast SPA. Policies that result in changes to the hydrodynamic regime would thus have a potential impact upon both European Sites.

4.4.2.2 The types of policies that may, therefore, have a significant effect include measures that introduce or alter dredging regimes, policies that influence the management of the coastline (e.g. sea defences or changing land use), or other policies that may influence sediment availability.

4.4.3 Direct damage to habitats

4.4.3.1 Habitats may be damaged as a result of dumping, removal of land or burning. Natural England considers that part of the Durham Coast SAC is currently in unfavourable condition due to dumping of materials and burning. Both the Thrislington SAC and Castle Eden Dene SAC are currently in favourable condition, however these site may be vulnerable to unintentional changes in habitat quality, caused, for example, by changes

in grazing or trampling pressure. Such changes may arise as a result in changes in the number of people visiting these sites.

4.4.4 Disturbance to qualifying features

- 4.4.4.1 Many bird species, including coastal species, are vulnerable to disturbance, particularly from people walking with uncontrolled dogs. The disturbance can limit the time available for birds to feed, reducing their energy intake. Alternatively, disturbance whilst roosting requires birds to use extra energy at a time of year when opportunities for feeding may be limited by short day length. Disturbance of nesting birds increases the chances of other species preying the eggs, and reducing breeding success.
- 4.4.4.2 Only one of the notified interest features of the Northumbria Coast SPA relates to nesting bird populations. The closest nesting little tern *Sternula albifrons* colony is located ca.60 km away from the boundary of the plan area and is outwith the zone of influence of the Core Strategy.
- 4.4.4.3 There are also breeding populations of little tern at the Teesmouth and Cleveland Coast SPA. However, this breeding site is also some ca.20 km south of the boundary of the plan area at Crimdon Dean, north of Hartlepool, and is outwith the zone of influence of the Core Strategy.
- 4.4.4.4 Disturbance to the wintering wader populations could arise from two sources; increased recreational pressure within the Northumbria Coast SPA affecting habitats and increased disturbance to the qualifying (bird) features within or outwith the boundary of the SPA. Disturbance may affect both feeding areas and high tide roost sites.

4.4.5 Pollution

- 4.4.5.1 Changes in coastal water quality could affect the availability of food for bird species and the clarity of the water. Features of plans that could, potentially cause changes to water quality include major new discharges or pollution events. Significant impacts upon water quality of the River Wear (and hence potentially upon the SPA) are unlikely because discharges to the river arising from housing development, run-off etc. will require consents from the Environment Agency to ensure that water quality is maintained. This element has not been considered further.
- 4.4.5.2 The Teesmouth and Cleveland Coast SPA is vulnerable to eutrophication of sediments in its sheltered mudflats which could result in the spread of dense *Enteromorpha* beds. The smothering algal growth would lead to decreased densities of invertebrate numbers and would impact on the feeding success of waterfowl using this site. Eutrophication could arise from agricultural run-off and increased volumes of discharged treated effluent into the coastal site.

4.4.6 Air Quality

- 4.4.6.1 Changes in air quality as a result of economic and housing growth could potentially impact on the European Sites by having a negative effect on the vegetative structure of the designated features.

5 PLAN ANALYSIS

5.1 Introduction

- 5.1.1 This section investigates the objectives and policies of the LDF Core Strategy to identify any aspects that might influence the environmental conditions required to maintain the integrity of European Sites. The aim has been to provide a clear basis for excluding impacts on sites.
- 5.1.2 As noted in paragraph 2.1.1 the key purpose of the APPROPRIATE ASSESSMENT is to identify whether the plan (either alone, or in combination) will adversely affect the integrity of the European Sites. What is unclear in the Habitats Directive whether the assessment should consider effects on the qualifying bird species whether they occur within or outwith the SPA. However, English Nature's (Natural England) Habitats Regulations Guidance Note 1 states that the plan or project does not have to be within the designated area and that significant effects can occur some distance away. It follows that as many birds are highly mobile significant effects on SPA bird populations could occur outwith the designated site boundary and thus qualifying bird species which occur within a reasonable distance of the European Site should be assessed accordingly.
- 5.1.3 This was confirmed by Natural England during consultation for the APPROPRIATE ASSESSMENT for the UDP Alteration No. 2. Natural England has advised that the effects of Alteration No. 2 on the qualifying birds of the Northumbria Coast SPA should be considered wherever those birds occur within the area of the plan (i.e. effects should not just be considered within the SPA boundary).

5.2 Components of the LDF Core Strategy

- 5.2.1 The LDF Core Strategy sets out the overarching strategic planning framework for the development of Sunderland up to 2026 and will, in time, replace the existing Unitary Development Plan (UDP) adopted in 1998, and its partial revision Alteration No.2, adopted in 2007. (The UDP Alteration No. 2 was also subject to an APPROPRIATE ASSESSMENT).
- 5.2.2 The Core Strategy comprises a series of key objectives and supporting policies (See Appendix 4 for a full list).
- 5.2.3 The Core strategy needs to be considered in its entirety, and not as a series of disconnected objectives and policies. Several of the objectives of the Core Strategy are concerned with maintaining and improving the biodiversity features of Sunderland, including the status of the SAC and SPA. The requirements of these objectives and policies will go some way to avoiding and mitigating potential direct adverse effects on the SAC and SPA, but may not address the indirect and secondary effects on sites that may result from other policies and objectives (e.g. in terms of increased access to the coast and implications for disturbance of birds.)

5.3 Preferred Option

- 5.5.1 The preferred development strategy for Sunderland is a city-wide approach based on sub-area spatial requirements.

5.3.1 Analysis of Preferred Objectives

5.3.1.1 The LDF Core Strategy objectives are examined in Table 3. Based on this preliminary assessment, there are five objectives for which possible significant impacts upon European Sites cannot be ruled out at this stage. These are:

- **Population growth** – an increase in population size is likely to lead to an increased number of people taking part in outdoor recreation, and a potential for increased damage and disturbance to the SAC and SPA sites.
- **Carbon emissions and energy** – the nature and location of renewable energy projects has the potential to have impacts upon the notified bird interests of the SPA's
- **Flooding & climate change** – measures to protect against sea level rise, such as coastal defences, have the potential to affect the availability of suitable habitat in the SPA. (It is noted that sea-level rise may also have an adverse effect).
- **Improving neighbourhoods** – there is the potential for increased recreational pressure and disturbance to SAC and SPA sites.
- **Green infrastructure** – there is potential for increased recreational pressure and disturbance to SAC and SPA sites, e.g. the proposed National Coastal Footpath.

5.3.2 Analysis of Preferred Policies

5.3.2.1 Table 4 looks at the policies that will be used to implement the objectives and assesses their potential for significant effects upon the European Sites. The policies are strategic in nature and it has been necessary to make some interpretation of the ways in which they may be implemented in order to assess the potential for impacts.

5.3.2.2 Policies that do not provide for development or change that could affect a European Site, for example, policies relating to improving the quality of the natural environment, including biodiversity are unlikely to have significant impacts upon European Sites. Whilst it is recognised that there can be conflicts between different aspects of the environment, e.g. enhancing the landscape quality of an area may affect biodiversity, such issues are generally better dealt with on a case by case basis.

5.3.2.3 In general terms, some of the objectives and policies will promote coastal development and increased recreational activity and/or access to the coastal zone. This has the potential to result in increased human disturbance. This in turn can lead to greater risks of coastal erosion, damage to habitats and disturbance of roosting and feeding birds if not adequately managed.

5.3.2.4 However, it is concluded here that it cannot be proven that the ten core strategy policies in alone or in combination will result in a significant effect on European Sites.

6. OTHER PLANS AND PROJECTS CONTRIBUTING TO “IN COMBINATION” EFFECTS

- 6.1 The purpose of the assessment of “in combination” effects of the Core Strategy with other plans is to consider the combined effects of impacts that can be reasonably foreseen from other proposals and background changes.
- 6.2 The current condition of the European Sites was summarised in section 4.3.
- 6.3 The following documents have been reviewed:
- Shoreline Management Plan 2 River Tyne to Flamborough Head
 - Wear Catchment Flood Management Plan (Scoping phase August 2005)
 - Local Transport Plan Tyne & Wear 2006 – 2011
 - Regional Planning Guidance for the North East (RPG1), November 2002
 - “Leading the way” Regional Economic strategy 2006 – 2016
 - The North East England Regional Housing Strategy 2007
 - North East Regional Renewable Energy Strategy, March 2005
 - Rural Action Plan, 2002
 - North East Tourism Strategy 2005-2010
 - Emerging Regional Spatial Strategy for the North East
 - LDF Core Strategy Draft preferred options for Newcastle City Council
 - LDF Core strategy issues and options report for Chester-le-street
 - County Durham structure plan saved policies
 - District of Easington LDF (evolving papers)
 - City of Durham Development Control policies preferred options, LDF (evolving policies)
 - South Tyneside LDF Core Strategy, adopted June 2007
 - North Tyneside LDF Core Strategy Options and Issues report (policies not yet available on website)
 - Northumbria River Basin District Management Plan (draft)
- 6.4 Appropriate Assessment was undertaken on some of these plans in their own right at the time they were prepared (e.g. the Shoreline Management Plan), whilst others, such as the LDF Core policies that are being developed for City of Durham, Newcastle, Easington and Chester-le-street, have not published Appropriate Assessment at this time.
- 6.5 Table 5 sets out the proposals within these plans that could contribute to “in combination” effects on European Sites. Five of these plans contain or may contain (including the developing policies of neighbouring local authorities) policies/proposals, which at this stage cannot be ruled out from potentially having significant “in combination” effects on European Sites. These are:
- Local Transport Plan Tyne & Wear 2006-2011
 - “Leading the way” Regional Economic Strategy, March 2005
 - North East Tourism Strategy 2005-2010
 - City of Durham Development Control policies preferred options, LDF (evolving policies)

- North Tyneside LDF Core Strategy Options and Issues report (policies not yet available on website)

7. POLICIES THAT MAY REQUIRE FURTHER ASSESSMENT

- 7.1 Section 5 identified five objectives within the Sunderland LDF Core Strategy that could potentially have an “in combination” effect on the two European Sites, whilst Section 6 identified five other plans, which had the potential to act “in combination” with the LDF Core Strategy to have effects on the two European Sites. These initial views have been re-considered in the light of the mitigating effects of other core strategy policies (e.g. those which include strong elements of protected site, habitat and biodiversity protection). Tables 6 and 7 present the conclusions of this analysis for the Durham Coast SAC and Northumbria Coast SPA/Ramsar site respectively.
- 7.2 The analysis in section 6 suggested that there was a possible risk of impacts on coastal processes as a result of proposals in the Shoreline Management Plan (SMP). However, the SMP has been subject to a separate Appropriate Assessment, and as none of the policies in the LDF Core Strategy are anticipated to act on the coastal processes affecting the European Sites, this aspect will not be considered further.
- 7.3 Policies within the County Durham or the North Tyneside LDF Core strategies were not available to review during the screening exercise.

7.4 Durham Coast SAC

- 7.4.1 The sensitivity of the Durham Coast SAC to different types of impacts/disturbance were summarised in section 4.3.3. Habitat damage as a result of dumping of materials, burning, and potentially from changes in trampling pressure were identified as a concern at the site, and parts of the SAC are currently considered to be in unfavourable condition due to direct damage and burning.
- 7.4.2 The analysis of the policies in the LDF Core Strategy, and other plans, has identified that several aspects of these plans and policies could give rise to increased access to the coast (e.g. as a result of improved road links, and increases in local population size), which has a potential increased risk of increased habitat damage or disturbance. These aspects should be explored further as part of an appropriate assessment (stage 2).

7.5 Northumbria Coast SPA/Ramsar site

- 7.5.1 The sensitivity of the Northumbria Coast SPA/Ramsar site to different types of impacts/disturbance were summarised in section 4.3.4. Disturbance to purple sandpiper and turnstone feeding areas and high tide roosting sites during the winter months was identified as a particular sensitivity.
- 7.5.2 The analysis of the policies in the LDF Core Strategy, and other plans, has identified that several aspects of these plans and policies could give rise to increased access to the coast (e.g. as a result of improved road links, and increases in local population size), which has a potential increased risk of disturbance to the notified bird interest of the site. These aspects should be explored further as part of an appropriate assessment (stage 2).

8. CONCLUSIONS AND RECOMMENDATIONS

- 8.1 Of the five European Sites originally screened, three (Tees and Cleveland Coast SPA, Thrislington SAC and Castle Eden SAC) are not considered to be at risk of significant effects and have been screened out from further assessment. Two sites, Durham Coast SAC and Northumbria Coast SPA/Ramsar have been assessed further for possible significant adverse effects of the Sunderland LDF Core Strategy policies.
- 8.2 It is considered that at the present strategic level of analysis none of the LDF Core Strategy policies on their own is likely to result in significant adverse effects on the two adjacent European Sites and therefore do not require stage 2 appropriate assessment in this respect. This is because embedded environmental protection policies within the Core Strategy will act as mitigation to counteract potential adverse effects.
- 8.3 However, given the uncertainties about the exact details such as most of the actual development sites and construction plans of developments likely to occur under the policies, a precautionary approach should be adopted by Sunderland City Council with careful consideration given to the requirement for screening for appropriate assessment for individual developments, coastal access initiatives or strategies such as the Seafront Strategy, as necessary. This approach has already been adopted for the masterplans for Marine Walk and Seaburn.
- 8.4 The likelihood of developments impacting on the European Sites by facilitating easier or additional access or increasing number of visitors to the coast (changes in numbers and location of visits, and how this relates to the location of the SAC and SPA qualifying features) will need to be analysed on a case by case basis and looked at in combination with other proposed projects.
- 8.5 Data deficiencies present constraints on the assessment of likely effects on European sites and of human disturbance on SPA qualifying species from proposed developments that may occur under the Core Strategy policies. For example, the lack of baseline data on the existing levels of recreational activities and disturbance along the coastal zone in combination with insufficient detail on the local scale distribution and use of the coastal habitats by purple sandpiper and turnstone means that the magnitude and therefore significance of likely effects are difficult to assess at this stage. This may require addressing by conducting specific studies in some circumstances, in order to make an appropriate assessment of likely effects of specific developments along the coastal sections of Sunderland both within and outwith the designated sites.
- 8.6 Based on the present analysis the likely “in combination” effects of the core strategy policies with the following plans cannot be ruled out at this stage, either because the present level of detail and analysis precludes this or because the relevant documents have not been published:
- Local Transport Plan Tyne & Wear 2006-2011
 - “Leading the way” Regional Economic Strategy 2006-2016
 - North East Tourism Strategy 2005-2010
 - Durham County LDF Core Strategy
 - North Tyneside LDF Core Strategy

- 8.7 The evolving policies of the Durham County LDF Core Strategy and the North Tyneside LDF Core Strategy will need to be reviewed as they become available.
- 8.8 This document will be issued to Natural England (and other interested parties) for formal comment.

8.9 In particular, opinions on the following issues would be useful:

- Have all the relevant plans been identified for consideration of “in combination” effects?
- This report has identified issues relating to increased/improved access to the coast as the main issue to be addressed by the APPROPRIATE ASSESSMENT, and in particular how access may affect habitat quality in the SAC and disturbance of the bird interest of the SPA. Are there other issues that should also be addressed?
- What information exists to enable quantification of existing visitor numbers to the coast and therefore make a judgement on likely changes to these numbers by implementing the policies or future development?
- For many locations it is considered that inadequate data exists to quantify on a local scale coastal bird (SPA qualifying features) distribution, particularly in relation to physical environmental factors such as tidal cycle and weather, but also in relation to existing human disturbance.

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TABLES

Table 1. Summary of qualifying features of SPA and SAC and rationale for likely significant effect

| European Site | Reasons for which the site has been designated (Qualifying Features) | Objectives for management | Sub-features identified by Natural England as key ecosystem elements that need to be maintained if management objectives are to be met. | Potential hazards/site vulnerabilities | Rationale for likely significant effect |
|------------------------------|--|--|---|---|---|
| Durham Coast SAC | Vegetated sea cliffs of the Atlantic and Baltic coasts | Subject to natural change, to maintain, in favourable condition, the vegetated sea cliffs of the Atlantic and Baltic Coasts. | None supplied by Natural England, but the following are likely ²¹ : <i>Extent of cliffs</i> <i>Vegetation structure</i> – showing zones and transitions <i>Indicators of local distinctiveness</i> - e.g. notable species. | Loss of habitat changes in flushing regime (both quantity and quality of water), changes to geomorphological processes (e.g. introduction of sea defences), changes to grazing regime, changes to trampling regime (recreation) ²¹ . Fire, public access/disturbance is reason cited for unit 10, neutral grassland – lowland to be in unfavourable, no change condition. ²² | Part of the site occurs within Sunderland City. Likely significant effects through damage to habitats due to increased coastal access, increased visitor pressure due to certain policies actively promoting this |
| Northumbria Coast SPA/Ramsar | Wintering - <i>Arenaria interpres</i> (Turnstone) Wintering - <i>Calidris maritima</i> (Purple sandpiper) Breeding - <i>Sterna albifrons</i> (Little tern) | To maintain the condition of the habitats (sub-features) used by the qualifying species (interest features) | For the wintering birds: Rocky shores with associated boulder and cobble beaches, which are used as feeding areas High tide artificial roost sites e.g. piers at River Tyne South Pier and Seaham Harbour Pier. For the breeding birds: Sandy and shingle beaches above the high- | Potential hazards identified by Natural England for interest features & sub-features that may be relevant for the Sunderland LDF: Effects on hydrodynamic regime especially with respect to silt/sand movements along coast & effect on beaches (little tern) Toxic contamination (pollution risks) (little tern, turnstone, purple sandpiper) – Tyne listed as greatest potential risk | Part of the site occurs within Sunderland City. Likely significant effects through damage to habitats due to increased coastal access, increased visitor pressure, and/or increased human disturbance to |

²¹ Determined by consultants, based on Common standards of monitoring proforma “*Maritime Cliff and Slope Habitats*” extracted from JNCC website

²² Condition of SSSI units taken from Natural England website: www.english-nature.org.uk/Special/sssi/reportAction.cfm?report=sdr113&category=S&reference=1000255

| European Site | Reasons for which the site has been designated (Qualifying Features) | Objectives for management | Sub-features identified by Natural England as key ecosystem elements that need to be maintained if management objectives are to be met. | Potential hazards/site vulnerabilities | Rationale for likely significant effect |
|----------------------|---|--|---|--|---|
| | | | tide mark, which are used by nesting little terns. (Sandy beaches adjacent to the Long Nanny at Low Newton are the key area.) Shallow inshore areas used by little tern for foraging. (Waters off Long Nanny and inshore waters.) Most feeding occurs offshore. Disturbance - the birds are vulnerable to disturbance. | Disturbance (all spp.) Habitat loss (all spp.) | qualifying features (birds) due to certain policies actively promoting this |
| Thrislington SAC | Semi-natural dry grassland and scrubland facies: on calcareous substrates | To maintain, in favourable condition the semi-natural dry grassland and scrubland facies on calcareous substrates. | Not applicable | Reduction in extent of grassland and scrubland facies. | No significant effects anticipated as site is distant from Sunderland and very small and of limited attraction to people except naturalists |
| Castle Eden Dene SAC | This site represents the most extensive northerly occurrence of yew (<i>Taxus baccata</i>) woods in the UK. Extensive yew woodland is found in association with ash-elm woodland and it is the only site selected for yew woodland on | To maintain the yew woodland in favourable condition. | Not applicable | Loss of ancient semi-natural yew woodland. | No significant effects anticipated as site is distant from Sunderland and very small and of limited attraction to people except naturalists |



| European Site | Reasons for which the site has been designated (Qualifying Features) | Objectives for management | Sub-features identified by Natural England as key ecosystem elements that need to be maintained if management objectives are to be met. | Potential hazards/site vulnerabilities | Rationale for likely significant effect |
|---------------|--|---------------------------|---|--|---|
| | magnesium limestone in the north-east England. | | | | |

| European Site | Reasons for which the site has been designated (Qualifying Features) | Objectives for management | Sub-features identified by Natural England as key ecosystem elements that need to be maintained if management objectives are to be met. | Potential hazards/site vulnerabilities | Rationale for likely significant effect |
|-----------------------------------|--|---|--|---|--|
| Teesmouth and Cleveland Coast SPA | <p>Internationally important populations of breeding little tern and migrant sandwich tern both of which are Annex 1. Internationally important populations of over-wintering knot an over-wintering and migratory redshank.</p> <p>Internationally important assemblage of water birds. The expansive intertidal mudflats and sandflats support dense populations of marine invertebrate species which are an important feeding resource for water birds.</p> | <p>Subject to natural change, maintain in favourable condition the habitats for the internationally important populations of the regularly occurring Annex 1 bird species, under the Birds Directive, in particular: Sand and shingle Intertidal sandflat and mudflat Shallow coastal waters 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: Rocky shores Intertidal sandflat and mudflat Saltmarsh Rocky shores: important feeding habitats for knot and redshank. Intertidal sandflat and mudflat Saltmarsh: feeding and roosting Grazing marsh</p> | <p>Sand and shingle: nesting area for little tern</p> <p>Intertidal sand and mudflat: roosting and loafing sites for sandwich tern during the post-breeding season and little tern in summer.</p> <p>Shallow coastal waters: the main feeding areas of little tern and sandwich ter.</p> <p>Rocky shores: vital food resource for the wintering knot and small proportion of the autumn redshank population.</p> <p>Intertidal sandflat and mudflat: supporting high densities of invertebrates which are important as food for knot and redshank.</p> <p>Subject to natural change, maintain in favourable condition the habitats for the internationally important assemblage of waterbirds, under the Birds Directive, specifically: Rocky shores Intertidal mudflat and sandflat Saltmarsh</p> | <p>Eutrophication of estuary sediments causing accelerated growth of smothering algae resulting in decreased density of invertebrates and hence decline in food availability of Waterbirds.</p> <p>Water quality</p> <p>Scrub encroachment on dunes</p> | <p>No significant effects anticipated as site is distant from Sunderland, in particular main new housing development sub areas</p> |

Table 2. Summary of management units of the Durham Coast SSSI that underpin the sections of the Durham Coast SAC and Northumbria Coast SPA/Ramsar site that are considered to lie within the zone of influence of the LDF boundary²³

| Unit Number | Main Habitat | Condition (& date assessed) | Condition assessment comment |
|-------------|-----------------------------|-----------------------------|---|
| 6 | Littoral Rock | Favourable | This unit is geologically important for its coastal cliffs which are exposed and not affected by sea defences. The favourable condition of the rocky foreshore is also maintained. (12/12/2002) |
| 10 | Neutral grassland – lowland | Unfavourable no change | Grassland dominated by false oat grass and tall herbs including <i>Cirsium arvense</i> . There is also evidence of dumping and other disturbance, i.e. burning. (20/12/2002) |
| 13 | Littoral Rock | Favourable | Site fabric is maintained to support purple sandpiper <i>Calidris maritima</i> . (08/08/2003) |
| 14 | Littoral Rock | Favourable | Site fabric is maintained to support purple sandpiper <i>Calidris maritima</i> . (08/08/2003) |
| 15 | Littoral Rock | Favourable | Site fabric is maintained to support purple sandpiper <i>Calidris maritima</i> . (08/08/2003) |

²³ Information extracted from Condition of SSSI units on Natural England's website. Data downloaded 26/11/2007

Table 3. Analysis of the preferred objectives of the LDF Core strategy and their potential to give rise to significant effects upon European Sites

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|---|---|--|---|
| <p>Spatial Development and Regeneration: To create a focused spatial distribution of employment, housing and other uses in the city via sustainable 're-modelling', prioritising areas for regeneration in the city where resources will be focused.</p> | <p>Introducing more mixed-use developments; applying increased density standards; improving building quality; utilising previously developed land; positioning new development with easy access to urban area main transport corridors and interchanges, identifying locations for Area Action Plans; redevelopment requiring master plans and areas requiring supplementary planning guidance.</p> | <ul style="list-style-type: none"> • Land take for new development (although focus is on re-use of land, and increased density standards will minimise this) • More efficient use of undeveloped land. | <p>This objective is unlikely to give rise to significant effects upon European Sites, particularly when considered in tandem with the objectives for biodiversity in the City and protecting the Countryside.</p> |
| <p>Population growth: To plan for sustainable growth of the city's population and to stem out-migration.</p> | <p>Encouraging people to choose to live in the city through an improved existing stock of housing; providing sufficient new housing in attractive, accessible locations; new and well distributed employment; and an enhanced range of cultural opportunities.</p> | <ul style="list-style-type: none"> • Land take for new development (focused on urban areas) • Increased demand for resources e.g. clean water, sewage disposal • Increase in numbers of people accessing open space | <p>Whilst population growth <i>per se</i> is unlikely to give rise to significant effects, the potential for increased recreational disturbance cannot be ruled out at this stage.</p> |
| <p>Carbon Emissions and Energy. To reduce carbon emissions in the city, towards a 60 percent reduction by 2050.</p> | <p>A range of measures including higher standards of insulation in existing and new development, more efficient heating and cooling systems, greater use of renewable energy and giving consideration to locations for development that will help reduce the need to travel, particularly by private car.</p> | <ul style="list-style-type: none"> • Land take for some renewable options • Reduced emissions improving conditions for species sensitive to air quality | <p>Whilst there will be widespread benefits to wildlife accruing from reduced carbon emissions and its effect on climate change, possible effects from certain types of renewable energy project cannot be ruled out at this stage.</p> |

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|---|--|---|--|
| <p>Flooding and climate change. To seek to reduce flooding and other climate impacts.</p> | <p>Careful location and design of new development and regeneration schemes, giving consideration to sustainable urban drainage systems, and mitigation of other significant climate impacts such as; sea level rise or extreme heat</p> | <ul style="list-style-type: none"> • Changes in rates of run-off to water courses • Possible land take for mitigation of sea level rise | <p>Proposals for coastal defence works to alleviate the effects of sea level rise could result in coastal squeeze and loss of habitat for key species such as purple sandpiper and turnstone. Significant effects upon the European Sites cannot be ruled out at this stage.</p> |
| <p>Using previously developed land. To maximise the reuse of PDL for a range of development uses, so as to minimise urban development of Greenfield land.</p> | <p>Recognising the particular value of PDL sites that are accessible to high quality public transport stops and interchanges; identifying the most appropriate use for the site (not necessarily housing); also that some PDL sites, due to location, contamination, naturalisation or community needs may be more appropriate left undeveloped or brought into use as public or other open space.</p> | <ul style="list-style-type: none"> • Reduced land take • Focusing land take in urban area | <p>No significant effects upon European Sites are anticipated</p> |
| <p>Waste and recycling. To increase the reuse and recycling of 'waste' in line with sub-regional responsibilities and plan for the most sustainable way of disposing of the remainder.</p> | <p>Measures to increase awareness, provide the necessary facilities for domestic and business collections, transfer, recycling and other waste recovery sites, and lastly by identifying suitable locations for landfill.</p> | <ul style="list-style-type: none"> • Land take • Reduced requirement for landfill | <p>This objective is unlikely to give rise to significant effects upon European Sites, particularly when considered in tandem with the objectives for biodiversity in the City and protecting the Countryside.</p> |

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|--|---|--|---|
| <p>Biodiversity and geological resource in the City. To protect the city's biodiversity resource from both the direct and indirect adverse effects of development, and seek opportunities to enhance that resource.</p> | <p>Identifying, resisting or remediating adverse impact associated with development providing appropriate policy protection for sites and protected species, paying particular attention to finding effective ways of protecting and enhancing lesser status sites and wildlife networks, up-dating the information database; and providing advice, education and support to increase the understanding of the importance of the city's biodiversity resource.</p> | <ul style="list-style-type: none"> Increased awareness and protection of resources. | <p>No significant adverse effects anticipated.</p> |
| <p>Accessibility and sustainable transport. To enhance accessibility for all to a full range of facilities and jobs and to develop sustainable transport and reduced dependency on car use.</p> | <p>Establishing an agreed long term vision for the location of new development, giving emphasis to improved access for areas of deficiency and deprived sectors of the community; introducing appropriate demand management measures; tackling major traffic congestion problems; improving conditions for public transport running; providing safe, direct and attractive pedestrian and cycle links, and encouraging improvements and seeking long-term extension to rail/Metro and integration of transport at interchanges.</p> | <ul style="list-style-type: none"> Impacts on air quality uncertain – possible increased traffic flows on improved routes could be counter-balanced by increased use of public transport. | <p>No significant adverse effects anticipated.</p> |
| <p>Connecting the City. To propose transport solutions that enhance the city's profile and economic competitiveness.</p> | <p>Ensuring improvements to inter and intra regional, national and international connectivity are incorporated in the wider sub-regional and regional transport planning processes; and prioritising major improvement and new transport and highways schemes that provide economic and city-image enhancements.</p> | <ul style="list-style-type: none"> Changes in air pollution affecting species sensitive to air quality. | <p>No significant adverse effects anticipated</p> |

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|--|---|---|---|
| <p>Health. To improve and protect citizens' health.</p> | <p>A spatial strategy that encourages activity over passivity, developing opportunities for physical activity in every day life, sport and recreation; through good urban design allowing better access and use of facilities for all sectors of the population, particularly older people and enabling a more equitable provision and distribution of health care facilities; and by reducing local environmental hazards e.g. air pollution</p> | <ul style="list-style-type: none"> Improved air quality | <p>No significant adverse effects anticipated</p> |
| <p>Employment portfolio. To develop economic prosperity by providing a wide portfolio of high quality employment sites 'fit for purpose' distributed to reduce the need to travel and to minimise Greenfield land-take.</p> | <p>Identifying sufficient land to meet future requirements; protecting essential land and premises from redevelopment to alternative uses; maximising the use for employment purposes of underused existing sites; supporting the bringing forward of employment development on sites in Central Sunderland (if needs be through compulsory purchase) and ensuring the completion of strategic access routes such as SSTC and the Central Route.</p> | <ul style="list-style-type: none"> Land take | <p>No significant adverse effects anticipated</p> |
| <p>Employment sectors. To support the development of key employment sectors and key employers in the city.</p> | <p>Identification of sites that suit sectoral needs; supporting the physical development, graduate retention and business linkages of the University, protecting, enhancing and supporting by ancillary facilities the features of cultural and tourism value; supporting and enabling the development of the Creative Industries sector, supporting and enabling the development of the Research and Development and knowledge-based sectors in the manufacturing and services; also seeking measures to reduce levels of unemployment and worklessness through education, retraining and health improvement action.</p> | <ul style="list-style-type: none"> Uncertain, depending on location and nature of employment | <p>No significant adverse effects anticipated</p> |

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|---|---|--|--|
| <p>Lifelong learning. To ensure development of further facilities to enable 'lifelong learning'.</p> | <p>Supporting the 'Building Schools for the Future' initiative, ensuring vital University, Sunderland College, libraries and ICT developments can take place' developing other learning experiences through appropriate design and preservation schemes; and seeking suitable funding for the creation and maintenance of features and facilities, including the use of S106 planning agreements.</p> | <ul style="list-style-type: none"> • Uncertain | <p>No significant adverse effects anticipated</p> |
| <p>Improving neighbourhoods. To achieve sustainable, attractive and popular residential neighbourhoods throughout the city that are well integrated with schools, shops and services, community facilities and open space.</p> | <p>Ensuring enhanced, safe and secure environments linked by a network of green space; taking measures to improve and provide quality public realm and local networks of attractive pedestrian and cycle access to facilities; ensuring essential local facilities are provided; with new development to a high standard of sustainable design; and protecting areas, buildings and other features of locally distinctive character from depredation.</p> | <ul style="list-style-type: none"> • Potential for habitat creation/management • Increased disturbance to wildlife | <p>The potential improved and increased access to European Sites may lead to increased trampling damage to the SAC or disturbance of bird populations of SPA. Significant effects cannot be ruled out at this stage.</p> |
| <p>Land for housing. To ensure enough land for new housing is provided to achieve RSS allocation guidelines and targets for the reuse of PDL.</p> | <p>Identifying sustainable locations that bring forward well-located major PDL (e.g. in Central Sunderland); encouraging higher densities at the most accessible locations; supporting area regeneration initiatives; and supporting the viability of major public transport corridors (particularly the Metro).</p> | <ul style="list-style-type: none"> • Land take (although increased densities will help to reduce the amount of land required) | <p>This objective is unlikely to give rise to significant effects upon European Sites, particularly when considered in tandem with the objectives for biodiversity in the City and protecting the Countryside.</p> |
| <p>Housing Choice. To provide a range and choice of housing types and tenures for all, which are affordable, energy efficient, and designed and built to high standards.</p> | <p>Identifying and quantifying the need for 'affordable' housing; seeking a mix of types and tenures within larger developments; and providing for under-represented housing types in the city e.g. executive and high value family housing.</p> | <ul style="list-style-type: none"> • Uncertain | <p>No significant effects upon European Sites anticipated.</p> |

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|--|---|--|--|
| <p>Protecting the countryside. To protect and enhance the countryside, its landscape and areas of individual landscape character, including features associated with the River Wear, Sunderland Coast and the Magnesium Limestone Escarpment.</p> | <p>Seeking to minimise the adverse impact of urbanisation, minerals extraction, recreational facilities and other development; considering the impact of policies on the Natura 2000 sites; maintaining the integrity of the Green Belt; identifying the most sustainable access opportunities; seeking provision of remediation and countryside enhancement agreements as part of the development process; ensuring continued support for creation of the Great North Forest; and providing advice, education and support to farmers and other rural enterprises on protection of the landscape.</p> | <ul style="list-style-type: none"> Habitat protection and enhancement | <p>Any effects will be positive in nature.</p> |
| <p>Green infrastructure. To ensure that all homes have good access to a range of green spaces linked across the city connecting major parks, the riverside, the coast and adjoining districts.</p> | <p>Creating and maintaining new open space where deficiencies are identified; incorporating new measures to promote play, sport and physical activity; protecting important existing spaces from adverse development; utilising and creating off-road footpath, bridleway and cycling routes to connect; ensuring that the level of access is appropriate to the features and size of the green space; ensuring biodiversity and other benefits are achieved e.g. creation of the Great North Forest; and achieving separation from motor vehicles whilst ensuring accessibility by car and public transport.</p> | <ul style="list-style-type: none"> Increased areas/quality of habitat Increased awareness of biodiversity Increased disturbance of sensitive features | <p>Increased access to European Sites could result in increased trampling or erosion damage or disturbance of bird populations. Significant effects cannot be ruled out at this stage.</p> |

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|---|--|---|---|
| <p>City Centre and other Centres. To expand and develop the city centre and city centre fringe into a vibrant and economically buoyant entity, whilst securing the viability and attractiveness of secondary and tertiary centres.</p> | <p>Creating opportunities in and around the city centres for new high quality office, leisure, cultural, tourism and housing developments, set in a top quality public realm with landmark buildings, public art and design and gateway entrances (such as a refurbished Sunderland Central Station); activating public space through an events programme aiding navigation and signage by supporting the Legible City programme; confirming the key elements included in the plan for Central Sunderland (UDP Alteration No.2); focussing council and other services holistically on other centres; enhancing local access networks, considering improvements to access by public transport and the private car and identifying opportunities for enhancements through mixed-use redevelopment, possibly incorporation new housing.</p> | <ul style="list-style-type: none"> Uncertain, depending upon nature of proposals and requirement for resources | <p>No significant effects identified at this stage.</p> |
| <p>Design and heritage. To increase the contribution that urban design and valued cultural and heritage assets can make to the image of the city and the quality of life of its residents.</p> | <p>Encouraging new attractive and sustainable design solutions; ensuring that where affected by development existing assets are not only protected but enhances where appropriate; proposing a range of measures to remediate or protect from neglect key cultural and heritage assets; and by raising awareness of the value of the city's historic buildings and areas.</p> | <p>None</p> | <p>No significant effects anticipated.</p> |

| Objective | Main elements of objective | Possible environmental changes arising from objective | Potential impact on European Sites (based on their sensitivity) |
|--|--|---|---|
| Cohesive, inclusive communities. To ensure that the physical development of the city accommodates the diverse needs of the city community's different groupings (including travelling communities), providing equal opportunities of access to a range of activities, housing and jobs, in safe environments. | Ensuring that development and redevelopment provide an appropriate mix of tenures, types and affordability of housing, that there is enough land and premises in a range of locations to provide a choice of jobs; that schools, cultural, sports and other facilities can be provided in locations that help develop inclusivity, particularly of young people, into society; and to propose regeneration and other measures to foster mixed and inclusive communities through creative urban design. | None | No significant effects anticipated. |

Key:

| | |
|---|---|
|  | Objective for which no significant effects upon European Sites are anticipated |
|  | Objective for which significant impacts upon European Sites cannot be ruled out at this stage |

Table 4. Analysis of the LDF Core Strategy Preferred Option policies and their potential to give rise to significant effects upon European Sites

| Core Strategy Policies | Main elements of policy | Possible adverse effects on European Sites? |
|---|--|--|
| CITY WIDE POLICIES | | |
| CS1: Spatial development, growth and regeneration | Regeneration and development of the city. Majority of new housing and employment development located in South Sunderland. Key locations of relevance to European Sites include along the River Wear corridor within the core urban area of Central Sunderland and the Port. The policy also promotes key transport corridors, and the protection of important natural assets | Policy allows for protection of important natural assets, maintaining green belt and network of open spaces, but includes promotion of transport links, which in turn if through or adjacent to European Sites, could lead to increased access or disturbance to vulnerable coastal areas and wildlife. However, the coast and River Wear are identified as strategic green infrastructure corridors and will be protected and enhanced; this mitigation will ensure that adverse effects are unlikely |
| CS2: Sustainable Communities | Addresses appropriate development, waste, minerals, renewable energy, environmental protection and connectivity. This policy inherently promotes good environmental stewardship | Uncertainty remains: Connectivity policies, especially the development of the English Coast pathway may, if not mitigated adequately, result in disturbance effects to SPA qualifying bird species in coastal locations. EIA of this scheme should highlight and assess impacts and result in adequate mitigation. Otherwise effects are unlikely, as the focus of this policy is on land within the centres of Sunderland and Washington, with an emphasis on sites identified through Alteration No 2 |
| CS3: Sustainable Development | Ensuring suitable siting of buildings, high construction quality buildings, minimise air and water pollution | Unlikely when considered in combination with CS2 |
| CS4: Waste Management | Development of sustainable waste management procedures incorporating recycling targets. Identification of a site for a strategic waste management facility within the South Tyne and Wear Waste Partnership area | Unlikely when considered in combination with CS2 |
| CS5: Minerals | Identification of areas to be safeguarded for current or future mineral extraction | Unlikely when considered in combination with CS2 |
| SUB AREA POLICIES | | |

| Core Strategy Policies | Main elements of policy | Possible adverse effects on European Sites? |
|-------------------------|--|---|
| CS6: Central Sunderland | Sub area policy aspiring to a rich and diverse mix of residential, employment, commercial and leisure areas. Embedded environmental policy offers some protection for European Sites however possible conflicting policies. | <p>Potential erection of wind turbines at the port, recreational interests on river, and visitors attracted to candidate World Heritage Site may create greater coastal disturbance and effects on qualifying bird features of SPA.</p> <p>However, policy on maintaining a balance between conservation and recreation may mitigate to some degree. Careful consideration of biodiversity and effects on qualifying bird features of SPA during determination of planning applications is required. This must include adequate EIA (where required) or Appropriate Assessment of proposed developments that may result in a significant adverse effects on European Sites.</p> |
| CS7: Sunderland South | Sub area policy aspiring to diverse mix of residential and employment areas including rejuvenation of the south bank of the River Wear. Embedded environmental protection policies and identified constraint includes acknowledgement of SPA protection; | <p>No direct effects on Durham Coast SAC are anticipated as environmental planning policy controls are in place to prevent this. Adverse significant effects are unlikely with site specific EIA or non statutory ecological assessment for both development and recreational uses of coast and river areas.</p> <p>Prior to determining planning consent or otherwise permitting the proposals adequate mitigation must be agreed to prevent excesses disturbance to European Sites or qualifying features.</p> <p>Mitigation to alleviate this effect needs to be considered and enforced through acknowledgement of identified SPA/SAC constraint to development objectives and application of inbuilt environmental protection policies, as for SAC in CS8.</p> |

| Core Strategy Policies | Main elements of policy | Possible adverse effects on European Sites? |
|------------------------|--|---|
| CS8: Sunderland North | Sub area policy aspiring to achieving development of high quality uses along riverside and seafront strip. Encouragement of tourism to coastal site, especially St Peters. Seafront Strategy and Seaburn and Roker seafront regeneration. Development of 2,116 new dwellings. Embedded environmental protection polices. | No direct effects on Northumbria Coast SPA are anticipated as environmental planning policy controls are in place to prevent this. Indirect effects could result through improved infrastructure connections or facilities which enable/encourage better coastal access for additional populace, which may increase visitor pressure on coastal European Sites. Locations within the SPA boundary most at risk of disturbance are Parson's Rocks (Northumbria Coast SPA) and section of Durham Coast SAC from South Bents/Whitburn north. Mitigation to alleviate this effect needs to be considered and enforced through acknowledgement of identified SPA/SAC constraint to development objectives and application of inbuilt environmental protection policies, as for SPA in CS7. |
| CS9: Washington | Sub area policy aspiring to major refurbishment of New Town with a variety of high-tech businesses and improved green infrastructure linking it to surrounding villages. | Inland sub area, most distant from European Sites thus no direct effects are anticipated. Indirect effects could result through improved infrastructure connections to enable/encourage better coastal access for additional populace, which may increase visitor pressure on coastal European Sites. Mitigation to alleviate this effect needs to be considered and enforced through application of environmental protection policies for SPA in CS7 and CS8 |
| CS10: Coalfield | Sub area policy aspiring to a achieving a "balanced" range of new housing and employment opportunities set in a surrounding green landscape. Development of 3,527 new dwellings | Inland sub area, most distant from European Sites thus no direct effects are anticipated. Indirect effects could result through improved infrastructure connections to enable/encourage better coastal access for additional populace, which may increase visitor pressure on coastal European Sites. Mitigation to alleviate this effect needs to be considered and enforced through application of environmental protection policies for SPA in CS7 and CS8 |

| | |
|--|--|
| | Policy for which no significant effects upon European Sites are anticipated |
| | Policy for which significant effects upon European Sites cannot be ruled out at this stage |

Table 5. Analysis of other plans that may give rise to “in combination” significant effects upon European Sites

| Plan/Document | Aim and purpose of the plan/document | Possible aspects of the plan that could contribute to “in combination” effects |
|---|---|---|
| Shoreline Management Plan 2 River Tyne to Flamborough Head | The plan establishes management policies over three time periods. | The proposals include options for hard defences, potentially in part of the SPA, and allowance of natural erosion, which could lead to a loss of coastal habitat. Scheme specific Appropriate Assessment suggests that following inclusion of mitigation measures no adverse impacts are likely. |
| Wear Catchment Flood Management Plan (Scoping phase August 2005) | The plan aims to reduce the risk of flooding, to work with natural processes, to support the implementation of International and national legislation and policies, to promote sustainable flood risk management and inform and support the development of planning policies and plans. | None |
| Local Transport Plan Tyne & Wear 2006 - 2011 | The aim is to support and enhance regeneration and greater economic prosperity in the region through maintaining and improving linkages within and beyond the area, ensuring transport systems are safe and secure, improving efficiency of transport, and reducing the environmental impact of transport. | The Sunderland Strategic Corridor, linking the A19, the city centre and the docks, including the Sunderland Arc regeneration area is identified as a focus for growth over the next five years. The Core Strategy covers aspects of this development; possible impacts on the European Sites are related to increased access and recreational use of the coast and possible disturbance of birds. |
| Regional Planning Guidance for the North East (RPG1), November 2002 | Provides a vision and strategy to achieve sustainable development of the NE region based on four themes: acceleration of the renaissance of the Tyne, Wear and Tees conurbations; provision of job opportunities and support of communities in the former coalfield areas; adaptation and revitalisation of the region’s town and city centres; and securing rural regeneration. The need for a strategic employment site north of Sunderland is identified. Targets for new housing and the generation of renewable energy are included. | Implementation of the plan will be realised through documents produced by Sunderland City Council, e.g. UDP Alteration No. 2, and this core strategy. No additional possible impacts are identified upon the European Sites. |
| “Leading the way” Regional Economic strategy 2006 – 2016 | Sets out priorities to achieving sustainable economic development. Includes targets for the creation of new | Plan includes recommendations for improvement to transport infrastructure, which could have knock-on effect on improving access to the coast and increasing |

| Plan/Document | Aim and purpose of the plan/document | Possible aspects of the plan that could contribute to “in combination” effects |
|--|--|--|
| | jobs and businesses. | visitor pressure thus potentially damaging habitats and disturbing birds. |
| The North East England Regional Housing Strategy 2007 | Sets out objectives for housing: rejuvenating housing stock and markets; providing choice through a better mix of types of new homes; improving and maintaining existing homes; and meeting specific housing requirements within communities. Complements the RSS | May lead to additional resource requirements e.g. water, energy, etc. Land take elements will be covered by the Core Strategy and UDP Alteration No. 2. Any effects will be covered by consideration of the LDF Core Strategy. |
| North East Regional Renewable Energy Strategy, March 2005 | Establishes targets for amount of electricity to be generated from renewable sources by 2010 and 2020. Also identifies possible locations for different forms of renewable developments. | Focus within Sunderland area is likely to be on small-scale schemes situated on site rather than large-scale onshore or offshore wind developments. |
| Rural Action Plan, 2002 | Identifies a vision for rural areas in the North East. | None |
| North East Tourism Strategy 2005-2010 | Establishes ten objectives for promoting tourism in the North East area. The focus is on increasing visitor numbers, improving investment, improving the visitor experience conserving the region’s resources. Coastal areas are seen as a priority, together with improving transport links for visitors. | Increased recreational use of parts of the coast could lead to elevated levels of disturbance, particularly to bird populations, and damage to habitats. |
| Regional Spatial Strategy for the North East | Sets out a long-term strategy for the spatial development of the North East. Four objectives are identified: economic prosperity, sustainable communities, enhanced environment and improving connectivity. Economic development and development of retail opportunities in Sunderland are promoted. Targets for allocation of employment land and dwelling provision within the Sunderland area are also included. Other key elements include support for regeneration of the River Wear corridor, growth of the Port, development of small-scale urban windfarms, development of the Sunderland Strategic Transport Corridor and the Sunderland Southern radial route. | Sunderland City Council will achieve implementation of key areas through the LDF core strategy, UDP Alteration No. 2 and other policy documents. Main impacts on European Sites could arise from increased disturbance and damage to coastal habitats arising from increased population numbers and better road access to the coast. |
| LDF Core Strategy Draft Preferred Options (09/01/08). Newcastle City Council | Sets out the strategic framework for development within Newcastle until 2021 | None |

| Plan/Document | Aim and purpose of the plan/document | Possible aspects of the plan that could contribute to “in combination” effects |
|---|--|--|
| Planning the Future of Chester-le-Street Core Strategy issues and options report. | Sets out the strategic framework for development within the Chester-le-street local authority area. | None |
| County Durham Structure Plan Saved Policies | Identifies policies from the structure plan that are to be retained past September 2007 until each local authority has established a LDF | None |
| District of Easington Local Development Framework (in prep) | Sets out the strategic framework for development within Easington | None identified to date |
| City of Durham Development Control Policies preferred options, LDF. August 2007 | Sets out proposed approach to policy development | None |
| South Tyneside LDF Core Strategy adopted June 2007 | Sets out proposed framework for development and use of land over next 15 years | Whilst the plan includes policies promoting recreational access to and use of the coast, it also includes strong policies to conserve and enhance biodiversity (EA2) and to maintain and enhance the integrity of designated sites and priority habitats (EA3). No “in combination” effects anticipated. |
| North Tyneside LDF Core Strategy Issues and Options Report Nov. 2006 | Sets out different options for management to 2021. | Policies not yet available on web site. |
| County Durham LDF Core Strategy | | Policies not yet available on web site |
| Northumbria River Basin Management Plan | Sets out targets to achieve better management and use of water environments | Unlikely to result in significant adverse effect as aims are to improve environmental management including estuaries and coastal waters |

Table 6. Assessment of the potential of the LDF Core Strategy policies and “in combination” effects upon the Durham Coast SAC

| Site sensitivities/features required to retain site in favourable condition | Aspects of the LDF Core Strategy that might generate impacts | Other plans that may help to generate an effect | Risk of a significant effect | Further assessment required? |
|--|--|--|---|------------------------------|
| Coastal processes and hydrodynamic regime: site vulnerable to loss of habitat due to coastal erosion processes being constrained | None | Shoreline Management Plan 2, River Tyne to Flamborough Head | There may be impacts in the absence of any plans | No |
| Direct damage of habitat: particularly related to changes in vegetation composition and structure, e.g. as a result of changes in grazing, fertiliser application and/or trampling pressure from people and wildlife | All policies that lead to increased ease of access to the coast, e.g. by improved road/cycle links, or as a result of increasing development and the population size near the coast: CS1, CS6, CS9 | Local Transport Plan Tyne & Wear; “Leading the way”; NE Tourism Strategy | Parts of the site are currently considered to be unfavourable due to dumping of materials and fire damage. There is the potential to “double-count” impacts as the Regional strategic documents, such as the Local Transport Plan, and the Regional Economic Strategy inform the LDF Core strategy policies. | Yes |
| Disturbance of fauna | None | None | None | None |

Table 7. Assessment of the potential of the LDF Core Strategy Preferred Option policies and “in combination” effects upon the Northumbria Coast SPA/Ramsar site

| Key factors to maintain integrity | Aspects of the LDF Core Strategy that might generate impacts | Other plans that may help to generate an effect | Risk of a significant effect | Further assessment required? |
|---|--|--|--|------------------------------|
| Coastal processes and hydrodynamic regime: Site vulnerable to loss of habitat due to coastal erosion processes being constrained | None | Shoreline Management Plan 2 River Tyne to Flamborough Head | Whilst coastal defence works could have a potential impact on habitat availability for purple sandpiper and turnstones, the SMP includes mitigation for these species and concludes that there will be no significant effect on the integrity of the SPA/Ramsar site | No |
| Direct damage of habitat, particularly related to changes in vegetation composition and structure e.g. as a result of changes in grazing, fertiliser application and/or trampling pressure from people and wildlife | None | None | None | No |
| Disturbance to feeding and roosting purple sandpiper and turnstone, e.g. from people, pets, machinery, etc. | Any policy that enables better access to coastal areas important for feeding or roosting, or increases the size of the population based close to the areas used by feeding/roosting purple sandpiper and turnstone: CS1, CS6, CS9. | Local Transport Plan Tyne & Wear; “Leading the way”; NE Tourism Strategy | Increased recreational/visitor disturbance cannot be ruled out at this stage | Yes |
| | Plan for which no significant in combination effects upon European Sites are anticipated | | | |
| | Plan for which significant effects upon European Sites cannot be ruled out at this stage | | | |

APPENDICES

APPENDIX 1 - DOCUMENTS REVIEWED FOR APPROACHES TO APPROPRIATE ASSESSMENT

Dartmoor National Park Authority. December 2007. Habitats Regulations Assessment (Appropriate Assessment). Screening Report. Version 1

David Tyldesley and Associates. 2006. Draft guidance: The assessment of Regional Spatial Strategies and Sub regional Strategies under the Provisions of the Habitats Regulations. A report for English Nature. Issue 02, August 2006.

Dodd, A. M., Cleary, B. E., Dawkins, J. S., Byron, H. J., Palframan, L. J. and Williams, G. M. 2007. The Appropriate Assessment of Spatial Plans in England. A guide to why, when and how to do it. The RSPB, Sandy, Beds.

English Nature Habitats Regulations Guidance Notes:

HRGN1, The Appropriate Assessment (Regulation 48). The Conservation (Natural Habitats &c) Regulations, 1994. May 1997

HRGN 2, Review of existing planning permissions and other consents. The Conservation (Natural Habitats &c) Regulations, 1994. May 1997

HRGN 3, The Determination of Likely Significant Effect under The Conservation (Natural Habitats &c) Regulations, 1994. November 1999

HRGN 4, Alone or in combination. May 2001

HRGN 6, The condition imposed on Permitted Development by The Conservation (Natural Habitats &c) Regulations, 1994 (Regulations 60-63). November 2001

European Commission. 2001. Assessment of plans and projects significantly affecting natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC

Natural England. May 2007. The Planning system and the Habitats Regulations. Interim briefing note – Yorkshire and the Humber Region

Scott Wilson, Levett-Therivel, Treweek Environmental Consultants & Land Use Consultants. 2006. Appropriate Assessment of Plans.

Scott Wilson and Levett-Therivel. October 2006. Appropriate Assessment of the Draft South East Plan. Final Report.

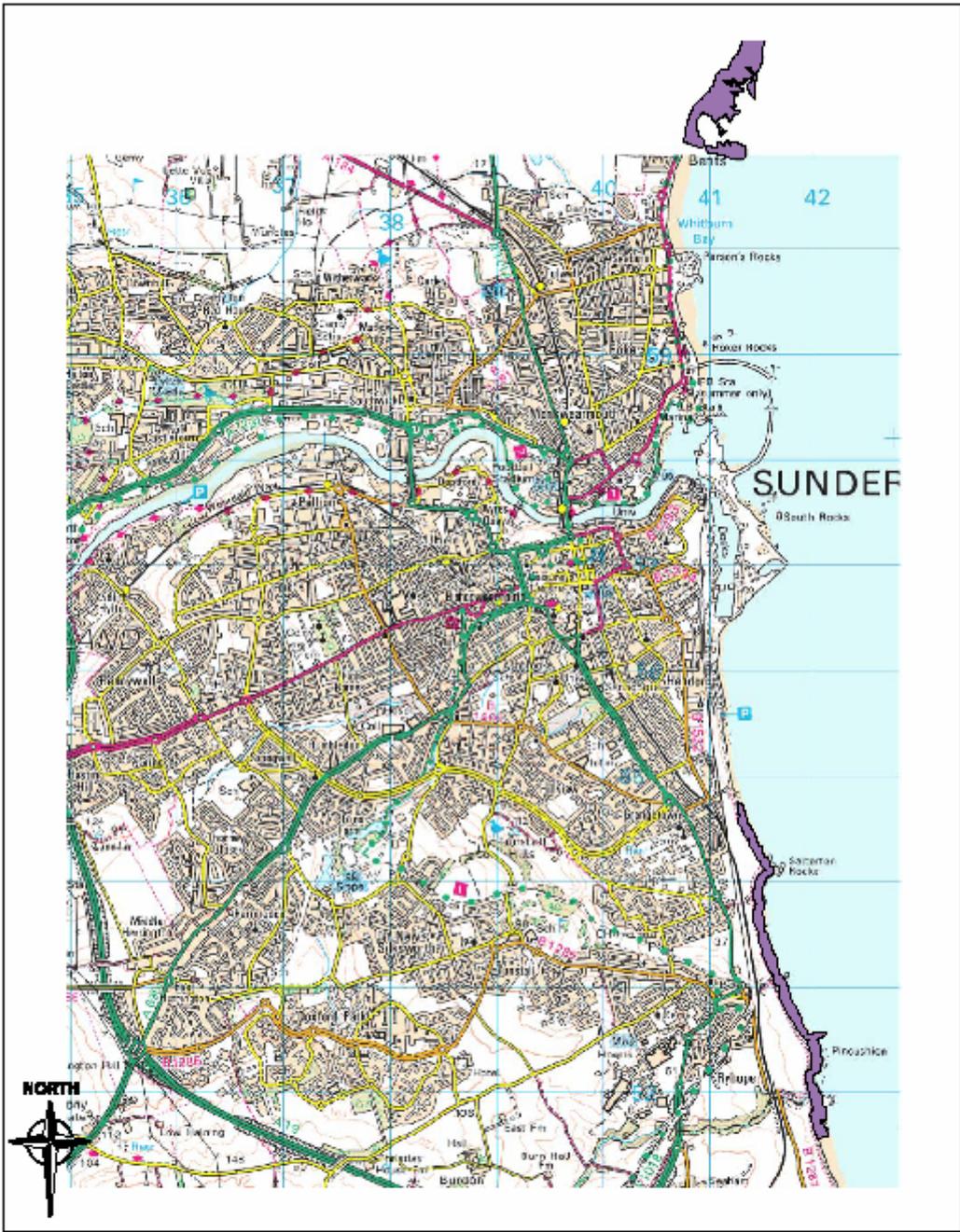
Teignbridge District Council. January 2007. Habitats Regulations Assessment of the Teignbridge Local Development Framework. Screening Stage Report on the Core Strategy.

Treweek Environmental Consultants. 2006. Appropriate Assessment Screening of the Regional Spatial Strategy for the North East. Report to Government Office.

Waverley Borough Council. July 2006. Assessment of the Core Strategy of the Waverley Borough Local Development Framework in relation to the Special Protection Areas and Special Area of Conservation

APPENDIX 2 – MAPS OF EUROPEAN SITES ASSESSED FOR POTENTIAL SIGNIFICANT EFFECTS





Site



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Plot Date :
AutoCAD File Name :

Drawing Title

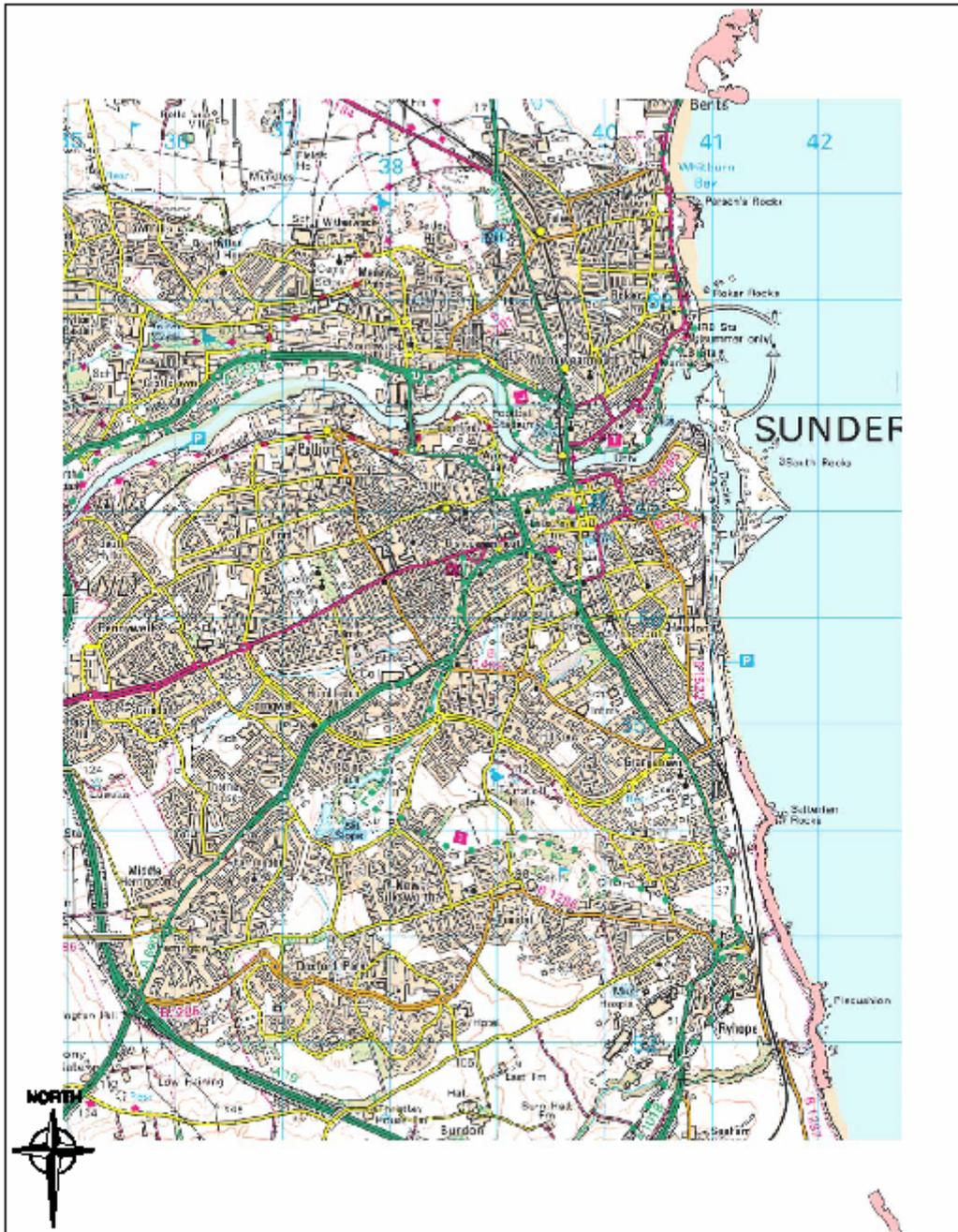
Boundary of Durham Coast SAC site in vicinity of Sunderland

| | | |
|------------------------|------------|------|
| Scale of A4 : 1:50,000 | | |
| Drw YH | App | Rev |
| Chk SB | Date 02/07 | Date |



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Size

 SPA and Ramsar site

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Plot Date :
AutoCAD File Name :

Drawing Title

**Boundary of Northumbria Coast SPA and
Ramsar site in vicinity of Sunderland**

| | | |
|------------------------|------------|------|
| Scale of A4 : 1:50,000 | | |
| Drw YH | App | Rev |
| Chk SB | Date 02/07 | Date |



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APPENDIX 3 – QUALIFYING FEATURES AND FAVOURABLE CONDITION TABLES

SPA: Northumbria Coast
SPA: Teesmouth and Cleveland Coast
pSAC: Durham Coast
Component SSSI: Durham Coast

Conservation objectives for the European interest on the SSSI

The conservation objectives for the European interest on the SSSI are:

to maintain* in favourable condition the habitats for the populations of Annex 1 species + of European importance, with particular reference to:

Intertidal sand and mudflats
Sand dunes
Coastal waters
+ Little Tern

to maintain*in favourable condition the habitats for the populations of migratory bird species + of European importance, with particular reference to:

Intertidal sand and mudflats
Rocky shores with associated boulder and cobble beaches
Artificial high tide roost sites
+ Knot, Purple Sandpiper, Turnstone

to maintain in favourable condition the habitats for the populations of waterfowl that contribute to the wintering waterfowl assemblage of European importance, with particular reference to:

Intertidal sand and mudflats

Subject to natural change, to maintain*, in favourable condition, vegetated sea cliffs of the Atlantic and Baltic Coasts

* maintenance implies restoration if the feature is not currently in favourable condition.

The conservation objectives for the **Teesmouth and Cleveland Coast Special Protection Area** are, in accordance with para C 10 of PPG 9, the reasons for which the SPA was classified. The entry of 25 August 1998 on the Register of European Sites gives those reasons for which the SPA was initially classified. The SPA has subsequently been amended with the extension being classified on 31 March 2000. The extended site has not yet been entered on the Register of European Sites.

The conservation objectives for the **Teesmouth and Cleveland Coast European marine site** were published by English Nature on 6 November 2000.

The **Teesmouth and Cleveland Coast SPA** includes land within the following SSSIs: Cowpen Marsh; Durham Coast; Redcar Rocks; Seal Sands; Seaton Dunes and Common; South Gare and Coatham Sands; and Tees and Hartlepool Foreshore and Wetlands.

The conservation objectives for the **Northumbria Coast Special Protection Area** are, in accordance with para C10 of PPG 9, the reasons for which the SPA was classified. The entry of 31 May 2000 on the Register of European Sites gives those reasons for which the SPA was classified.

The conservation objectives for the **Northumbria Coast European marine site** were published by English Nature on 6 November 2000

The **Northumbria Coast SPA** also includes land within the following SSSIs: Northumberland Coast, Newton Links and Lindisfarne.

The conservation objectives for **Durham Coast possible Special Area of Conservation** are, in accordance with para C10 of PPG 9, the reasons for which the pSAC was proposed.

Favourable Condition Table for Durham Coast SSSI

The Favourable Condition Table will be used by English Nature and other relevant authorities to determine if a site is in favourable condition. Favourable condition is achieved when the targets given below are met.

The favourable condition table should inform the scope and nature of any 'appropriate assessment' under the Habitats Regulations, but an appropriate assessment will also require consideration of issues specific to the individual plan or project. The favourable condition table does not by itself provide a comprehensive basis on which to assess plans and projects as required under Regulations 20-21, 24, 48-50 and 54 - 85. The scope and content of an appropriate assessment will depend upon the location, size and significance of the proposed project. English Nature will advise on a case by case basis.

Following an appropriate assessment, competent authorities are required to ascertain the effect on the integrity of the site. The integrity of the site is defined in para C10 of PPG9 as the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified. The determination of favourable condition is separate from the judgement of effect upon integrity. For example, there may be a time-lag between a plan or project being initiated and a consequent adverse effect upon integrity becoming manifest in the condition assessment. In such cases, a plan or project may have an adverse effect upon integrity even though the site remains in favourable condition.

Annual counts for qualifying bird species will be used by English Nature, in the context of five year peak means, together with available information on UK population and distribution trends, to assess whether the SPA is continuing to make an appropriate contribution to the Favourable Conservation Status of the species across Europe.

| Operational feature | Criteria feature | Attribute | Measure | Target | Comments |
|--|--|------------------------------------|---|--|--|
| All Habitats: Coastal waters, Intertidal sand and mudflats, Sand dunes | Waterfowl assemblage including Annex 1 and migratory populations of European importance. | Extent and distribution of habitat | Area (ha) of habitat measured once during the reporting cycle | No significant decrease in extent from an established baseline, subject to natural change. | All qualifying species Important breeding, feeding and roosting areas. Baseline level to be determined. Methodology for assessing target to be determined |

| Operational feature | Criteria feature | Attribute | Measure | Target | Comments |
|-------------------------------|---|--|---|---|--|
| | | Disturbance in nesting, roosting and feeding areas | Reduction in or displacement of birds, measured periodically (frequency to be determined). | No significant reduction in numbers or displacement of birds from an established baseline, subject to natural change. | All qualifying species. Excessive disturbance can result in reduced food intake and/or increased energy expenditure. Methodology for assessing targets and baseline levels to be determined. |
| | | Landscape | Open terrain, relatively free of obstructions (feeding, anti-predator, roosting), measured periodically (frequency to be determined). | No significant reduction in view-lines in feeding and roosting areas from an established baseline, subject to natural change. | Knot and sanderling need areas with unrestricted views over > 200m and an effective field size of >10 ha. Methodology for assessing targets to be determined. |
| Coastal waters | Annex 1 populations of European importance: populations: Species: Little Tern | Food availability | Abundance of fish, crustaceans, worms and molluscs, measured periodically (frequency to be determined). | No significant reduction in presence and abundance of food species from an established baseline, subject to natural change. | Important prey species for little tern during the breeding season include crustacea, annelids, sandeels and clupeidae. Baseline to be determined. Methodology for assessing target to be determined. |
| Intertidal sand and mudflats, | Migratory species of European and national importance: Knot, Winter assemblage: Sanderling | Food availability | Abundance of surface and sub-surface invertebrates, measured periodically (frequency to be determined). | No significant reduction in presence and abundance of food species from an established baseline, subject to natural change. | Knot- prey species include <i>Macoma</i> , <i>Mytilus /Cerastoderma spat</i> , <i>Hydrobia</i> . Sanderling - prey species include <i>Bathyporeia</i> and <i>Mytilus spat</i> , wrack flies, sandhoppers. Baseline to be determined. Methodology for assessing target to be determined. |

| Operational feature | Criteria feature | Attribute | Measure | Target | Comments |
|---|---|---------------------------------------|--|--|---|
| Sand dunes | Annex 1 species of European importance: Little Tern | Vegetation characteristics | Predominantly open ground with sparse vegetation and bare surfaces (colonial nesting), measured periodically (frequency to be determined). | No significant change in extent of open ground with sparse vegetation and bare surfaces throughout areas used for nesting and roosting, from an established baseline, subject to natural change. | Little Tern require < 10% vegetation cover throughout the areas used for nesting during the breeding season. Baseline to be determined. Methodology for assessing target to be determined. |
| Rocky shores with associated boulder and cobble beaches | Populations of regularly occurring migratory species or European importance | Extent of habitat | Area (ha) measured once during the reporting cycle. | No decrease in extent from an established baseline, subject to natural change. | Important for feeding and roosting purple sandpiper and turnstone. |
| | | Food availability | Abundance of epibenthic invertebrates amongst rotting seaweed. Measured periodically (frequency to be determined). | Presence and abundance of food species during the wintering period should not deviate significantly from established baseline, subject to natural change. | <i>Balanus, Mytilus, Carcinus, Gammarus, Littorina, Nucella</i> , dipteran flies and kelp-fly larvae are important in the winter for purple sandpiper and turnstone. |
| | | Vegetation characteristics | Open, short vegetation or bare ground predominating | Vegetation height throughout areas used for breeding should not deviate significantly from established baseline, subject to natural change. | Open areas maintained naturally. Vegetation cover of <10cm is required throughout the areas used for roosting purple sandpiper and turnstone. |
| | | Absence of obstructions to viewlines. | Openness of terrain unrestricted by obstructions. | Visibility should not deviate significantly from established baseline, subject to natural change. | Areas with unrestricted views over >200m for purple sandpiper and turnstone to allow for early detection of predators when feeding and roosting. |
| | Artificial high tide roost sites | Extent | Presence of structure | No loss of favoured roost areas, subject to natural change. | Favoured artificial roost sites are River Tyne South pier and Seaham Harbour pier. |

Vegetated sea cliffs of the Atlantic and Baltic coasts

| Operational Feature | Criteria Feature | Attribute | Measure | Target | Comments |
|-----------------------|--|---|--|--|---|
| Maritime Cliff | Vegetated sea cliffs of the Atlantic and Baltic coasts | Extent of cliff | Approximately 30% of sea cliff supporting or capable of supporting vegetated sea cliff communities. (Baseline figure taken from survey maps) Measure at least once per reporting cycle. | The overall length and/or area of the cliff habitat of the site is maintained taking into account natural variation | Requires up to date NVC mapping to provide accurate baseline. This attribute will be important for all cliff types. On near-vertical cliffs it may be difficult to assess area, and a length measurement may be more appropriate. On less steep cliffs area may be measurable. Area of suitable habitat behind a receding cliff line may also be important. |
| | | Mobility | Percentage of linear extent and area of cliff structure and geomorphological processes not immediately constrained by introduced structures or landforms. Measured once per reporting cycle. | No increase in linear extent or area constrained by introduced structures or landforms. | An important aspect of this habitat is the modification of vegetation patterns in response to natural and geomorphological coastal processes without constraints. Introduction of or increase in physical constraints would reduce the mobility of the cliff and reduce the range of communities which represent this interest feature. Information on existing coast protection should be available from the SMP |
| | | Physical features supporting vegetation patterns/zonation | Assessment of distribution of main zones in relation to cliff behavioural units and distance from maritime influence. Measured once per reporting cycle. | Maintain the range of physical conditions arising from variation in geology and geomorphology, profile, stability, degree of maritime exposure, drainage, aspect, geographical location and history of management. Local targets will need to be established. Physical conditions should be able to support the full range of vegetation communities characteristic of the site. | Changes in patterns are reflected in changes to the profile and stability of the supporting cliff face which will vary from site to site and will vary over time. Some cliffs exhibit long-term stability, with episodic landslide movement, others erode more continually. Changes to patterns are to be expected, especially in dynamic systems. Can be assessed from air photographs and site-based surveys and will need information on geomorphological aspects of cliffs. |

| Operational Feature | Criteria Feature | Attribute | Measure | Target | Comments |
|---------------------|------------------|--|---|---|---|
| | | Vegetation composition maritime grassland communities characteristic of the site | Presence of vegetation communities characteristic of maritime grassland. These are likely to consist of NVC communities MC8 to MC12 characterised by the dominance of <i>Festuca rubra</i> , with <i>Armeria maritima</i> , <i>Silene vulgaris maritima</i> , <i>Holcus lanatus</i> , <i>Plantago lanceolata</i> , <i>P. maritima</i> , <i>P. coronopus</i> , <i>Dactylis glomerata</i> , <i>Daucus carota</i> , <i>Rumex acetosa</i> , <i>Hyacinthoides non-scriptus</i> . Assess at least once per reporting cycle. | Maintain range of maritime grassland communities, taking account of natural variation. | Individual sites will exhibit different patterns and range of vegetation types depending on site characteristic and management history. Surveys may be needed to establish the full range for each site. Reference should be made to dates of previous surveys to assess which communities have been previously recorded on the site. Some of these communities can be difficult to assess because of their inaccessibility. |
| | | Vegetation of soft cliffs and other communities characteristic of the site | Vegetation composition of other communities forming a complex pattern reflecting different degrees and stages of instability, drainage and other physical characteristics. The components of this pattern may include wet flush/seepage/mire communities, scrub/woodland communities, ruderal and bracken communities. Assess at least once per reporting cycle. | Maintain range of transitions and other communities previously recorded on the site, taking account of natural variation. Targets will need to be set locally, taking account of the maritime influence and coastal processes | Vegetated sea cliff sites on soft geology in more sheltered locations are likely to support variants of wet flush/seepage/mire communities, scrub/woodland communities, ruderal and bracken communities, which may be subject to maritime influence. Some or all of these may also occur on relatively hard rock cliffs with a less extreme maritime influence. The diversity of habitats on sea cliff sites is promoted by the inherent instability of the substrate which maintains a range of seral stages. Reference should be made to dates of previous surveys to assess which communities have been previously recorded on the site. |

| Operational Feature | Criteria Feature | Attribute | Measure | Target | Comments |
|---------------------|------------------|--------------------------------|---|--|---|
| | | Vegetation negative indicators | Presence of negative indicator species including non-native species, invasive species indicative of changes in nutrient status and species not characteristic of typical communities. Assess at least once per reporting cycle. | No further increase in species not typically associated with the communities that define the feature. Local targets will need to be defined. These will vary from site to site and locally-significant species will need to be defined | Changes in the extent and cover of invasive species usually indicate a change in conditions on a site, often as a result of anthropogenic activities which may promote rapid expansion or increase in cover. Such species may include those identified as negative indicators for grasslands <i>e.g. Cirsium arvense, Senecio jacobaea, Urtica dioica</i> , together with non-native species. Some tall ruderal communities may be present naturally on a cliff site. |

Favourable Condition Table for Northumbria Coast European marine site (Extracted from JNCC website)

NB - Many of the attributes will be able to be monitored at the same time or during the same survey. The frequency of sampling for many attributes may need to be greater during the first reporting cycle in order to characterise the site and establish the baseline.

| FEATURE | SUB-FEATURE | ATTRIBUTE | MEASURE | TARGET | COMMENTS |
|---|------------------------|-------------------|---|---|---|
| Internationally important populations of regularly occurring Annex 1 and migratory bird species | All habitats | Disturbance | Reduction or displacement of birds | No significant reduction in numbers or displacement of wintering birds attributable to disturbance from an established baseline, subject to natural change. | Significant disturbance attributable to human activities can result in reduced food intake and/or increased energy expenditure Disturbance is minimised through wardening of the tern-breeding colony. |
| Internationally important populations of regularly occurring Annex 1 bird species | Shallow inshore waters | Extent of habitat | Area (ha) measured once during the reporting cycle. | No decrease in extent from an established baseline, subject to natural change. | Little terns feed in the shallow inshore waters and the Long Nanny estuary near the Low Newton colony. |
| | | Food availability | Presence and abundance of marine fish, crustaceans, worms and molluscs. Measured periodically (frequency to be determined). | Presence and abundance of food species during the breeding period should not deviate significantly from established baseline, subject to natural change. | Crustacea, annelids, sandeel and clupeidae are important for little tern. |
| | Sandy beaches | Extent of habitat | Area (ha) measured once during the reporting cycle. | No decrease in extent from an established baseline, subject to natural change. | Little tern nest on the beach at Low Newton, near the estuary of the Long Nanny. Enough sand should be present to ensure adequate nesting areas for the colony so they do not have to risk flooding. A beach height grading to >30cm above water level would be suitable. |
| Internationally important populations of regularly occurring Annex 1 bird species | Sandy beaches | Vegetation cover | Open ground with sparse vegetation and bare surfaces | Vegetation height throughout areas used for breeding should not deviate significantly from established baseline, subject to natural change. | Open areas maintained naturally. Vegetation cover (<10%) is required throughout the areas used for nesting |

| FEATURE | SUB-FEATURE | ATTRIBUTE | MEASURE | TARGET | COMMENTS |
|--|---|---------------------------------------|--|---|--|
| Internationally important populations of regularly occurring migratory species | Rocky shores with associated boulder and cobble beaches | Extent of habitat | Area (ha) measured once during the reporting cycle. | No decrease in extent from an established baseline, subject to natural change. | Important for feeding and roosting purple sandpiper and turnstone. |
| | | Food availability | Abundance of epibenthic invertebrates amongst rotting seaweed. Measured periodically (frequency to be determined). | Presence and abundance of food species during the wintering period should not deviate significantly from established baseline, subject to natural change. | <i>Balanus, Mytilus, Carcinus, Gammarus, Littorina, Nucella</i> , dipteran flies and kelp-fly larvae are important in the winter for purple sandpiper and turnstone. |
| | | Vegetation characteristics | Open, short vegetation or bare ground predominating | Vegetation height throughout areas used for breeding should not deviate significantly from established baseline, subject to natural change. | Open areas maintained naturally. Vegetation cover of <10cm is required throughout the areas used for roosting purple sandpiper and turnstone. |
| | | Absence of obstructions to viewlines. | Openness of terrain unrestricted by obstructions. | Visibility should not deviate significantly from established baseline, subject to natural change. | Areas with unrestricted views over >200m for purple sandpiper and turnstone to allow for early detection of predators when feeding and roosting. |
| | Artificial high tide roost sites | Extent | Presence of structure | No loss of favoured roost areas, subject to natural change. | Favoured artificial roost sites are River Tyne South pier and Seaham Harbour pier. |

APPENDIX 4 - SUMMARY OF SPATIAL OBJECTIVES AND PREFERRED OPTION POLICIES IN SUNDERLAND LDF CORE STRATEGY

Preferred Option Spatial Objectives

1. **Spatial Development and Regeneration:** To create a focused spatial distribution of employment, housing and other uses in the city via sustainable 're-modelling', prioritising areas for regeneration in the city where resources will be focused.
2. **Population growth.** To plan for sustainable growth of the city's population and to stem out-migration.
3. **Carbon Emissions and Energy.** To reduce carbon emissions in the city, towards a 80 percent reduction by 2050.
4. **Flooding and climate change.** To seek to reduce flooding and other climate impacts.
5. **Using previously developed land.** To maximise the reuse of PDL for a range of development uses, so as to minimise urban development of Greenfield land.
6. **Waste and recycling.** To increase the reuse and recycling of 'waste' in line with sub-regional responsibilities and plan for the most sustainable way of disposing of the remainder.
7. **Biodiversity and geological resource in the City.** To protect the city's biodiversity resource from both the direct and indirect adverse effects of development, and seek opportunities to enhance that resource.
8. **Accessibility and sustainable transport.** To enhance accessibility for all to a full range of facilities and jobs and to develop sustainable transport and reduced dependency on car use.
9. **Connecting the City.** To propose transport solutions that enhance the city's profile and economic competitiveness.
10. **Health.** To improve and protect citizens' health.
11. **Employment portfolio.** To develop economic prosperity by providing a wide portfolio of high quality employment sites 'fit for purpose' distributed to reduce the need to travel and to minimise Greenfield land-take.
12. **Employment sectors.** To support the development of key employment sectors and key employers in the city.
13. **Lifelong learning.** To ensure development of further facilities to enable 'lifelong learning'.
14. **Improving neighbourhoods.** To achieve sustainable, attractive and popular residential neighbourhoods throughout the city that are well integrated with schools, shops and services, community facilities and open space.
15. **Land for housing.** To ensure enough land for new housing is provided to achieve RSS allocation guidelines and targets for the reuse of PDL.
16. **Housing Choice.** To provide a range and choice of housing types and tenures for all, which are affordable, energy efficient, and designed and built to high standards.
17. **Protecting the countryside.** To protect and enhance the countryside, its landscape and areas of individual landscape character, including features associated with the River Wear, Sunderland Coast and the Magnesian Limestone Escarpment.
18. **Green infrastructure.** To ensure that all homes have good access to a range of green spaces linked across the city connecting major parks, the riverside, the coast and adjoining districts.
19. **City Centre and other Centres.** To expand and develop the city centre and city centre fringe into a vibrant and economically buoyant entity, whilst securing the viability and attractiveness of secondary and tertiary centres.
20. **Design and heritage.** To increase the contribution that urban design and valued cultural and heritage assets can make to the image of the city and the quality of life of its residents.
21. **Cohesive, inclusive communities.** To ensure that the physical development of the city accommodates the diverse needs of the city community's different groupings (including travelling communities), providing equal opportunities of access to a range of activities, housing and jobs, in safe environments.

Preferred Option Policies

- CS1: Spatial development, growth and regeneration
CS2: Sustainable Communities
CS3: Sustainable Development
CS4: Waste Management
CS5: Minerals
CS6: Central Sunderland
CS7: Sunderland South
CS8: Sunderland North
CS9: Washington
CS10: Coalfield