Strategic
Environmental
Assessment
Report for the 2015
AONB
Management Plan
Review

# Solway Coast AONB Partnership

Craggatak Consulting 15 August 2015





### THE CRAGG, SATTERTHWAITE Nr ULVERSTON, CUMBRIA LA12 8LW

01229 860269

enquiries@craggatak.co.uk www.craggatak.co.uk

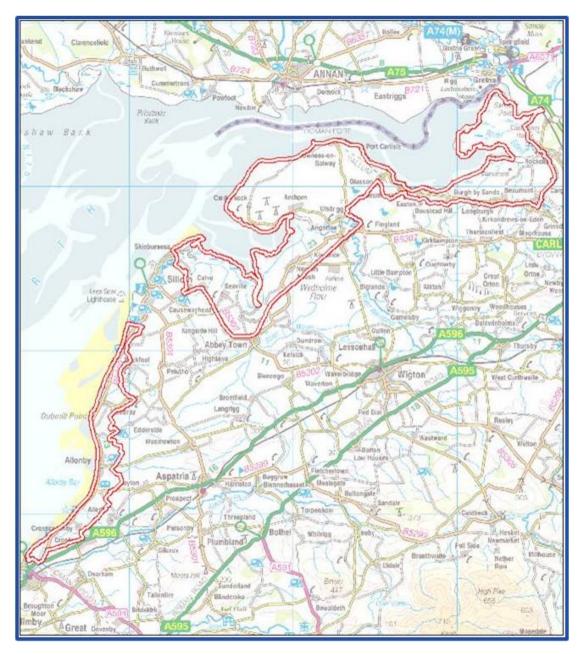
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### Acknowledgements

Craggatak Consulting prepared this report with the close support of staff from the Solway Coast Area of Outstanding Natural Beauty.



# **Map of the Solway Coast AONB**

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# **Strategic Environmental Assessment Non-technical Summary**

#### Introduction

This is a summary of the Strategic Environmental Assessment (SEA) of the Solway Coast Area of Outstanding Natural Beauty (AONB) Management Plan Review. Strategic Environmental Assessment is a legal requirement<sup>1</sup> to identify, describe and evaluate any significant environmental effects arising from implementing the management plan, or any reasonable alternatives. It highlights any significant beneficial effects and records any residual negative effects taking into account any mitigating measures. There are five stages to a Strategic Environmental Assessment:

Stage A: Setting the context, establishing the baseline and deciding on the scope

Stage B:Developing and refining options and assessing effects

Stage C: Preparing the Environmental Report

Stage D:Consultation with the public and consideration of the SEA findings by the decision maker; and

Stage E:Monitoring the significant effects of implementing the plan

The Solway Coast AONB Partnership has a legal duty to prepare and publish a management plan for the AONB<sup>2</sup>. The plan sets out a framework that gives guidance and direction towards achieving the long term Vision for the Solway Coast AONB. The management plan has a cascade of 17 Topics, 40 Objectives and 205 Actions, grouped under four themes.

#### **Environmental baseline information**

Baseline environmental information has been developed and refined since the start of the process in order to establish the context of the management plan and predict how the conditions would progress in the absence of that plan. The assessment uses 13 Environmental Objectives to represent the local environmental issues. They test whether the management plan objectives (or their absence) create adverse impacts on the special qualities of the Solway Coast AONB.

#### Summary of the appraisal

The proposed objectives are compatible. There are no tensions or sensitivities arising from where two or more objectives interact.

The proposed objective cascade has a beneficial, and in parts a significantly beneficial, effect on the SEA Environmental Objectives. This is particularly true in respect of the topics traditionally the concern of an AONB, such as landscape, biodiversity and heritage. Much of the plan relies on the application of national and regional initiatives. Seascape and concerns for the marine environment are particularly strong. Local actions tend to rely on awareness raising and advice rather than direct action. AONB Partnerships, by their nature, are skilled at collaborative working. Given the complexities of managing marine and coastal environments, the provision of good data and intelligence is likely to be the most effective use of limited resources.

There are no adverse effects on the SEA Environmental Objectives. Therefore, no mitigating actions are recommended.

<sup>2</sup> Section 89 of the Countryside and Rights of Way Act 2000

<sup>&</sup>lt;sup>1</sup> Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment". Transposed into law by Statutory Instrument 2004 No. 1633 The Environmental Assessment of Plans and Programmes Regulations 2004 (the "SEA Regulations"), http://www.opsi.gov.uk/Sl/si2004/sch1

The proposed objectives consistently give greater environmental and sustainability benefits than the 'do-nothing' situation. The policies are robust and can deliver a sustainable programme for the management of the Solway Coast AONB.

There is nothing in the management plan that will undermine the special qualities of the AONB. There is no conflict with objectives in one part of the plan with those in another. Implementation of the proposed management plan will have significant environmental and sustainability benefits for the Solway Coast AONB.

#### Monitoring

The SEA Regulations require monitoring measures for all the significant effects, both positive and negative, identified in the assessment. The SEA of the draft management plan has identified no significant negative effects that are likely to arise from the implementation of management plan. Some significant positive effects are likely to arise from the implementation of the plan. The assessment has also identified some areas of uncertainty over the significance of some of the predicted effects and monitoring has therefore been considered to cover these effects as well. The monitoring requirements will become a part of the State of the AONB Report. Sixty-nine indicators are proposed.

#### Consultation

The Scoping Report was subject to consultation in the summer of 2014 and responses were received from Natural England, the Environment Agency and English Heritage (now Historic England). The SEA objectives and baseline were updated accordingly. The Environmental Report was consulted upon in the winter of 2014. English Heritage agreed with the report. There was no formal response from Natural England or the Environment Agency and this was taken as an approval. However, in the light of responses to the draft management plan, the AONB Partnership revised some text and redrafted the objectives and actions. Consequently, there was a further assessment and this was sent to the agencies in May 2014. Natural England confirmed that it supported the conclusions. The results of these successive consultations and the responses to the consultation comments are in the Environmental Report.

A full version of this version of the SEA Report is available from The Solway Coast AONB Partnership.

## 1. Background

1.1. This Scoping Report has been prepared as part of the Strategic Environmental Assessment (SEA) of the Solway Coast Area of Outstanding Natural Beauty (AONB) Management Plan Review. The statutory consultation bodies (Natural England, English Heritage (now Historic England) and the Environment Agency) must agree the scope and level of detail to be contained in the Environmental Report. The SEA Scoping Report went out for consultation in September 2014 and was agreed by the environmental bodies by October 2014, subject to detailed comments. These comments have been taken into account in the drafting of this Environmental Report.

#### **Strategic Environmental Assessment**

- 1.2. Strategic Environmental Assessment is a statutory requirement<sup>3</sup> to ensure that land-use plans and programmes that are likely to have significant effects on the environment are the subject of a strategic assessment of options and alternative courses of action during plan preparation in order to avoid or mitigate any adverse effects. The approach for carrying out the SEA of the AONB Management Plan Review is based on current best practice and the following guidance:
  - HMSO, A Practical Guide to the SEA Directive, Office of the Deputy Prime Minister, Scottish Executive, Welsh Assembly Government, Department of the Environment for Northern Ireland, September 2005.
  - Natural Scotland, *Strategic Environmental Assessment Toolkit*. Scottish Executive. September 2006.
  - The Areas of Outstanding Natural Beauty in Wales Guidance on the Review of Management Plans, Countryside Council for Wales, 2008
  - Richard Partington et al, Guidance to English AONB Partnerships and Boards on Strategic Environmental Assessment (SEA) of AONB Management Plans, Natural England, January 2008
- 1.3. There are five stages to a Strategic Environmental Assessment:
  - Stage A: Scoping and consultation with Environmental Bodies
  - Stage B:Assessment of plan content and analysis of alternatives
  - Stage C:Preparation of an Environmental Report
  - Stage D:Consultation with the public and consideration of the SEA findings by the decision maker; and
  - Stage E:Monitoring the performance of the plan against the SEA findings.

<sup>&</sup>lt;sup>3</sup> Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment". Transposed into law by Statutory Instrument 2004 No. 1633 The Environmental Assessment of Plans and Programmes Regulations 2004 (the "SEA Regulations"), http://www.opsi.gov.uk/Sl/si2004/sch1

1.4. This report supports Stages B and C. The SEA Scoping Report consultation responses have been considered and used to inform relevant sections of the SEA Environmental Report (this document).

### **Purpose of the Environment Report**

- 1.5. This Environmental Report sets out the findings of the Strategic Environmental Assessment and Sustainability Appraisal for the Solway Coast AONB Management Plan review. Its primary purpose is to identify, describe and evaluate any significant environmental effects arising from implementing the management plan, or any reasonable alternatives. Any significant beneficial effects are to be highlighted, as well as recording any residual negative effects once mitigating measures are taken into account.
- 1.6. This assessment follows the requirements of the European Directive 2001/42/EC<sup>4</sup> and the Environmental Assessment of Plans and Programmes Regulations 2004<sup>5</sup>. The methodology used follows the guidance set out in paragraph 1.2.

### **Solway Coast AONB**

- 1.7. Designation of the Solway Coast Area of Outstanding Natural Beauty was in 1964. The designated area lies along 59km of the Cumbrian shore of the Solway Firth, between Maryport and Rockcliffe. It is split into two separate sections, as the town of Silloth is excluded. Covering an area of 115 sq km, this is a low, open and windswept AONB with wide views across to the hills of Galloway.
- 1.8. Physically part of the Solway Plain, the coast's characteristic feature is its continuous 7.6m raised beach. Silting along the estuary has left extensive marine deposits and the open foreshore strip now either consists of marine terrace with low, scrub-covered sandstone cliffs or undulating dunes. The falling tides expose wide sand stretches, intertidal mud-flats and, higher upstream, salt-marsh and peat moss, in a landscape with a sense of remoteness that is the essence of its value and character.
- 1.9. With varied habitats and rich feeding grounds, the estuary is of outstanding wildlife importance. Consequently, Sites of Special Scientific Interest give protection to 48% of the AONB. These include European Special Areas of Conservation (SAC), Special Protection Area (SPA) and a RAMSAR site (covering some 40% of the AONB). Glasson Moss National Nature Reserve is a part of the least damaged lowland raised mire in Britain.
- 1.10. The area has a rich historical and cultural heritage associated with its position on the Scottish border. Items of historical interest include Hadrian's Wall, a World Heritage Site, which extended as far as Bowness-on-Solway. Historical features from other periods include the 12<sup>th</sup> Century Holme Cultram Abbey, an Elizabethan sea dyke and salt pans; and the remains of the redundant Carlisle Canal and railway line.
- 1.11. This is a traditional agricultural area remote from large towns. Inshore fishing includes shrimping and cockles and the local village farming, by rotational cropping and grazing, has

<sup>&</sup>lt;sup>4</sup> European Directive 2001/42/EC "on the assessment of the effects of certain plans and programmes on the environment", known as the Strategic Environmental Assessment or SEA Directive.

<sup>&</sup>lt;sup>5</sup> SEA Directive, 2001/42 transposed into English law through the 'Environmental Assessment of Plans and Programmes Regulations 2004' (Statutory Instrument No 1633)

- evolved from the traditional Cumbrian pattern with its 'statemen' communities of farmers. Small, hedged fields are still a dominant feature in the landscape.
- 1.12. Tourism is an important, though relatively undeveloped, supplement to the local economy, concentrated in caravan sites at the small resorts of Silloth and Allonby. The AONB is a popular day trip destination for touring motorists from Carlisle, the West Cumbrian coast towns and Tyneside, and the shore road bears heavy peak season traffic. The Cumbria Cycle Way passes through the AONB and the regional footpath, the Cumbria Coastal Way, follows the foreshore and continues to Port Carlisle. The Hadrian's Wall Path National Trail runs through the north of the AONB.

#### The Distinguishing Qualities of the Solway Coast AONB<sup>6</sup>

The combination, sequence and contrasting scales of landscape types and the elements within them: the vast open expanse of sea, river channels, saltmarsh and intertidal flats; sand dunes, coastal mosses and areas of more sheltered agricultural hinterland. The character of the Solway Coast landscape is intricately linked to its coastal setting, its historical cultivation and land use and as a "frontier" between Scotland and England. The deeply rural setting of the AONB, which due to its isolation has remained relatively unchanged and undisturbed in character, contributes to the strong sense of remoteness, which is fundamental to the character of the area. The special scenic qualities of the AONB relate to the wide, open and distinctive views across the Solway Firth to the Scottish coast and the distinctive hill of Criffel, and to the northern Lakeland Fells that rise above the Solway basin to the south.

#### Management plan review

- 1.13. Section 82 of the Countryside and Rights of Way (CRoW) Act 2000 establishes the primary purpose of AONB designation as the conservation and enhancement of natural beauty. Section 85 of the CRoW Act places a duty on all public bodies to 'have regard' to the 'purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty'. Under Section 89, the 'relevant local authorities' must prepare and publish a management plan for each AONB. The management plan is a statutory document and presents an agreed agenda for the AONB, setting out objectives and policies for the local authorities, statutory agencies and people who live and work in the area. The plan does not dictate actions within the designated area and does not control agriculture, business or economic development activities but seeks to manage change positively.
- 1.14. There are three relevant local authorities for the Solway Coast AONB. They are Cumbria County Council, Allerdale Borough Council and Carlisle City Council. These councils have established a joint advisory committee under the Local Government Act 1972, section 102 (4) to manage their obligations for the AONB. Representatives of the three local authorities and a variety of public, private and voluntary sector bodies make up the Joint Advisory Committee.
- 1.15. The current AONB Management Plan is for the 2010-15 period. CRoW requires a formal review of each management plan at intervals of not more than five years. The Partnership is now preparing the 2015-2020 management plan. Following consultation with local communities, public bodies and agencies with an interest in the area, the management plan will present the special qualities and features of the AONB and determines what actions are required to ensure their conservation and enhancement.

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<sup>&</sup>lt;sup>6</sup> The Solway Coast AONB Landscape and Seascape Character Assessment, Land Use Consultants for the AONB Partnership (November 2010)

1.16. The plan sets out a framework that gives guidance and direction towards achieving the long term Vision for the Solway Coast AONB.

#### The Vision for the Solway Coast Area of Outstanding Natural Beauty

The Solway Coast AONB through active conservation and enhancement is an exemplar of well-planned and implemented sustainable development. The wild and remote parts of the coastline are protected and enhanced to include open marshes, wetlands and dune areas. Traditional boundaries form a complex mosaic throughout the farming hinterland, reinforcing historic field patterns and supporting a sustainable farming economy. The area's wildlife is abundant and habitats have been managed to reflect changes in climate and the wild nature of the area. Marine protected areas across the Solway Firth support a balanced estuarine ecosystem. The natural beauty and abundant wildlife found throughout the area have established the Solway as the best eco destination in the north of Cumbria.

People living in and visiting the Solway understand, enjoy and help protect the area through a network of trails supported by good information. People move around through a matrix of quiet lanes and routes by foot and on bikes. Traditional farmsteads and villages are complemented by new eco efficient buildings. Together they support a range of sustainable businesses that draw on and complement the special resources available in the area. Local services and high quality IT infrastructure support a vibrant community. Small scale renewables that complement the area's special qualities are found throughout the area and the peatlands and mudflats provide a natural active carbon sink.

- 1.17. A cascade of strategic and delivery objectives underpins the management plan, grouped under four inter-related themes:
  - Conserving and Enhancing Natural Beauty
  - Understanding and Enjoyment
  - 3. Social and Economic Well-being
  - 4. Engagement
- 1.18. The draft management plan contains 40 Objectives and 205 Actions across these themes. The full cascade is in **Appendix 1**.

#### Relationships with other assessments

#### **Habitat Regulation Assessment**

- 1.19. The EU Natura 2000 network provides ecological infrastructure for the protection of sites that are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species within the European Community. These sites, known as European sites, consist of Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Offshore Marine Sites. It is common practice to treat RAMSAR sites (Internationally Important Wetlands) as if they were European sites. The guidance recommends that European sites within a 10-15km buffer of the AONB boundary should be taken into consideration. The European sites within the Solway Coast AONB and within 15km of its boundary are:
  - Bolton Fell Moss SAC
  - Clints Quarry SAC
  - Raeburn Flow SAC
  - River Derwent (and Bassenthwaite Lake) SAC
  - River Eden and Tributaries SAC

- Solway Firth SAC
- Solway Mosses North SAC
- South Solway Mosses SAC
- Upper Solway Flats and Marshes SPA and Ramsar site
- Walton Moss SAC
- 1.20. Habitat Regulations Assessment is a statutory requirement<sup>7</sup> to ensure that the protection of the integrity of European sites is a part of the planning process at a regional and local level. Any plan or project not directly connected to the management of the European site but likely to have a significant effect upon it (either individually or in combination with other plans or projects) shall be the subject of an appropriate assessment of its implications for the European site in view of the site's conservation objective. The Solway Coast AONB Management Plan is the subject of an appropriate assessment.

#### An ecosystem approach

1.21. An ecosystem approach makes explicit the link between the status of natural resource systems and ecosystem services that support human well-being. It seeks to maintain the integrity and functioning of ecosystems as a whole to avoid rapid undesirable ecological change. It also recognises that the impacts of human activities are a matter of social choice, and are as integral to ecosystem interactions as ecosystems are to human activities.

#### **Definition of an Ecosystem Approach**

"a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way"

Convention on Biological Diversity definition<sup>8</sup>

This approach provides a way to manage nature that combines three core themes<sup>9</sup>:

- the ecology of the natural environment, including its functions and processes;
- the benefits that people get from the natural environment (ecosystem services); and
- the value of nature to society (in both monetary and non-monetary terms).
- 1.22. Applying an ecosystem approach to the management of protected areas is at an early stage. Expertise and data is only recently available. Building on a Natural England study of the Solway Basin<sup>10</sup>, a range of potential ecosystem services emerge for the Solway Coast AONB.

Council Directive 92/43/EEC of 21st May 1992 on the conservation of natural habitats and of wild fauna and flora. Transposed into law by the Conservation (Natural Habitats &c) (Amendment) (England and Wales) Regulations 2007 and the Conservation (Natural Habitats &c) (Amendment No 2) Regulations 2009
 Secretariat of the Convention on Biological Diversity (2004) The Ecosystem Approach, (CBD Guidelines) Montreal: Secretariat of the Convention on Biological Diversity 50 p.

<sup>&</sup>lt;sup>9</sup> Hunt, D. Crosher, I., Wharton, A. & Hayes, G. (2012). *Embedding the Ecosystem Approach into existing landscape scale or area based partnership delivery: Internal guidance for Natural England staff.* Natural England, November 2012

<sup>&</sup>lt;sup>10</sup> National Character Area Profile 6: Solway Basin, NE536 published by Natural England (2014)

#### **Provisioning services**

The products obtained from nature

- Food provision
- · Water availability

#### Regulating services

The benefits obtained from the regulation of natural processes

- Climate
- Coastal flooding & erosion
- Carbon sequestration

#### **Cultural services**

The non-material benefits people obtain from nature

- · Sense of place/inspiration
- Sense of history
- Tranquillity
- Recreation
- Health
- Biodiversity
- Geodiversity
- 1.23. The data is not yet available to enable a valuation of these services. However, even an initial assessment of ecosystem services affected by a policy choice can indicate how potentially significant impacts could be and where uncertainties and evidence gaps lie. Key indicators help monitor the condition of the ecosystem services. The effects of proposed or alternative actions on their status are considered.

### Relationship to other policies, plans and programmes

- 1.24. A key element in the SEA process is to review relevant international, national, regional and local policy guidance, plans and strategies, in order to:
  - Ensure the management plan proposals and the SEA are consistent with and comply with the requirements of relevant plans and policies, especially where they refer to environmental priorities;
  - Identify environmental objectives, key targets and indicators that should be reflected in the SEA;
  - Provide evidence for the SEA rationale.

The selection criteria were:

- International documents having the status of an EU plan, policy or programme
- National documents having the status of a national strategy or a White Paper outlining intended policy
- Regional and local documents having the status of strategy or policy
- Other documents not having a statutory status but policy documents published by the statutory bodies

**Appendix 2** presents a list of the documents reviewed. Full reference details and a brief assessment of each document are in the SEA Scoping Report.

#### Legislation, Conventions and national advice

- 1.25. Area of Outstanding Natural Beauty is a statutory landscape designation. The National Parks and Access to the Countryside Act 1949, as modified by the Countryside and Rights of Way Act 2000, provides the primary legislation for the designation of Areas of Outstanding Natural Beauty. From the Acts, a particular set of objectives is developed for AONBs<sup>11</sup>:
  - The primary purpose of designation is to conserve and enhance natural beauty.

<sup>&</sup>lt;sup>11</sup> Countryside Agency (2006), Guidance for the review of AONB Management Plans, CA221, Cheltenham, August 2006

- In pursuing the primary purpose of designation, account should be taken of the needs
  of agriculture, forestry, other rural industries and of the economic and social needs of
  local communities. Particular regard should be paid to promoting sustainable forms of
  social and economic development that in themselves conserve and enhance the
  environment.
- Recreation is not an objective of designation, but the demand for recreation should be
  met so far as this is consistent with the conservation of natural beauty and the needs
  of agriculture, forestry and other uses.
- 1.26. The European Landscape Convention was ratified by the UK in November 2006 and became binding on the 1 March 2007. The Convention aims to ensure the proper protection, management and planning of landscapes across Europe and aims to bring all countries up to the standard of the best.
- 1.27. In 2012, Defra and Natural England gave advice to AONB Partnerships and Relevant Authorities on management plan reviews in the form of a note. The note highlights four themes that may require some policy response. They are:
  - Natural Environment White Paper (NEWP) Many objectives of NEWP have direct relevance for Protected Landscapes. The Defra Biodiversity 2020 Delivery Plan also encourages large-scale initiatives in AONBs and has the milestone: AONB partnerships to integrate Biodiversity 2020 and ecosystem targets into all AONB Management Plan Reviews by March 2014.
  - Climate change mitigation –There is a need to assess the opportunities and threats to protected landscapes, given the progress made in renewable energy production and the development of adaptation measures.
  - **Setting of Protected Landscapes** There is a greater imperative to consider the effect of development in the setting of protected landscapes.
  - Historic Environment –Cultural features, particularly those of historic interest, can
    profoundly influence our perception of natural beauty. For this reason, it is
    appropriate for AONB Management Plans to include policies and provisions
    supporting conservation of the historic environment.

#### **Local Authorities**

1.28. The Solway Coast AONB falls within three local authority areas. They are Cumbria County Council, Allerdale Borough Council and Carlisle City Council. These councils are the local planning authorities and the 'relevant authorities' under the CRoW Act in respect of AONB Management Plans. Each council is required to produce a development plan to guide spatial change and growth within their area. These plans are either 'Structure Plans/Local Plans', 'Unitary Development Plans' or 'Local Development Plans'. Each has policies that respect the purposes of AONB designation but they also have wider social and economic duties.

#### **Government Agencies**

1.29. There is a range of Government Agencies whose actions impact upon the AONB. Their strategies set high-level policy and generally cover the whole of the country. Any mention of a

particular site, such as the Solway Coast, within these policies indicates the high national importance of the topic. The Environment Agency has an interest in the protection of inland surface waters (rivers and ponds), transitional waters (estuaries), coastal waters and groundwater in the AONB. This includes the quality and supply of water and flood defences. Around 48% of the area is protected for wildlife, with Natural England monitoring management. English Heritage has an interest in the Hadrian's Wall World Heritage Site and scheduled ancient monuments in the area.

#### 2. Environmental baseline information

#### Key local environmental trends

- 2.1. The SEA Directive requires detailed baseline information to be gathered as part of the assessment process. Information must be gathered on "relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan" and the "environmental characteristics of the areas likely to be significantly affected" (Annex I (b) & (c)).
- 2.2. The baseline data is also required to highlight "any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC (Birds Directive) and 92/43/EEC (Habitats Directive)" (Annex I (c)).
- 2.3. To assess future trends there is a need to establish a baseline. The AONB team maintains a State of the AONB Report that presents an assessment of the area's condition and the forces for change. For developing this SEA Report, we use the State of the AONB Reports, Natural England's State of the Environment (North West) Report, Natural England's Solway Basin National Character Area Profile and the evidence-base attached to the preparation of the local authority Local Development Plans. The key issues associated with the environmental trends within the AONB and the likely outcomes if no action is taken are shown in Appendix 3.
- 2.4. Baseline information was collected in line with the Schedule 2 of the SEA Regulations. During the SEA Scoping exercise, 69 key indicators found in the base-line table were grouped under 13 SEA topics identified as being of particular relevance to the environmental assessment. The 13 topics are:
  - 1. Landscape
  - 2. Biodiversity
  - 3. Historic and Cultural Environment
  - 4. Agriculture
  - 5. Air
  - 6. Water
  - 7. Climate Factors
  - 8. Access
  - 9. Material Assets
  - 10. AONB Population
  - 11. Human Health
  - 12. Communities
  - 13. Economy

The indicators are presented in **Appendix 4**.

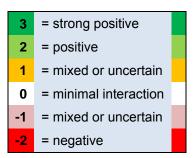
#### Relevant environmental problems

2.5. The State of the AONB Report assesses the current condition of the area's special features. For the SEA Assessment, nine SEA Environmental Objectives were developed. They represent the local environmental and sustainability issues and they will test whether the management plan policies (or their absence) create adverse impacts on the special qualities of the Solway Coast AONB. The key local environmental and sustainability indicators, complete with the associated issues, are shown in **Appendix 5**.

## 3. Environmental Assessment / Sustainability Appraisal

### Methodology

- 3.1. Step 1 is to consider the management plan draft text and test the compatibility of its objectives. The intent is to identify potential tensions or sensitivities where two or more objectives interact. The findings are collected in a Compatibility Matrix and summarised in a chart.
- 3.2. Each relationship is plotted as:



By assigning weighted scores to each item, it is possible to make comparisons. The scores are a percentage of the total score available for each item. The results appear as charts. A commentary on each option provides an assessment on its overall sustainability, highlighting particular areas of either positive or negative effect.

- 3.3. The consideration of the compatibility of the vision for the AONB and the defined special qualities of the area is a part of this stage. This is expressed as a Policy Cascade supported by a commentary.
- 3.4. Step 2 is to check each objective against the full range of SEA Objectives, as identified in the SEA Scoping Report. The intent is to measure the significance of the effect in terms of:
  - Beneficial or adverse effects;
  - Magnitude of the effects;
  - Reversible or irreversible effects.
- 3.5. The findings emerge in a Consistency Matrix. A plot of each relationship uses the same discipline as for the Compatibility Matrix. To simplify presentation, the proposed management plan objectives are assessed against the SEA Environmental Objectives by combining the consistency indices of their respective topic areas and expressing the total as a percentage of

- the total possible score. A commentary on each option provides an assessment on its overall sustainability, highlighting particular areas of either positive or negative effect.
- 3.6. As a part of this stage, a chart plots the relationships between the identified ecosystem services and the AONB policies; complete with a short commentary. There is insufficient data to attempt an assessment of the effects.
- 3.7. Step 3 is to consider **Alternative Solutions** to the issues identified during the management planning process. As there is no alternative solution published, we make a '**do-nothing**' comparison. The purpose is to show that the chosen pathway is the most sound in terms of the environment and wider sustainability. This analysis compares the proposed actions and the 'do-nothing' scenario against the effects of the environmental trends set out in Appendix 3 on the special qualities of the AONB and ecosystem services it delivers.
- 3.8. Finally, **Conclusions** are drawn and presented.

### Compatibility between management plan objectives

- 3.9. The first task was to confirm the links between the proposed themes, topics, objectives and actions of the management plan. The full list of objectives and actions is set out in Appendix 1. Topics lie tightly within specific themes. Generally, the objectives lie logically within topics though there are two exceptions. Objective 24 (To monitor and manage recreational pressure to avoid harmful impacts on the special qualities of the AONB) falls under the Tourism topic but would seem to link to Access and Recreation. Objective 27 (To ensure planning for housing is both appropriate to the needs of communities and has regard to the AONB character) lies in Employment and Business but seems better suited to Development and Planning. A number of the actions appear in whole or in part under a number of objectives. At times, this makes it difficult to gauge the achievement of an objective, as there is a disconnection. However, the linkages are clear and the plan is coherent.
- 3.10. The second task was to check each Policies and Objectives of the management plan against each other in a Compatibility Matrix to see whether there were any potential tensions or sensitivities arising where two or more interact. The full analysis the data set for the Objectives is in Appendix 6 and a snapshot of the chart helps illustrate the findings (Figure 1).

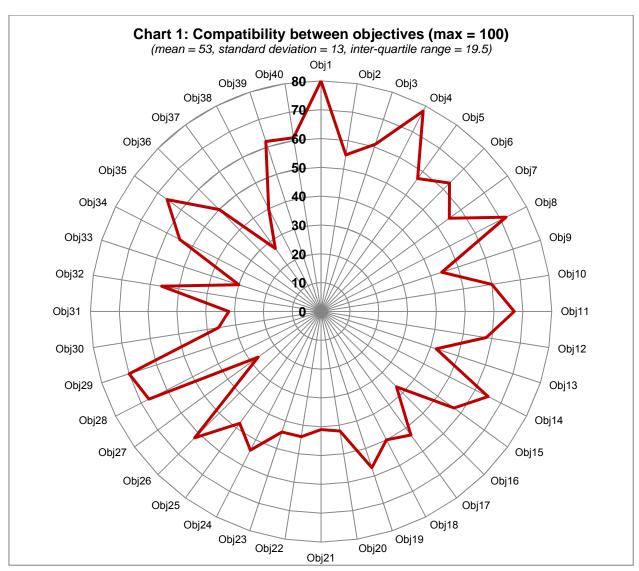
Figure 1: Snapshot of policy compatibility matrix

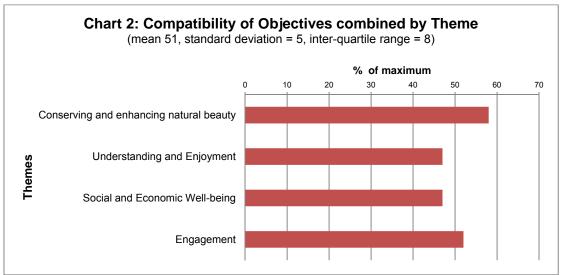
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natural beauty	Farming	0822			_	-	Н	+	-		+	Н	-		Н	+	Н		+		+			-		-	₩	_	+	_
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		08329				Т	п					П					П					П			Ħ		П		П	
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eing	1	08326										П			П	_	Ц		Ţ	Ц	Ţ					T.				
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		-08350																												

- 3.11. The distribution of the coloured squares is informative. The data runs both horizontally and vertically, so each interaction appears twice (appearing either side of the diagonal grey band). The bold red lines indicate the boundary between the management plan themes. Squares close to the grey band represent objectives that lie together in the plan. It is no surprise to find a high percentage of the dark green (strong positive interaction) squares along this axis. The striking impression is the small number of white squares (minimal interaction). This shows that there is a lot of interaction between the objectives with the services topic standing out as being the least interactive. There are two negative interactions marked. They are the links between climate change and biodiversity and climate change and development and planning. The concern is that objective 38 supports for the introduction of renewable energy facilities without a caveat to protect the special qualities or ecosystem services. Other objectives do offer mitigation. A Habitats Regulations Assessment will test the effectiveness of incombination effects where they affect the integrity of any protected habitats<sup>12</sup>.
- 3.12. An analysis of the data represented by Figure 1 is summarised in **Chart 1**. It is also useful to group the objectives by theme. This analysis is summarised in **Chart 2**.

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<sup>&</sup>lt;sup>12</sup> The Habitat Regulation Assessment will address these relationships to the satisfaction of Natural England.





3.13. Commentary: There are differences between the findings for the themes and those for the objectives. The themes show few tensions or sensitivities between them. Their mean score was 51 out of 100, with a standard deviation of only 5. The effect of the combined objectives ensures that the themes are well balanced. The objectives achieved a mean score of 53 out of

100 but with a much greater standard deviation at 13. The objectives show greater diversity them the themes because some have a narrow focus. Quite often, they are to achieve specific actions and only some seek to address crosscutting issues. **Chart 1** shows this clearly, there are some quite deep troughs. However, there are no negative or zero scores. In general, the objectives (in combination) work to support each other.

- 3.14. The objectives refer to the stated Special Qualities of the AONB (Appendix 1) and are compatible with their conservation and enhancement. Each element of the Vision (Appendix 1) cascades into the objectives; there are no omissions. The individual and collective aims of the objectives are consistent with the intent of the Vision.
- 3.15. As there is compatibility between all the themes and topic areas, there is no need to consider measures to reduce any tensions or sensitivities.

### **Consistency with Ecosystem Services**

- 3.16. The third task was to check each Policy of the management plan against the ecosystem services to see whether there were any significant beneficial or adverse effects. There is insufficient data to gauge the magnitude of that effect. **Figure 2** illustrates the findings. In this table, the bold red lines indicate the boundary between the management plan themes.
- 3.17. There are no negative effects and each ecosystem service receives some, albeit unmeasured, benefit. The landscape topic, and its objective, has the greatest consistency with the ecosystem services. This is no surprise. Two Services objectives (Objectives 30 and 31) do not interact with the identified ecosystem services. This is not a surprise because they are to do with communities and local facilities rather than the natural environment. The Biodiversity ecosystem services appear to receive the greatest support from the management plan though there is reasonable coverage for each service. This reflects the traditional approach in AONB management.
- 3.18. In future years, this type of analysis will be less subjective and benefit from valuation studies.

Figure 2: Relationships betw	Figure 2: Relationships between ecosystem services and management plan policies														
Provisioning services					egulatii service:		Cultural s				ervices				
Management Plan Topics	Objectives	Food	Water	Climate	Coastal	Carbon	Inspiration	History	Tranquillity	Recreation	Health	Biodiversity	Geodiversity		
Landscape	Obj1														
	Obj2														
Farming	Obj3														
	Obj4														
Saltmarsh	Obj5														
Sand Dunes	Obj6														
Lowland Raised Mires-Mosses	Obj7														
	Obj8														
Biodiversity and Geodiversity	Obj9														
	Obj10														

	Obj11						
	Obj12						
Water Environment	Obj13						
	Obj14						
	Obj15						
Historic Environment (and Culture)	Obj16						
Development and Discoring	Obj17						
Development and Planning	Obj18						
	Obj19						
Access & Recreation	Obj20						
	Obj21						
	Obj22						
Tourism	Obj23						
	Obj24						
	Obj25						
	Obj26						
Employment and Business	Obj27						
	Obj28						
	Obj29						
Services	Obj30						
Services	Obj31						
Transport	Obj32						
Transport	Obj33						
Awareness & Communication	Obj34						
	Obj35						
Community involvement	Obj36					,	
	Obj37						
	Obj38						
Climate Change	Obj39						
	Obj40						

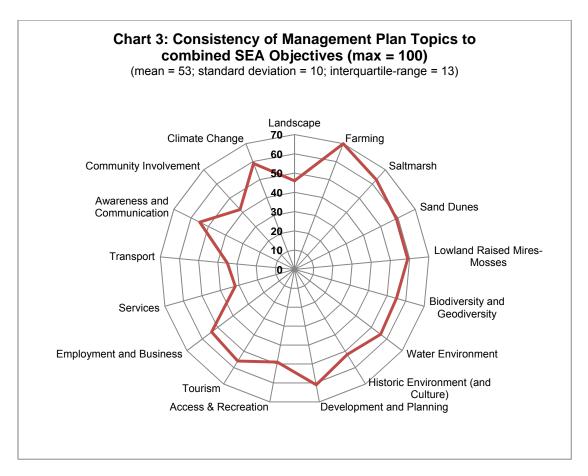
### **Consistency with SEA Objectives**

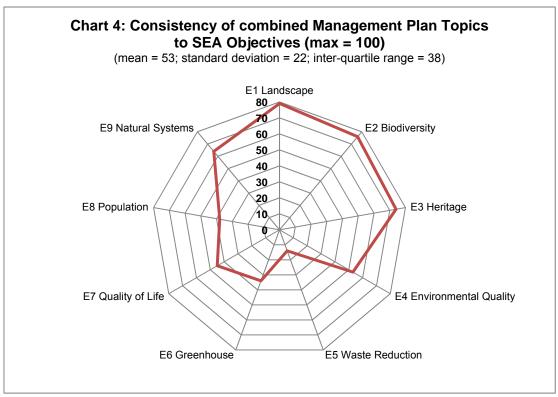
3.19. There was then a crosscheck of the proposed objectives of the management plan against the SEA Environmental Objectives in a Consistency Matrix. This was to see whether there were any significant beneficial or adverse effects and to gauge the magnitude of that effect. Where appropriate, there was consideration of whether the effect was reversible. The analysis is in **Appendix 7** and a snapshot of the chart (**Figure 3**) illustrates the findings. The bold red lines indicate the boundary between the management plan themes.

Figure 3: Snapshot of Consistency Matrix

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Conserving and	Landscape	-0031										
enhancing natural beauty	Farming	6832 6838	L			Ł						
	Saltmarsh	961	H	Н		+	-				_	
	Sand Ounes	9894	⊢	Н		-	-	_		Н	-	
	Lowland Raised Mires-Mosses	0857	L			+	-	-			_	
	Bodiversity and Geodiversity	0636					-				_	
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- 3.20. It is clear from Figure 3, given the distribution of coloured squares, that the AONB Objectives are reasonably consistent with the SEA Objectives with the possible exception of E5 (Waste reduction), which shows a number of white squares, and E8 (Population), which is a little more consistent. Unsurprisingly, there are strong links with the SEA Objectives E1 (Landscape), E2 (Biodiversity) and E3 (Heritage) as these tie closely with the purposes of AONB designation. There is one negative square. It is between E6 (Greenhouse gas control) and AONB Objective 11 (To ensure the conservation and protection of Marine Protected Areas and coastal dunes and marshes) because the introduction of alternative energy infrastructure could affect the marine environment without mitigation.
- 3.21. To simplify presentation, the assessment of each management plan Objective is under its respective topic area. This analysis is summarised in **Charts 3 and 4** (prepared from the summary Table in **Appendix 8**).





3.22. Commentary: There are no negative or zero impact scores. All the management plan effects are beneficial in respect of the SEA Objectives, with no adverse effects. As discussed below,

some objectives have a greater positive effect than others do. There is no need to consider measures to increase the beneficial effects.

- 3.23. The majority of the management plan objectives are nearly all equally consistent with the combined SEA objectives. The inter-quartile range by topic is 13, indicating a close range of scores. Services, Landscape, Transport and Climate Change fall into the first quartile. This is due to the narrow drafting of their objectives; they focus on specific actions rather than wider environmental issues. These effects are modified as the scores are generally high. The low placing for Landscape is a surprise, given the purpose of AONB designation. This partly a result of presenting the distinctive landscape types as separate topics.
- The SEA Environmental Objective E1 (landscape), E2 (biodiversity) and E3 (heritage) score the highest for consistency. This is not a surprise as it reflects the purposes of AONB designation. The lowest scores are for E5 (waste reduction) and E6 (greenhouse gas control). In part, these each relate to topics that are not under the direct control of the AONB. There may be opportunities to take a more proactive approach to climate change adaption and mitigation measures. Generally, the scores are reasonably high. The exception is for waste reduction; this is noticeably lower and is the cause of the large inter-quartile range (38). All other SEA Objectives achieve reasonably close scores.

#### Review of alternative policies

- 3.25. To meet with the requirements of the SEA Directive, the assessment needs to consider alternative options to determine whether the chosen pathway is the most sound in terms of the environment and wider sustainability. There is no record of any alterative options considered as a part of the management planning process.
- 3.26. In this situation, the approach is to compare effect of the proposed actions with a 'do-nothing' scenario informed by the trends identified in the SEA Scoping Report (as shown in Appendix 3). The task is to establish the environmental and sustainability benefits of the proposed objectives over the 'do-nothing situation. This comparison is set out in Appendix 9 with an assessment for each trend. The test is a comparison of the effects of proposed or alternative actions on the status of the special qualities and ecosystem services.
- 3.27. Commentary: The proposed objectives consistently give greater environmental and sustainability benefits than the 'do-nothing' situation. There is least benefit in matters associated with small-scale renewable energy projects and low carbon economies. These proposed objectives support new initiatives without tying them to maintain the special qualities. Objectives elsewhere in the management plan modify this effect. The objectives are particularly strong on biodiversity and associated cultural activities. This reflects well the traditions of the Solway coast.

#### **SEA Assessment**

- 3.28. The proposed objectives are compatible. There are no tensions or sensitivities arising from where two or more objectives interact.
- 3.29. The proposed objectives cascade has a beneficial, and in parts a significantly beneficial, effect on the SEA Environmental Objectives. This is particularly true in respect of the topics

traditionally the concern of an AONB, such as landscape, biodiversity and heritage. Not surprisingly, seascape and concerns for the marine environment are strong. Much of the plan relies on the application of national and regional initiatives. Local actions tend to rely on awareness raising and advice rather than direct action. AONB Partnerships, by their nature, are skilled at collaborative working. Given the complexities of managing marine and coastal environments, the provision of good data and intelligence is likely to be the most effective use of limited resources.

- 3.30. There are no adverse effects on the SEA Environmental Objectives. Therefore, no mitigating actions are recommended.
- 3.31. The management plan objectives are robust and, if applied together, will deliver a sustainable programme for the management of the AONB.
- 3.32. There is nothing in the management plan that will undermine the special qualities of the AONB. There is no conflict with objectives in one part of the plan with those in another. Implementation of the proposed management plan will have significant environmental and sustainability benefits for the AONB.

### 4. Monitoring

#### Monitoring of significant environmental effects

- 4.1. The SEA Regulations require monitoring measures for all the significant effects, both positive and negative, identified in the assessment. The SEA of the draft management plan has identified no significant adverse effects that are likely to arise from the implementation of management plan. Some significant positive effects are likely to arise from the implementation of the plan. The assessment has also identified some areas of uncertainty over the significance of some of the predicted effects and monitoring has therefore been considered to cover these effects as well.
- 4.2. There are likely to be several benefits in monitoring any environmental effects arising from the implementation of the management plan, including:
  - Identifying when action should be taken to reduce or offset any potential environmental effects of the plan;
  - Enhancing understanding of how the environment is changing in the AONB;
  - Tracking whether the plan has had any unforeseen environmental effects; and
  - · Providing baseline data for future SEAs.

The monitoring requirements of the SEA Regulations can be incorporated into the State of the AONB Report, which is already produced.

#### **Monitoring Measures**

4.3. The SEA Scoping Report identified 69 indicators to monitor the environmental effects of implementing the management Plan.

(Review awaiting consultation comments)

#### **Data limitations**

- 4.4. The Strategic Environmental Assessment uses a combination of quantitative information from a number of sources (e.g. National Statistics and commissioned studies) and qualitative assessment using considered judgement. The qualitative approach is robust, given the strategic nature of the management plan. Detailed quantitative information relating to the effects of the plan is likely only to be available at a later stage.
- 4.5. Monitoring data are often subject to changes in methodology or reporting that may prevent the establishment of trend data from a known baseline date. Trend data and targets are the significant data gaps and these affect certain topics; in particular, effective and up-to-date reporting on pollution emission trends and aspects of air, soil (including contaminated land) and water quality are lacking. Consequently, the effects of diffuse pollution and other environmental impacts, such as recreation damage, are often difficult to ascertain. The valuation of ecosystem services is a new discipline and data is not yet readily available. Indeed, there are still discussion on the best ways of securing a usable valuation. Funding cuts due to the recession may create additional burdens in terms of environmental monitoring and exacerbate this problem. The statutory agencies are seeking to address this issue with the development of the protected landscapes monitoring framework.

### 5. Technical review

5.1. The prime purpose of the SEA process is to review the potential impacts of the management plan on the key environmental aspects of the Solway Coast AONB. But there is also a requirement to monitor the implementation of the management plan and its impact on the environment over time. The baseline indicators (**Appendix 4**) were selected with this in mind. They are a part of the State of the AONB reporting.

#### Quality of existing baseline data

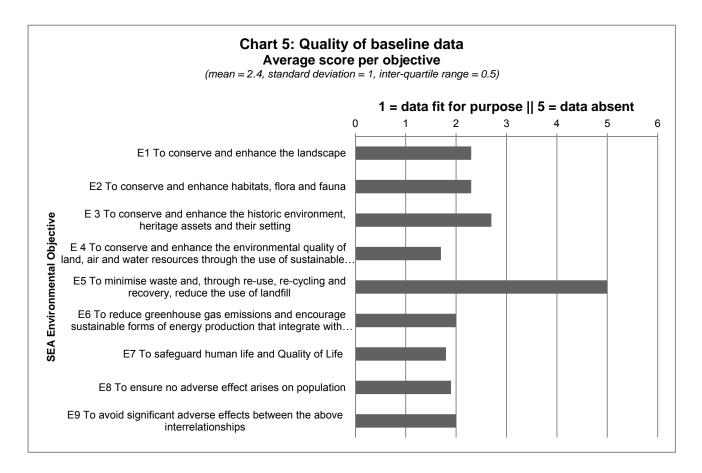
5.2. The assessment of the 69 SEA indicators is by a five-point quality scale. The analysis identifies where required data is weak or absent, so providing a framework for future data collection.

In	Indicator 5-point quality scale												
		Comment											
1	Fit for purpose												
2	Adequate	Some minor improvements desirable											
3	Indicative only	Not considered accurate											
4	Inadequate	Little relevance to the AONB											
5	Absent	No available data											

The full assessment of each indicator against the nine SEA Objectives is set out in **Appendix 10**.

5.3. Commentary: Of the 69 SEA indicators, 69% are shown as either 'fit for purpose' (42 indicators) or 'adequate' (5 indicators); whereas 22% (15 indicators) are not reported. The remaining 10% (7 indicators) are indicative.

- **5.4. Chart 5** shows the assessment for each of the nine SEA Objectives. As each SEA Objective has a different range of indicators, the plot is of the average score per Objective.
- 5.5. Data collection is to a high standard. Eight of the nine SEA Objectives have adequate or better monitoring data. Only E5 (waste) is in the inadequate monitoring range. There are no active waste disposal sites within the AONB but there is a Delivery Objective (24a) concerned with minimising waste and encouraging recycling. The local authority partners will hold data to support this objective.



#### Scope for new research

- 5.6. Two areas of work lend themselves to further study. As set out in paragraph 5.5, the collection of data concerning waste management will support the delivery of the management plan. This data will be easy to collect from the local authority partners. The weakness of monitoring data for these aspects is something that partners will want to address.
- 5.7. The second area is much more complex; an ecosystem approach. Natural England urges the AONB Partnership to follow an ecosystems approach for the management of the protected landscape. A part of this approach is to identify and value the ecosystem services delivered in the area. The Partnership is developing this approach but it is an emerging discipline. Methodologies and data are only just emerging. Partners will need to consider how to confirm and value the ecosystem services.

#### Conclusion

- 5.8. The management plan is developed through four themes. A cascade of objectives fall under these themes. The proposed objectives are compatible. There are no tensions or sensitivities arising from where two or more objectives interact.
- 5.9. The proposed objectives cascade has a beneficial, and in parts, a significantly beneficial, effect on the SEA Environmental Objectives. The majority of the objectives score highly against the consistency with the SEA Objectives.
- 5.10. When analysed in combination, the policies show the greatest consistency with the SEA Objectives to conserve and enhance natural beauty, biodiversity and cultural heritage; which is to be expected as this is the purpose of AONB designation. Seascape and concerns for the marine environment are particularly strong. The sustainability topics all receive positive treatment within the management plan.
- 5.11. There are no adverse effects on the SEA Environmental Objectives and so no mitigating actions are recommended. The proposed objectives give greater environmental and wider sustainability benefits than the alternative approach considered.
- 5.12. The overall assessment of the current baseline data is that it is very good. The only significant weakness is in the lack of data on community recycling and waste issues. The traditional concerns of an AONB are covered well (landscape character, biodiversity and heritage), as is the marine and coastal environment (a distinctive special feature of the AONB).

In conclusion: There is nothing in the management plan that will undermine the special qualities of the AONB. Implementation of the proposed management plan will have significant environmental and sustainability benefits for the Solway Coast AONB.

## 6. Response to Environmental bodies comments

6.1. The statutory consultation bodies are Natural England, Historic England and the Environment Agency. The SEA Environmental Report went out for consultation in December 2014 and a redraft went out in August 2015. The consultation bodies were supportive of the SEA approach and findings. The responses are set out in **Appendix 11.** 

# **Appendices**

# **Appendix1: Cascade of Managment Plan Objectives**

Distinguishing Qualities	The distinguishing qualities of the AONB are the combination, sequence and contrasting scales of landscape types and the elements within them: the vast open expanse of sea, river channels, saltmarsh and intertidal flats; sand dunes, coastal mosses and areas of more sheltered agricultural hinterland. The character of the Solway Coast landscape is intricately linked to its coastal setting, its historical cultivation and land use and as a "frontier" between Scotland and England. The deeply rural setting of the AONB, which due to its isolation has remained relatively unchanged and undisturbed in character, contributes to the strong sense of remoteness which is fundamental to the character of the area. The special scenic qualities of the AONB relate to the wide, open and distinctive views across the Solway Firth to the Scottish coast and the distinctive hill of Criffel, and to the northern Lakeland Fells that rise above the Solway basin to the south.
Special Qualities	The Solway Coast AONB contains a unique mosaic of coastal and pastoral landscapes set among a wide and low lying coastal plain and lying under the ever-changing drama of the dominant sky. The landscape is further enriched by the twice-daily influence of the tide that in turn reveals the rich birdlife, which use the estuary all year round.  The area is steeped in heritage from archaeological evidence of the Stone Age, through to Roman remains associated with Hadrian's Wall to the airfields of WWII.  The Solway Coast contains many locally, nationally and internationally important features, some centring on landscape and others on wildlife and heritage. Many features are protected by designations and collectively they indicate the high value of the area's heritage and underpin the need to protect and enhance it for future generations.
Vision	The Solway Coast AONB through active conservation and enhancement is an exemplar of well- planned and implemented sustainable development. The wild and remote parts of the coastline are protected and enhanced to include open marshes, wetlands and dune areas. Traditional boundaries form a complex mosaic throughout the farming hinterland, reinforcing historic field patterns and supporting a sustainable farming economy. The area's wildlife is abundant and habitats have been managed to reflect changes in climate and the wild nature of the area. Marine protected areas across the Solway Firth support a balanced estuarine ecosystem. The natural beauty and abundant wildlife found throughout the area have established the Solway as the best eco destination in the north of Cumbria.  People living in and visiting the Solway understand, enjoy and help protect the area through a network of trails supported by good information. People move around through a matrix of quiet lanes and routes by foot and on bikes. Traditional farmsteads and villages are complemented by new eco efficient buildings. Together they support a range of sustainable businesses that draw on and complement the special resources available in the area. Local services and high quality IT infrastructure support a vibrant community. Small scale renewables that complement the area's special qualities are found throughout the area and the peatlands and mudflats provide a natural active carbon sink.

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
Conserving and enhancing natural beauty	Landscape	and qualities of landscape and	hat the distincti of the Solway C d seascape are hanced and res	oast AONB understood,	1.1 Ensure that land management decisions are appropriate 13, e.g. through Agrienvironment (AE)

<sup>&</sup>lt;sup>13</sup> The yellow highlight indicates where the AONB Partnership has modified the text since the last assessment. Note: a few items are deleted.

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Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
Theme	Topic	Objectives	(Strategic)	(Delivery)	schemes, reinforce landscape character including the mosaic of sand dunes, lowland mosses, salt marshes and agricultural land 1.2 Support and facilitate the conservation of characteristic landscape features such as in-field barns, hedgerows, drystone hedge- kests, gatestoops and ponds through development management and environmental land management schemes 1.3 Develop landscape character area conservation guidelines for use by developers, AE advisors, etc.  1.4 Identify 'Indicators of Landscape Change' and establish a monitoring Scheme  1.5 Support the conservation of drystone hedge kests, North Cumberland Style Hedgelaying through training schemes and sandstone gate stoops by replacement projects  1.6 Monitor and act on tree and plant diseases, notably Chalara and Phytopthera, and other non- native invasive species which may have a significant impact on the landscape with Cumbria INNS strategy  1.7 Continue to wet up
					Cumbria INNS strategy
					management schemes 1.8 Develop guidance
					on management of rural roads, highway improvement schemes, signage and
					street/outdoor furniture appropriate to the AONB

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					landscape  1.9 Reducing the carbon footprint by achieving reductions in greenhouse gas emissions will help to reduce the degree and impact of climate change. This can be achieved through increasing energy efficiency, e.g. using appropriate forms of renewable energy, peatland restoration, reducing car use and using public transport, purchasing locally sourced food and services.
					1.10 Promote renewable energy sources that are complementary to AONB character  1.11 With AONB partnerships encourage and target the uptake of Agri-environment schemes within the AONB, with an emphasis on land management options that reinforce landscape character and support key attributes  1.12 Continue to underground overhead wires with Electricity North West and identify new areas for the next 15 years
					1.13 Ensure that proposals for National Grid's new power infrastructure seek to minimise impacts on the setting and views from the AONB through continued engagement of the Stakeholder Reference Group  1.14 Ensure that wind energy applications that affect the AONB or its setting are required to demonstrate that the Landscape and Visual

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					Impact Assessments have used the best available data and information and taken full account of the provisions of the National Planning Policy Framework regarding AONBs. Seek to ensure that visualisation work that supports such applications is submitted in accordance with the requirements of relevant good practice  1.15 Adopt the Cumulative Landscape & Visual Impact of Vertical Infrastructure – Assessment & Guidelines  1.16 Use the Solway Coast AONB Landscape and Seascape Character Assessment 2010, to comment on planning decisions to make informed decisions and responses regarding development.  1.17 Promote the importance of good soil management for carbon storage and water quality, ensuring that this resource protection is given priority within environmental land management schemes  1.18 Review and update the AONB Landscape and Seascape Character Assessment  1.19 Develop and deliver a programme of landscape monitoring linked to management plan indicators
	Farming	practices beco which the disti	nat sustainable ome the primary nctive farmland of much of the A	means by landscapes	2.1 Ensure that agriculture continues to contribute positively to conservation of the AONB's special qualities by providing bespoke advice and hands on

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					support to farmers and land managers to promote and encourage uptake of environment and land management grant schemes  2.2 Continue to wet up areas of farmland and lowland raised mires through water management and to deliver sympathetic management of key assets  2.3 Promote the importance of good soil management for carbon storage and water quality, ensuring that this resource protection is given priority within environmental land management schemes  2.4 Support farm diversification schemes where appropriate through AE schemes, RDP, LEP and development planning
		care for the lar qualities are a with opportuni	hat the skills red ndscape and its ppreciated and ties to acquire a de available to a	s special increased, and develop	3.1 Support the conservation of drystone hedge kests and North Cumberland Style Hedgelaying through training schemes, and sandstone gate stoops by replacement projects, which raise local awareness.
		which conserv resources, inc landscape cha environment-a	ural land manages and enhance luding biodivers tracter and the land which aids per he AONB and is sustainable.	es natural sity, historic public	4.1 Support the conservation of characteristic landscape features such as in-field barns, hedgerows, drystone hedge- kests, gatestoops and ponds through development management and environmental land management schemes 4.2 Monitor and act on tree and plant diseases, notably Chalara and Phytopthera, and other non- native invasive species which may have

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					a significant impact on the landscape in conjunction with Cumbria INNS strategy 4.3 Use AE schemes to support populations of farmland birds on land under arable management 4.4 Support NAAONB and other bodies' lobbying for CAP reform which benefits farming and wildlife
	Saltmarsh	and managem for its unique of	he effective content of the saltment acter, speciating coastal pro	arsh habitat alist species	5.1 Ensure that saltmarsh management continues to contribute positively to conservation of the AONB's special qualities by providing bespoke advice and hands on support to farmers and land managers to promote and encourage uptake of environment and land management grant schemes 5.2 Retain grazing systems that provide conditions for key species and allow natural development of the marshes 5.3 Ensure sustainable management of natural resources and, whilst raising awareness of disturbance to breeding birds 5.4 Conserve the Inner Firth Intertidal Flats for nature conservation for SPA/SAC status and restore areas of reclaimed farm land to marshes where possible 5.5 Monitor changes in sea —level and coastal erosion to determine any trends or patterns and if possible to manage the process
	Sand Dunes		hat organisatior r the conservati		6.1 Encourage integrated designation

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
Theme	Topic	enhancement dunes deliver	(Strategic) of the natural b appropriate acti enjoyed sensiti	eauty of the ions and that	management to help ensure the objectives of differing designations do not conflict with objectives for the Upper Solway Flats and Marshes SSSI, Solway Firth SAC/ SSSI and Silloth Dunes and Mawbray Bank SSSI 6.2 Work with Parish Councils and landowners to close informal car parks on the dunes but maintain main car parks 6.3 Continue to work with Allerdale Borough Council and other landowners to manage the dunes for key species (Natterjack Toad) and allow natural development through AE schemes 6.4 Promote the positive development of England Coast Path whilst ensuring any changes or development is in line with the landscape management of the AONB and dune management 6.5 Monitor access to the dunes by mussel fisheries and discourage travellers from settling along dune areas to prevent further erosion 6.6 Implement relevant fishery orders to effectively manage shellfishing activity from the sand dunes and ensure potential impacts on the AONB are minimised. 6.7 Promote use of
					Hadrian's Cycleway whilst ensuring any changes or development is in line with the landscape management of the AONB and dune management

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					6.8 Deliver appropriate land management related adaptation and mitigation actions identified in the Shoreline Management Plan2
					6.9 Provide a work force using the Solway Coast Community Volunteers and other groups to help with basic management of the dunes, invasive weed removal, gorse and scrub removal.
					6.10 Provide clear and adequate information and signage for users of the dunes to respect the delicate nature of the dune system and its wildlife, and behave accordingly.
					6.11 Continue to work in partnership with Electricity North West in undergrounding more 11kv overhead lines to improve visual amenity 6.12 Work with
					landowners maintain favourable condition of the Grune dune system, and where feasible seek to restore grazing management on the Silloth-Allonby dune system
	Lowland Raised Mires-Mosses		ontinued creations on time of the contract of	,	7.1 Support research into peatland hydrology, vegetation cover, grazing, biodiversity, carbon storage and the historic environment. Use research findings to guide peatland management
					7.2 Continue the restoration and rewetting of the peatlands and associated farmland, to reduce carbon loss and rebuild organic content of soils 7.3 Continue to manage the lowland wetlands

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					and pasture that delivers benefits from biodiversity and sustainable farm business, in particular measures that support key species such as breeding waders
					7.4 Work with Planning Authorities to control inappropriate developments such as wind turbines that affect the skylines along the open views from the peatlands
					7.5 Continue to restore lowland raised bogs by restoring appropriate hydrology for their biological value, historic value and as a climate regulator by both securing the storage of carbon in peat and by enabling sequestration of Carbon dioxide from the atmosphere
					7.6 Continue the restoration of site hydrology involving removal of recently established woodland and scrub and continue to block drains on the moss surface
					7.7 Increase visitor awareness of the role the mosses play through continued appropriate access development (boardwalk), interpretation, Campfield Barn Visitor Centre provision, viewing platforms, school visits, visitor activities and other social media information
					7.8 Continue to use AE schemes to incentivise appropriate management and partnership working.

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Theme	Biodiversity and Geodiversity	8: To ensure the enhancement, connectivity of ecological networks.	ne conservation expansion and habitats, creati works across th nd beyond with	enhanced ng resilient e Solway	8.1 Ensure that 95% of the AONB's SSSIs are in favourable or recovering condition by 2020 and take appropriate action to bring those SSSIs that are currently in recovering condition into favourable condition, so that at least 50% of SSSIs are in favourable condition by 2020 8.2 Carry out condition monitoring of the AONB's Local Wildlife Sites and aim to deliver positive management on all sites by 2020 by providing bespoke advice and support, negotiating management agreements and securing environmental land management or other grants 8.3 Carry out research into habitat connectivity that is applicable to the intimate scale of the AONB landscape 8.4 Develop a more conservation friendly management of roadside vegetation to enhance the wildlife and landscape value of verges and highway margins and link to B-lines proposals and government pollinator strategy 8.5 Retain, improve and
					<u> </u>
					8.6 Demonstrate improvements in the AONB Partnership's ecosystem approach to landscape management through use of criteria

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					based check lists 8.7 Develop an AONB Biodiversity 2020 Local Delivery Plan
					8.8 Ensure that any plans, projects and actions take into account the conservation objectives of, and where possible seek to enhance, European designated sites within and adjacent to the area
					8.9 Carry out regular condition monitoring of the AONB's SSSIs
					8.10 Retain, improve and expand priority freshwater wetland habitats including wet grassland, wet woodland (lagg), peatlands and reedbed within and around the AONB, in particular the programme of lowland peatland and wetland restoration
					8.11 Conserve and enhance priority coastal habitats including saltmarsh, coastal and floodplain grazing marsh, maritime cliffs and slopes, vegetated shingle, coastal sand dunes and mudflats
					8.12 Promote connectivity by providing linkages, corridors and stepping stones in the landscape
					8.13 Support research into peatland hydrology, vegetation cover, grazing, biodiversity, carbon storage and the historic environment. Use research findings to guide peatland management
					8.14 Develop new opportunities to enhance, restore and connect priority habitats

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					8.15 Support the continued work of biological records centres
					8.16 Implement conservation grazing on appropriate sites to
					manage areas of saltmarsh, sand dunes and other areas of herbrich pasture by
					supporting appropriate conservation grazing initiatives  8.17 Maintain favourable
					conditions of habitats and heritage sites and habitat networks to make ecological
					systems as robust as possible to climate change, using policy drivers such as the Natural Environment
					White Paper.  8.18 Develop and deliver an enhanced programme of monitoring where the need is identified
					8.19 Develop and deliver an Initiative to provide connectivity of pollination habitat Actions to achieve this
					8.20 Develop and support conservation and research initiatives with a focus on NERC section 41 priority
					species  8.21 Develop and deliver new funded programme of wetland
					management at target sites to conserve the Marsh Fritillary butterfly and associated species
					8.23 Develop a list of species characteristic to the AONB to include internationally, nationally
					and locally important species and relevant
					management actions to benefit them, taking note

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					of sensitive areas e.g. high tide roosts and natterjack ponds
					8.24 Support and implement appropriate Species Recovery Programmes, following good practice guidance for species release and (re)introduction
					8.25 Secure sustainable fisheries and shell fisheries management for the benefit of coastal species and habitats
		spread of inva (INNS) and pla	the establishme sive non-native ant diseases, ar adicate populat	species nd where	9.1 Co-ordinate an invasive and non-native species assessment, both marine and on land, and establish a rapid follow-on programme to act on the findings
					9.2 Develop programmes of activity to encourage eradication of Himalayan Balsam, Japanese Knotweed, Giant Hogweed and other INNS within the AONB as part of wider initiatives
					9.3 Establish a rapid response plan and programme of activity to report, monitor and raise awareness of biosecurity and INNS within the AONB, also working with Solway Firth Partnership for the marine species
					9.4 Protect and monitor tree health with a focus on <i>Chalara</i> and <i>Phytothphora</i> through implementation of tree surveys and disease action plans, and monitor health and diseases for amphibians and reptiles
					9.5 Contribute to monitor grey squirrel control in accordance

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					with recognised red squirrel conservation strategy and guidance from the Red Squirrels Northern England Partnership  9.6 Continue to raise awareness of invasive non -native species of animals and plants and increase vigilance to prevent establishment of invasives where possible, through leaflets and ongoing volunteer activity
		importance in the landscape and biodiversity of the AONB.			10.1 Carry out condition monitoring of geological SSSIs in the AONB to ensure they are in favourable condition 10.2 Ensure that no features of interest are lost to development or unsympathetic land management including RIGGS
			the conservation flarine Protected and marshes.		11.1 Conserve and enhance priority coastal habitats including saltmarsh, coastal and floodplain grazing marsh, maritime cliffs and slopes, vegetated shingle, coastal sand dunes and mudflats 11.2 Raise awareness
				of the risks of trampling and disturbance on Honeycomb Reefs in the proposed Allonby Bay Marine Protected Area	
	Water Environment		freshwater cou nanaged and th		12.1 Implement Catchment Management Plans for the area's main rivers, linked to Solway Tweed River Basin Basin Management Plan and the AONB Management Plan (actions include achieving good water body status, reducing bankside erosion, reducing run-off into rivers, improving

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					watercourse management and favouring natural solutions over engineered) 12.2 Expand and improve programme of water quality monitoring in and around the AONB under the requirements of the WFD enabling appropriate measures to be defined and delivered to meet WFD targets
					12.3 Deliver improved standards of water quality for all river catchments that feed into the Solway Firth ensuring that the Solway Tweed River Basin Management Plan reflect the importance of the estuary and its designated wildlife sites 12.4 Develop new opportunities to tackle issues of point source pollution from the outflow of effluent from septic tanks, also agricultural point-sources and diffuse groundwater pollution due to agricultural activity and other forms of nitrogen enrichment 12.5 Implement the Catchment Sensitive Farming initiative within the AONB, in the Wampool and Waver
			sustainable lar hat regulates fl		Priority Catchments  13.1 Secure sympathetic management of the diverse array of high quality wetlands both inside and outside designated sites, including lowland raised bogs, coastal and floodplain grazing marsh 13.2 Engage with prospective Internal Drainage Board (IDB) to

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					influence its aspirations and ensure best practise watercourse management is promoted and implemented by an IDB.  13.3 Expand priority freshwater wetland habitats including wet grassland, peatlands and reedbed within and around the AONB, in particular the programme of lowland peatland and wetland restoration that meets quality thresholds.  13.4 Work to secure sustainable floodplain management in the AONB and its catchment to regulate downstream flooding, including increasing the capacity of the floodplain to regulate flows and store water
		the delivery of Directive by in	a significant con the Water Fran aproving water of atus in and arou ast.	nework quality and	14.1 Investigate and resolve with United Utilities, bathing water quality issues at Allonby Bay North
	Historic Environment (and Culture)	and managem AONB historic historic buildin	the effective content of the Solw environment, in gg, archaeologicapes and herit	ay Coast ncluding ical sites,	15.1 Conserve and enhance the important sites and features linked to cultural heritage and surrounding cultural landscape with particular reference to Hadrian's Wall, Hadrian's Wall buffer World Heritage Sites and the historic Holme Cultram Abbey 15.2 Promote increased awareness of the Roman and Cistercian Solway through improved interpretation and archaeology research (SWP) 15.3 Continue to promote awareness of
					the surviving historic landscape both the built features and associated

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					landscapes through improved access, rights of way network including long distance paths and cycleways
					15.4 Work with agencies (ECOSAL) to conserve and maintain the Crosscanonby Saltpans and others in the AONB
					15.5 through training schemes protect and restore traditional buildings and develop the skills to restore them using traditional techniques, including cobbles, clay dabbin and local sandstone
					15.6 Through training and competitions protect and restore field boundary features such as North Cumberland Style hedgelaying and dry stone hedge kest building, ditching and gatestoop replacement projects
					15.7 Improve and identify the location and the documentation of historic sites that are at threat from loss through inappropriate management and secure sympathetic land management at these sites
					15.8 Provide an improved visitor experience of, understanding of, and enjoyment of the AONB's natural and historic heritage and engage the local community in its future management through events celebrating its traditional management
					15.9 Continue to improve interpretation of historic sites through both on site information and the use of web base resources and mobile

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					technologies 15.10 Promote Haaf Fishing as a sustainable and traditional method of sea fishing for salmonids 15.11 Work with the custodians of Hadrian's Wall Heritage Site to monitor and preserve the Buffer Zone and Wall itself
		and public kno	an increase in owledge and un- historic enviror	derstanding	16.1 Work with Development Planners to maintain local vernacular styles in new developments and to ensure the layout of new developments reflect local settlement structure 16.2 Establish projects which empower local people to record and celebrate what's special to them about their local
				historic environment 16.3 Arrange workshops and other events primarily aimed at local landowners, farmers and land managers to raise awareness of the historic environment and good practice in its management, based initially on Cistercian Monastery sites in the AONB	
	Development and Planning	AONB and its in all Local Pla documents an	the special qua setting are fully in (National Pla d decision mak re regard to the Plan	respected ns) ing	17.1 Establish robust detailed policies in local plans and neighbourhood development plans which support the purpose of AONB designation. Such policy should - reflect the national importance of AONBs and prioritise the conservation of tranquillity, wildness and remoteness, local distinctiveness and landscape quality and

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					character. It should also protect the AONB from the adverse effects of development in its setting. Produce a dedicated DPD for any aspect development in the AONB  17.2 Support the development of parish, community and neighbourhood plans to include a strong focus on the conservation of the natural and cultural heritage of the Solway Coast AONB  17.3 Continue to comment on all planning and development
					proposals which may have a significant impact on the purpose of AONB designation or which may provide opportunities for enhancement, and comment on emerging policy in any draft local plan consultation or review  17.4 Work with other partners to resolve potentially conflicting management needs of coast, ecology and archaeology, particularly at the Roman Cemetery at Beckfoot and Crosscanonby Saltpans
		AONB and its scale, location community needs	that developme setting, is of a r and design so ed without com alities of the So	nature, that it meets promising	18.1 Ensure robust detailed policies in local plans and neighbourhood development plans support the purpose of the AONB designation, and reflect the national importance of AONBs, to conserve local distinctiveness and landscape quality and character  18.2 Support the development of parish, community and

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					neighbourhood plans to include a focus on the natural and cultural heritage of the Solway Coast AONB
					18.3 Comment on all development proposals which may have a significant impact on the purpose of AONB designation or which might provide opportunities for enhancement, and comment on emerging policy in any draft local plan consultation or review  18.4 Support the retention of local services to support community life  18.5 the AONB partnership about new road management and improvement schemes in the AONB  18.6 Influence any proposals to minimise/negate any negative impacts with the Solway Energy Gateway Scheme for a Solway Barrage
Understanding and Enjoyment	Access and Recreation	opportunities of access with so information ab	that a wide ran exist for all to ga ound infrastructi out the AONB t special qualitie	ain physical ure, and o	19.1 Work with Cumbria County Council Rangers to maintain and improve the rights of way network, with the assistance of volunteer
					activity 19.2 Continue to work with Natural England and Local Authorities to develop and deliver safe and well informed coastal access
					19.3 Deliver the England Coast Path within the AONB, working with owners and partner organisations to plan and implement an extended route which does not have significant detrimental

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					impacts on key historic, geological and biodiversity assets 19.4 Encourage safe access for all to the lowland peat bogs through provision of boardwalks and up to date information at Campfield Marsh Visitor Centre
		access and qu	n, improve and iet recreational n a sustainable of people.		20.1 In collaboration with other lead organisations, provide walkers and cyclists on the Hadrian's Wall walking and cycling routes local information 20.2 Encourage the promotion of all forms of access via leaflets, interpretation panels, social media, web based information to increase the awareness of the vast opportunities of Access for All in the AONB 20.3 Encourage and promote access via public transport where possible and by engaging local transport firms to provide more regular rural services
		<u>understanding</u>	age and promo , well informed he coast and A	access and	21.1 Promote with other agencies and partners the Countryside Code for considerate countryside behaviour, and information about any restrictions to access on sensitive wildlife sites at certain times to avoid disturbance to wildlife or breeding animals. 21.2 Encourage dog owners to control their dogs closely and effectively (particularly on the intertidal zone, saltmarsh and farmland) and clean up after their dogs, by providing signage and raising

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					awareness of the effects of disturbance of wildlife and farm animals 21.3 Promote coastal safety by ensuring effective signage is in place particularly around Allonby Bay
					21.4 Encourage coordinated activity to tackle wildlife crime
					21.5 Encourage appropriate use of bridleways and the network of quiet roads and lanes by cyclists
					21.6 Identify the need to develop a unified strategy towards the provision of information and signage so that there is no duplication or wasted resources or proliferations of signage
	Tourism	industry and a environmental and actively so of the Solway benefits to the	the developing ssociated econoly sustainable, I upports, the special Coast AONB are community and ognisable brand	omy is based on, ecial qualities nd brings d has a	22.1 With other destination management organisations develop a single destination management plan for the AONB with a consistent and recognisable brand 22.2 Work alongside local businesses to improve their environmental and 'green' credentials and visitor payback schemes 22.3 Promote locally produced food and other products to reinforce
					local distinctiveness and add value to the local economy 22.4 Work with Cumbria Tourism and the Local enterprise Partnership to implement a sustainable visitor strategy for the AONB 22.5 Continue to work with Cumbria ACT, other partnerships and local businesses to improve

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					between communities in the AONB and promote tourism opportunities  22.6 Through partnership working promote the peatlands as an important destination for wildlife and a unique habitat.  22.7 Establish events programmes for residents, day visitors or tourists celebrating aspects of community or cultural heritage  22.8 Seek ways to obtain added value from users of the national trails that pass through the AONB  22.9 Use the 'Walk Unlimited' website or similar sites including the AONB website, to provide information on national trails and to promote local businesses that offer services to visitors
		management,	an increase in tourism, hospitation to help secrea.	ality and	23.1 Continue to work with English Heritage, Holme Cultram Abbey, custodians of Hadrian's Wall, Tullie House and other heritage organisations to promote sustainable management of heritage assets in the AONB 23.2 To provide outdoor education through the Solway Wetlands Partnership project and its legacy of partnerships to promote the special qualities of the AONB
		pressure to av	and manage rooid harmful impes of the AONB	acts on the	24.1 Market and promote the AONB and its special qualities and accessibility on an upgraded AONB website, including prearrival marketing, also monitoring uptake of

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					enquiries 24.2 Through the promotion of public transport, reduce the number of other vehicles using the limited parking facilities on the coast within the AONB
					24.3 Promote alternative means of transport within the AONB such as cycle hire, tramper hire, with looped access routes promoted in leaflet production
					24.4 Improve the infrastructure of parking areas for visitors through further provision of bins, furniture, surfacing and interpretation panels highlighting the special qualities of the area
Social and Economic Well- being	Employment and Business	funding such a sustainable fa implementatio	that access to as AE, will supp rming practices n of identified m e conservation	ort and support neasures	25.1 Promote locally produced food and other products to help reinforce local distinctiveness and support local product development
					25.2 Through the NAAONB's influence, including Natural Environment White Paper Initiatives, ensure that investment is targeted at supporting land managers
					25.3 Provide bespoke advice and practical support to encourage landowners and managers to apply for grants through the environmental land
					management scheme and other rural development schemes
					25.4 Through grants and advice, support farm diversification which increases economic sustainability and helps to conserve and enhance the natural

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					environment including sensitive renovation of traditional barns
		access training skills base in s purpose of des	opportunities a g and employme ectors related t signation such a and sustainable	26.1 Deliver and host an annual programme of land management and rural skills training and events including North Cumberland Style Hedgelaying and dry stone kest facing, to landowners, contractors and those working in the countryside of the AONB	
					26.2 Continue to work with Cumbria ACT, other partnerships and local businesses to improve working relationships between communities in the AONB and promote tourism opportunities 26.3 Work with Coastal communities Schemes (and FLAG) where possible to promote coastal businesses and sustainable tourism 26.4 Work with partners and organisations to deliver high-speed broadband to support tourism and farm businesses and improve their outputs ensuring the sensitive siting of necessary infrastructure
		appropriate to	planning for ho the needs of co d to the AONB	ommunities	27.1 Promote best practise in design and influence local authorities to provide suitable housing developments which do not have an adverse impact on tranquillity or on traditional village structure 27.2 Continue to respond to property development applications from the Local Authorities within the AONB. Also to

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					developments outside the AONB boundary, such as wind turbines, that could have a significant impact and adverse effects on the AONB landscape
					27.3 Engage with local communities in their Neighbourhood Plans with regards to the special quality of the AONB
					27.4 Establish robust detailed policies in local plans and neighbourhood development plans which support the purpose of AONB designation. Such policy should - reflect the national importance of AONBs and prioritise the conservation of tranquillity, wildness and remoteness, local distinctiveness and landscape quality and character. It should also protect the AONB from the adverse effects of development in its setting
		economy base support of, the	e sectors to develon the valuing key attributes on the valuing the sectors to develop the sectors at the sectors and that makes are sectors.	g of, and of the AONB	28.1 Work with businesses and organisations such as Cumbria Tourism, Cumbria ACT, NFU, to facilitate projects that support sustainable growth in the AONB whilst valuing the key attributes of the landscape 28.2 Provide clear, accurate and positive messages about the
		00 T			special qualities of the Solway Coast AONB that can be used in marketing literature
		opportunities f special qualitie	maximisation o or the AONB's o es and manager ral economic gr	designation, ment to drive	29.1 Involvement in projects which encourage further development of nature

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					and culture based attractions, including Campfield Barn, Holme Cultram, Senhouse Museum, Tullie House Museum 29.2 Support Green Business networks and others on economic and environmental benefits of greening business 29.3 Promote seasonal activities, such as bird watching, walking and cycling and promotion of nature/culture based activities/packages in the AONB to extend the visitor season from the traditional summer window by supporting niche markets 29.4 Engage with Cumbria Local Economic Partnerships to develop new opportunities to facilitate growth linked to the natural environment
	Services	services and a	the current level access to those ed and enhance oport sustainable	services by ed where	30.1 Promote local services, businesses and products in all AONB communications including the AONB website and publications delivered in and around the AONB  30.2 Support local businesses and services which contribute to the AONB objectives through project funding or other sources of external funding  30.3 Work with the Local Authorities and Cumbria County Council to retain and promote local services  30.4 Provide training, through the AONB Partnership, for developing skills around services linked to its special quality, such as tourism, traditional skills

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					and environmental skills 30.5 Use the NAAONB network to identify information share case studies to learn more from other AONBs 30.6 Support the retention and expansion of local services to support community life. Apply the AONB Partnership's Sustainable Development Fund (where budgets allow) and other funds to suitable projects
		improvements broadband and	age infrastructu to achieve sup d mobile phone of the AONB wit erse impact.	erfast coverage	31.1.Support positive action to achieve the roll-out of superfast broadband, ensuring the sensitive siting of necessary infrastructure 31.2 Support positive action to improve mobile phone signal within the AONB, ensuring the sensitive siting of necessary infrastructure 31.3 Work with partners and organisations to deliver high-speed broadband to support tourism and all businesses and services and improve their outputs ensuring the sensitive siting of necessary infrastructure
	Transport	AONB are res design, provisi	the special qua pected in the pl on and manage port and associa	anning, ement of all	32.1 Consult the AONB Partnership about new road management and improvement schemes in the AONB and link to the next round of Local Transport Plans 32.2 Encourage the Local Highway Authority through the SMP process to identify a long-term solution to storm damage on the coastal B5300 road 32.3 Through partnership working with

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					the Highways Department, introduce lorry routing schemes away from the B5300 and other quiet roads. 32.4 With Highways authorities develop and undertake audits of excessive cluttering of transport signage and that any signage should be in keeping with the special qualities of the AONB, including traditional finger posts. 32.5 Facilitate roll out of 20mph speed limits within villages while ensuring signage is appropriate to its setting 32.56 Engage with Highways Departments, Local authorities and Parish councils on road infrastructure improvements and signage within the AONB 32.7 Consult the AONB Partnership about management and maintenance of Rural Roads and new improvement schemes in the AONB
		promote walking transport and	opportunities a ng, cycling and enhance schem ovide an alterna e.	public les where	33.1 Promote walking and cycling through AONB Partnership guides and publications and ensure that user infrastructure provision ensures the Coast Path and Hadrian's Wall Trail and Cycleway are effectively supported 33.2 Engage with Sustrans in initiatives under Local Transport Plans to stimulate better use of public transport and cycling events. Integrate with hub sites, such as The Wave in Maryport, as a centre for electric cycle hire and point for integration of

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					public transport network 33.3 Work with partner organisations to enable more buses to be run over the weekend period from Carlisle to Bowness on Solway, enhancing Hadrian's Wall walkers ability to travel more frequently 33.4 Develop and promote walking and cycling loops that integrate with public transport 33.5 Work with Local Councils to promote opportunities in the AONB at key public transport 'get on points'. 33.6 Link events and activities to available local transport wherever possible, e.g., volunteer events and workdays 33.7 To further extend the Hadrian's Cycleway off-road section between Allonby and Maryport, north of Allonby towards Silloth
Engagement	Awareness and Communication		fostering a comulture linked to to the place		34.1 To research, monitor, analyse and address data gaps by developing data sharing protocols with key partners and improve GIS capability in the AONB team.  34.2 To be involved in the BARS2 process of wildlife data gathering  34.3 Maintain a high quality AONB website as the key information resource for visitors, local residents, partner organisations and other relevant audiences, ensuring it is accessible, customer focussed, well designed and regularly updated, and has interesting and stimulating content

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					34.4 Continue to pursue highway signage with the AONB England's Solway Coast logos beyond the AONB boundary 34.5 Continue to produce interpretative leaflets, booklets, AONB Coaster and 2 monthly newsletters to inform the wider public of the special qualities of the AONB, including material produced by the wider partnership 34.6 Promote the importance of Holme Cultram Abbey, peatlands, and other unique areas of the AONB through activities with schools and groups within and outside the AONB 34.7 Maintain an active social media presence and promote events, activities and stories through the media 34.8 Deliver talks and presentations as needed on the special qualities and works of the AONB Partnership and establish events programmes for visitors and residents to celebrate community or cultural heritage
	Community Involvement	become involv the AONB thro	local communit ed in the custor ugh engaging v and support of k	dianship of with	35.1 Build the capacity of community-based projects linked to natural and cultural heritage through grant aid and in kind support  35.2 Establish oral history projects focusing on peatland and farming history  35.3 Develop and support projects which give communities, networks and individuals opportunity to express what their 'place' means

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
Theme	Topic	Objectives	(Strategic)	(Delivery)	to them e.g. through the Solway Wetlands Landscape Partnership 35.4 Develop a successor to the Archaeology programme carries out in the Solway Wetlands Landscape Partnership 35.5 Develop new opportunities for people to participate in survey, monitoring and handson conservation activities for the natural and historic environment 35.6 Develop a Junior or Youth Rangers programme to engage involve young people in new ways, and optimise opportunities from linking with the Europarc Federation network.  Seek funding to maintain a schools programme 35.7 Develop opportunities to promote volunteering as part of corporate social responsibility
					responsibility programmes 35.8 Continue to run events and workdays for the Solway Coast Community Volunteer Group and other partners, including beach litter picks and land management on reserves and SSSI's in
					the AONB 35.9 Seek opportunities to extend stewardship of natural environment to new areas
					3510 Continue to promote volunteering in the AONB through partnerships and seek best practise for volunteers and activities carried out in the conservation of the area 35.11 Actively engage

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					with communities within the AONB to help identify local issues and develop solutions, whilst conserving and enhancing the special qualities of the local natural and built environment 35.12 Continue to promote walking, cycling, wildlife watching and other healthy recreational activities through the AONB website, leaflets, social media and electronic media
			t local communi ls sustainable k	36.1 Promote alternative forms of transport such as walking, cycling, and public transport where available, as a means of moving about in the AONB	
					36.2 Promote, where appropriate small scale renewable energy schemes to help contribute to energy reduction targets
					36.3 Promote energy and water efficiency measures in any new development within the AONB
					36.4 Promote reduction of car use and using public transport where possible, and purchasing locally sourced food and services
		through waste	less waste is pa minimisation a rials generated	37.1 Encourage recycling schemes in AONB villages and continue with beach litter picks with local communities and volunteers	
	Climate Change	AONB are red consumption, a measures, end	carbon emissic uced by reducir applying energy couraging more velopment, and	ng energy conserving sustainable	38.1 promote renewable energy sources that are complementary to the AONB character 38.2 Continue to work

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
		technologies t	ergy generation hat are of an ap e for their siting	propriate	with planning authorities on matters relating to housing development, wind turbine development and possible Solway Barrage 38.3 Promote energy and water efficiency measures in any new development within the AONB 38.4 Continue to restore lowland raised bogs by restoring appropriate hydrology for their biological value, historic value and as a climate regulator by both securing the storage of carbon in peat and by enabling sequestration of Carbon dioxide from the atmosphere
		sustainably in practice to mir pollution and r drought service		h best ind water nce to	39.1 Continue to work with partners and volunteers to deliver ongoing habitat enhancement and stability 39.2 Implement Catchment Management Plans for the area's main rivers, linked to River Basin Management Plans and the AONB Management Plan (actions include achieving good water body status, reducing bankside erosion, reducing run-off into rivers, improving watercourse management and favouring natural solutions over engineered)
		managing coa	ith SMP2 policy stal change and agement of coas	d securing	40.1 work with partners to address coastal squeeze as part of the delivery of SMP2 and also embrace adapting to coastal change along the Outer coast.  40.2 Work with partners

Theme	Topic	Objectives	(Strategic)	(Delivery)	Actions
					to secure coastal management regimes that mitigate impacts, eg through agrienvironment schemes to allow saltmarsh accretion and land level rise to offset sea level rise  40.3 Work with partners to manage access to the coastal zone so that
					fragile 'barrier' habitats are not damaged comprising their coastal protection function
					40.4 Work with partners to reduce the need for unsustainable infrastructure in the coastal zone
					40.5 Raise awareness of the inevitability of coastal change through partnership literature and media articles

## Appendix 2: List of relevant plans and policies

#### INTERNATIONAL

Ramsar Convention on Wetlands of International importance, especially waterfowl habitat (1971)

UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)

Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

Bonn Convention on Conservation of Migratory Species (1979)

Rio Declaration of Environment and Development 1992

The Convention on Biological Diversity (The Rio Convention) (Adopted June 1992)

Kyoto Protocol to the United Nations Framework Convention on Climate Change (Adopted December 1997)

The World Summit on Sustainable Development, Johannesburg (2002)

Copenhagen Accord United Nations Climate Change Conference (2009)

### **EUROPEAN**

The Birds Directive (Directive on Conservation of Wild Birds) (Adopted 1979)

The Convention for the Protection of the Architectural Heritage of Europe Council of Europe (121) 1985

European Convention on the Protection of the Archaeological Heritage (revised 1985)

Nitrates Directive (91/676/EEC) (1991)

The Habitats Directive (Directive on the Conservation of Natural Habitats and Wild Fauna and Flora) (1992)

The Landfill Directive (1999)

The Water Framework Directive (2000)

The Strategic Environmental Assessment (SEA) Directive (2001)

The Environmental Noise Directive (2002)

The Public Access to Environmental Information Directive (2003)

Aarhus Convention (1998, ratified February 2005)

The Landscape Convention 20 October 2000 (ratified by UK in November 2006)

Renewed EU Sustainable Development Strategy (June 2006)

The Waste Framework Directive (2008)

Marine Strategy Framework Directive (2008)

Our life insurance, our natural capital: an EU biodiversity strategy to 2020, European Commission (2011)

### **NATIONAL Legislation**

Protection of Wrecks Act 1973

Ancient Monuments and Archaeological Areas Act 1979

The Wildlife and Countryside Act 1981 (as amended)

Planning (Listed Buildings and Conservation Areas) Act 1990 (as amended)

Countryside and Rights of Way (CRoW) Act 2000

Sustainable Energy Act 2003

Secure and Sustainable Buildings Act 2004

Traffic Management Act 2004

Natural Environment & Rural Communities Act 2006

Climate Change Act 2008

Marine and Coastal Access Act 2009

The Flood and Water Management Act 2010

Localism Act 2011

The Conservation (Natural Habitats) Regulations 1994 (Habitats Regulation) as amended 2010

Rights of Way Circular (1/09) Guidance for Local Authorities (Defra 2009)

Agricultural Waste Regulations Defra (2006)

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National Policy Statements for Energy Infrastructure (DECC 2011)

National Planning Policy Framework (CLG 2012)

Enterprise and Regulatory Reform Act 2013

**UK Marine Strategy Part 1** 

### **NATIONAL Policies, Strategies and Plans**

Securing the Future – UK Government Sustainable Development Strategy (Defra 2005)

Sustainable Farming and Food Strategy: Forward Look (Defra 2006)

The Air Quality Strategy for England, Scotland, Wales and Northern Ireland Defra (2007)

Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment (English Heritage 2008)

Circular on the Protection Of World Heritage Sites (DCLG 07/2009)

Water for people and the environment - Water Resources Strategy for England and Wales, Environment Agency 2009

The Rural Development Programme 2007-2013 (Defra amended 2009)

Safeguarding our Soils - A Strategy for England (Defra 2009)

Code for Sustainable Homes (CLG 2009)

Green Infrastructure Guidance (Natural England 2009)

Mainstreaming sustainable development – The Government's vision and what this means in practice (Defra 2011)

Biodiversity 2020: A strategy for England's wildlife and ecosystem services (Defra 2011)

Government Review of Waste Policy in England 2011 (Defra 2011)

Water for Life, the Water White Paper (Defra 2011)

Understanding the risks, empowering communities, building resilience: National flood and coastal erosion risk management strategy for England, Environment Agency (2011)

Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen (DfT 2011)

The Carbon Plan (DECC 2011)

Strategic Framework for Tourism in England 2010 – 2020 (Visit England 2011)

Enabling Development and the Conservation of Significant Places English Heritage (2008 -revised 2012)

The National Heritage Protection Plan (2011 – 2015) (English Heritage 2012)

Local Authority Heritage Assets: Current Issues And Opportunities - Report to English Heritage and the Heritage Lottery Fund - by *Green Balance* with *Grover Lewis Associates Ltd 2012* 

The Setting of Heritage Assets, English Heritage 2011 (revised 2012)

UK Forestry Standard (Forestry Commission 2011)

UK Bioenergy Strategy (DECC 2012)

Annual Energy Statement (DECC 2012)

Creating a sporting habit for life, A new youth sport strategy (DCMS 2012)

'The Natural Choice', the Natural Environment White Paper (Defra 2012)

Healthy lives, healthy people: Improving outcomes and supporting transparency (DH 2012)

Independent Panel on Forestry Final report, Defra (2012)

Realising nature's value: The Final Report of the Ecosystem Markets Task Force Defra (March 2013)

Government Forestry and Woodlands Policy Statement - Forestry Commission (Defra 2013)

Cleaner coasts healthier seas, Working for a better marine environment, Our strategy for 2005-2011 Environment Agency 2005

Marine Policy statement Defra 2010

National Planning Policy Guidance - Conserving and enhancing the historic environment 2014

#### **REGIONAL**

State of the natural environment in the North West, Natural England 2009

Creating a better place 2010–2015 North West Local Contribution Environment Agency

Water for life and livelihoods - North West River Basin Management Plan Environment Agency 2009

Cumbria Community Strategy 2008 to 2028 Cumbria Strategic Partnership

Cumbria Climate Change Strategy 2008-2012, Cumbria Strategic Partnership

Business Plan, Key Priorities - Cumbria Local Enterprise Partnership 2013

The Four Pronged Attack, Cumbria Strategic Economic Plan 2014–2024, Cumbria Local Enterprise Partnership (2014)

Frontiers of the Roman Empire World Heritage Site, Hadrian's Wall Management Plan 2008-2014 Hadrian's Wall Heritage Ltd

Making the Dream a Reality - The Tourism Strategy for Cumbria 2008-2018, Cumbria Tourism 2008

Destination Management Plan 2012 – 2014 Cumbria Tourism

The Cumbria Biodiversity Action Plan Cumbria Biodiversity Partnership (2001)

Cumbria Freshwater Bio-security Plan, 2011 – 2015, Dec 2011

Green Infrastructure to Combat climate Change. A Framework for Action in Cheshire, Cumbria, Greater Manchester, Lancashire and Merseyside, 2011, prepared by Community Forests Northwest for the Northwest Climate Change Partnership

Research and Archaeology in North West England: An Archaeological Research Framework for North West England Volume 2 Strategy

Frontiers of Knowledge A Research Framework for Hadrian's Wall, Part of the Frontiers of the Roman Empire World Heritage Site) Volume 1 Resource Assessment. Edited by: Matthew F A Symonds & David J P Maso

#### **LOCAL**

Cumbria Minerals and Waste Development Framework Core Strategy and Generic Development Control Policies Development Plan Documents, Cumbria County Council, adopted 23 April 2009.

Cumbria Landscape Character Guidance and Toolkit, Cumbria County Council 2011

Moving Cumbria Forward Cumbria Transport Plan Strategy 2011-2026 Local Transport Plan

Cumbria Rights of Way Improvement Plan Cumbria County Council (2007)

Cumbria Sustainability Strategy Cumbria County Council 2004

Cumbria Historic Environment Strategy, Cumbria County Council 2005

Cumbria's Economic Ambition; Cumbria County Council's Role in Delivering a Thriving Economy, Cumbria County Council

Cumbria Economic Strategy 2009 – 2019 Cumbria Vision February 2009

A Cultural Strategy for Cumbria, Cumbria County Council, 2003

Cumbria Countryside Access Strategy 2005

Cumbria Wind Energy Supplementary Planning Document 2007

Cumbria Renewable Energy Capacity and Deployment study (2011)

A Draft Local Geodiverstity Action Plan for Cumbria, Cumbria RIGS, 2008

Solway, Border and Eden Local Action Group Local Development Strategy (2014–2020) Cumbria County Council (2014)

Allerdale Local Plan First Alteration June 2006

Allerdale Local Plan (Part 1) Pre-Submission Draft Allerdale Borough Council May 2013

A Strategy for Tourism 2005-2015, Allerdale Borough Council, August 2005

St Bees Head to River Sark Shoreline Management Plan by Bullen Consultants Limited for Allerdale Borough Council

Carlisle District Local Plan 2001-2016 Written Statement Carlisle City Council, September 2008

Rural Strategy Action Plan Review Carlisle City Council September 2004

# Appendix 3: Outline of future trends in the Solway Coast AONB

Forces for Change	Outcomes without mitigating actions
Setting	The setting of an AONB is the surroundings in which the area is experienced. If the quality of the setting declines, then the appreciation and enjoyment of the AONB diminishes. Construction of a distant but high structure; development or change generating movement, noise, odour, vibration or dust over a wide area; or a new understanding of the relationship between neighbouring landscape assets may all extend what might previously have been understood to comprise the setting.
	Views are one element of setting, being associated with the visual experience. Views are particularly important to the AONB because of the low flat landscape and seascape. Recreational users value them. Without management, views within, from and to the AONB may be lost or degraded. Some views will be more important than others. Any development in the Solway Firth is likely to have an impact on views from the coast (e.g. wind turbines).
Tranquillity	Tranquillity will be lost with an increase number of turbines, traffic, caravan parks, street lights and overhead aircraft.
Climate change and globalisation	Increase in renewable energy technologies and their scale can degrade visual impressions of the AONB. There may be new agricultural crops due to global warming. Increase in storm and erratic weather patterns will erode and damage the soft coastline and sea defences that protect the B5300 road. There may be an effect on biodiversity, the historic environment and access. Resurrection of lowland peat bogs to restore carbon sink
Damage to the Historic environment	Hadrian's Wall, listed buildings, HERS, traditional barns, farms, walls, villages and their traditional character are at risk from inappropriate development, arable cultivation and coastal erosion. There is a lack of consistent and current information about the conditions of the historic environment.
Biodiversity	The management of water, wetlands and drainage has a significant effect on biodiversity in the AONB. Characteristic habitats and some species are in decline or are being lost due to farming changes (including land drainage and watercourse management), climate change influences, colonisation by invasive non-native species, inappropriate management and development pressures. There may be a lack of landscape scale approach to improving habitats. There is limited knowledge of overall biodiversity of the AONB due to a lack of recorders and the scale of the task.
Plant diseases	More tree pests and diseases possibly linked to climate change and global trade, travel and imported plants leads to the spread of diseases
Changes in Agriculture	All sectors face changes due to the changing CAP, climate change, market variation and possible diseases. Farm diversification can lead to changes in farming practises. Changing economies can lead to different crops being grown that change the landscape and affect farmland biodiversity. Intensification of farming can lead to changes in land ownership giving larger fields (hedges may be lost but there is some control under the Hedgerow Regulations). Increase in Local Food Marketing may deliver a greater variety of crops. There may be a loss of bees and pollinators due to neocotinoid use if not prohibited.
Loss of traditional skills	Limited perceived value in rural skills, walling, hedge-laying, leads to changes in landscape and associated habitats.
Development	Pressures due to land use changes inside and outside the AONB, to provide economic and social balance and maintain AONB character, affordable housing, local facilities and services, public transport needs in rural area, barn conversions. Need for sustainable tourism related developments, telecommunications, new National Grid developments and network undergrounding, and broadband networks will all have landscape impacts.

Many small scale changes some not regulated by planning controls	Permitted development - village in-fill and inappropriate building design, with agricultural barn extensions, cow shed proliferation, aquaculture, poultry farm buildings increasing in size, and building in village conservation areas will have a significant accumulative effect.
Marine Planning	Development of Marine Protected areas will be beneficial to biodiversity and geodiversity. The effect of wind turbines in the estuary is unknown but they may affect migratory birds. There is a landscape/seascape impact in views across Solway. Marine Invasive Non-Native Species do have an adverse impact on biodiversity but there is monitoring on both sides of the Solway estuary. Mussel beds are now open and there is a possible adverse impact on biodiversity / geodiversity of the dune and foreshore with little local economic impact.

# Appendix 4: Key indicators and data sources

SEA Topic	Key Indicator	Source	Ecosystem service
Landscape	<ol> <li>Local Landscape / Seascape Character Assessments</li> <li>Extent, condition and change in characteristic landscape features.</li> <li>Fixed point photography</li> <li>Light pollution maps</li> <li>Tranquillity index</li> <li>The uptake of selected Environmental Stewardship options that contribute towards the good condition of landscape elements and/or landscape character</li> </ol>	AONB Local Authorities Natural England Defra	Sense of place / inspiration Tranquillity
8. The area of priority BAP habitats and the % under favourable management  9. The condition of broad BAP habitats in SSSIs  10. The favourable conservation status of European protected species  11. Population and distribution of locally important species  12. Population and distribution of non-native invasive species  13. The area of deciduous woodland plus the area of Forestry Commission estate  14. The area managed under Environmental Stewardship  15. The average annual values of current Environmental Stewardship agreements  16. The area covered by the England Woodland Grant Scheme (WGS), plus		Commission Local Authorities	Biodiversity Geodiversity
the area of ancient woodland in WGS  Historic and Cultural Environment  17. Changes in the Historic Landscape Character  18. Number of heritage assets, including listed buildings, scheduled monuments, registered parks & gardens, registered battlefields and undesignated assets  19. Heritage at Risk – both statistics e.g. % of heritage assets 'at risk, plus GIS datasets under licence  20. Number of conservation areas and % of the AONB covered by designation  21. % of conservation areas in the AONB with an up-to-date character appraisal  22. Improvements in the condition of historic and archaeological sites and features		English Heritage Local Authorities	Sense of place / inspiration Sense of history
Agriculture	23. Main land uses (classification)	Defra	Food provision

	24. Number / type of livestock	Agricultural Survey	
	25. Number and size of holdings	Agricultural Survey	
	26. Management of wildlife rich arable		
	farmland – no: of ES arable options		
	taken up		
Air	27. AQMAs, their objectives and whether	Local Authorities	
	they are being met.	Environment Agency	
	28. Emissions of air pollutants by source.		
	29. Headline air quality indicator (future		
	trends in air quality)		
Water	30. Ecological status of rivers and surface water bodies	Environment Agency Water Company	Water availability Regulating
	31. Pollution incidents (by source)	Local Authorities	coastal flooding
	32. Flood risk	Local Authornies	and erosion
	33. Water resource features		
	34. % rivers and lakes achieving good		
	ecological status environment data		
	35. % Transitional water bodies achieving good ecological status environment data		
	36. % Coastal water bodies achieving good ecological status environment data		
	37. % Shellfish water bodies achieving good ecological status environment data		
38. % of bathing water with quality compliance under the Bathing Water Directive			
	39. Capacity of water treatment works		
	40. Water availability		
	41. Water abstraction data		
Climate Factors		Local Authorities	Pogulating
Climate Factors	42. Greenhouse gas emissions (M tonnes carbon equivalent)	Environment Agency	Regulating climate
	43. Greenhouse gas emissions by source		Carbon
	44. Area of lowland raised bog		sequestration
	45. Number of village recycling schemes in operation		
Access	46. Length of Public Rights of Way	Indices of	Recreation
	47. Amount and distribution of new open space / green infrastructure	Deprivation Local Authorities	
48. The amount of open and linear access brought about by ES agreements		Natural England	
49. % of the protected landscape as 'accessible natural environment'			
	50. The area of land that is actually accessible under CROW, plus land with existing access rights that pre-determine CROW Access		
Material Assets	51. The uptake of selected ES options that contribute towards the protection of natural resources	Local Authorities Waste disposal authorities and	
	52. Spatial location of mineral reserves	waste planning	
	53. Capacity of waste management facilities	authorities	

	to deal with current and future waste arisings of all types.	Environment Agency Natural England	
AONB Population	<ul><li>54. Socio-economic profiles</li><li>55. Total resident population of AONB</li><li>56. Percentage of population of working age</li><li>57. Levels of deprivation</li></ul>	Census Defra Indices of Deprivation Local Authorities	
Human Health	58. Health inequality data 59. Standard Mortality Ratios 60. Disability data	Indices of Deprivation Local Authorities	Health
Communities	<ul> <li>61. Access to key services</li> <li>62. Distribution of current housing stock – by tenure and type including affordable housing</li> <li>63. Level of motor vehicle traffic</li> <li>64. Percentage of journeys made by foot or cycle</li> <li>65. Average distance and travel times by journey type.</li> <li>66. Congestion levels</li> </ul>	Indices of Deprivation Local Authorities Transport Plans Census 2011	
Economy	<ul> <li>67. Agricultural Survey statistics</li> <li>68. Tourism statistics, including % employed in tourism and the number of tourism businesses in the protected landscape and within 5 miles</li> <li>69. Employment rate by sector</li> </ul>	Defra Annual Business Enquiry Local Authorities AONB	

# Appendix 5: SEA Objectives and Key Local Environmental Issues

SEA	Objectives	Issues / Criteria
E1	To conserve and enhance the landscape	Conserving and enhancing the natural beauty of the landscape: landscape features contributing to the special qualities; landscape character, local distinctiveness and sense of place; visual amenity; views; tranquillity and remoteness, dark night skies; and the setting of the AONB and settlements
E2	To conserve and enhance habitats, flora and fauna	Conserving and enhancing; habitat condition; diversity; extent; interconnectivity; adaptation to climate change and geodiversity  Conserving and enhancing; populations of key species; the habitat requirements of key species; their adaptation to climate change  Community engagement: Raising awareness of the needs
		and sensitivities of species and habitats
E3	To conserve and enhance the historic environment, heritage assets and their setting	The historic environment covers a wide range of heritage assets including areas, buildings, features and landscapes with statutory protection, together with those parts of the historic environment that are locally valued and important, and also the historic character of the landscape and townscape.
		Strengthening: Local character and distinctiveness; maintaining local vernacular styles
		Conserving: heritage assets and their setting
		Promoting: High quality design and heritage-led regeneration
		Community engagement: In valuing and enjoying culturally important features and areas
E4	To conserve and enhance the environmental quality of land, air and water resources through the use of	Reducing: soil compaction; erosion; diffuse pollution; leaching of nutrients and organic matter. Increasing soil organic matter and carbon storage
	sustainable practices	Protect air: by reducing pollution sources within and/ or close by the AONB.
		Conserving and enhancing: surface and ground water quality/quantity; maintaining natural river geomorphologies
		Reducing flooding: (e.g. retaining water in upper catchments; increasing water retention by habitats and soils; maintain flood plains as natural washlands)
		Maintaining the quality of bathing and coastal waters: improved farming techniques; reduced pollution from fertilizers; reduced soil run off from farmlands, and fields
E5	To minimise waste and, through reuse, re-cycling and recovery, reduce the use of landfill	Conserving the environment: reusing or recycling materials saves resources, including energy, materials and landfill space.
E6	To reduce greenhouse gas emissions and encourage sustainable forms of energy production that integrate with the landscape	Promote climate change mitigation measures: reduce output of green house gases; energy saving; carbon storage and sequestration; appropriate renewable energy sources
E7	To safeguard human life and Quality of Life	Improving quality of life: providing for countryside recreation and opportunities for open air exercise where consistent with other objectives and the maintenance of natural beauty

E8	To ensure no adverse effect arises on population (i.e. demographic balance)	Promote the provision of jobs, affordable housing, accessible facilities and services, public transport options. Maintain a mixed community with a diverse age structure.
E9	To avoid significant adverse effects between the above interrelationships	Promoting the importance of how the landscape functions and the services provided; ensure natural systems are supported

# **Appendix 6: Objective Compatibility Matrix**

Key:

Interaction: **3** = strong positive; **2** = positive; **+1** = mixed or uncertain; 0 = minimal interaction; **-1** = mixed or uncertain Maximum score possible: 40 Objectives = 39 interactions; max score/interaction = 3; max score/Objective = 117

	So	Conserving and enhancing natural beauty	enhancing	natur	al be	auty		Theme
rsity and Geodiv	Raised Mires-	Sand Dunes	Saltmarsh		Farming	9	Landscape	Topic
Obj8	Obj7	Obj6	Obj5	Obj4	Obj3	Obj2	Obj1	Objectives
3	3	3	3	2	3	3		-
2	2	3	3	3	3		3	2
3	3	3	3	3		3	3	3
3	3	3	3		3	3	2	4
3	0	2		3	3	3	3	5
3	0		2	3	3	3	3	9
3		0	0	3	3	2	3	7
	3	3	3	3	3	2	3	8
3	3	3	3	3	2	2	3	6
3	3	3	3	3	3	2	3	10
3	0	3	3	3	3	2	3	-
3	3	1	2	3	3	3	3	12
3	3	3	3	3	2	3	2	13
3	3	0	3	3	2	3	2	14
0	0	1	1	3	3	3	3	15
0	1	1	1	3	3	2	3	16
	;	(	(	2		! (	;	2 7
3	3	3	3	2	1	0	3	<i>)</i>  -
2	2	1	1	0	0	0	3	18
2	0	3	0	3	0	0	3	19
2	0	3	0	3	0	0	2	20
1	1	3	0	1	1	0	2	21
3	2	3	2	2	2	1	3	22
2	0	0	0	3	2	1	1	23
3	2	3	2	3	0	0	3	24
3	3	3	3	3	3	3	3	25
3	2	2	2	3	3	3	2	26
3	1	0	0	0	0	1	3	27
2	2	2	2	3	2	3	3	28
2	2	2	2	3	2	2	3	29
0	0	0	0	1	0	1	0	30
0	0	0	0	0	0	1	1	31
3	3	0	0	0	0	0	3	32
0	0	2	0	0	0	0	2	33
1	2	1	3	2	1	0	2	34
3	3	3	3	2	3	1	1	35
1	1	1	1	2	1	1	1	36
0	0	0	0	2	1	1	1	37
1	1	1	1	3	2	1	1	38
3	3	3	3	3	3	3	3	39
3	1	3	3	3	2	2	3	40
8 4	6 4	7	6 7	9	7 1	6 4	9	Max = 117
7 2	5 5	6 3	5 7	7 8	6 1	5 5	8 0	% of max

		Obj9	3	2	2	3	3	3	3	3		1	3	2	1	3	1	1	2	1	1	0	0	0	1	1	1	3	0	0	0	0	0	2	0	0	3	0	0	0	0	2	5 1	4 4
		Obj10	3	2	3	3	3	3	3	3	1		3	2	2	2	2	2	3	0	3	0	0	1	0	3	2	3	0	3	2	0	0	3	0	3	1	0	2	0	2	2	7 0	6
		Obj11	3	2	3	3	3	3	0	3	3	3		2	3	3	3	2	3	3	3	2	3	1	1	3	1	3	0	2	1	0	0	1	0	3	3	1	0	- 1	3	3	7	6
	ıment	Obj12	3	3	3	3	2	1	3	3	2	2	2		3	3	2	0	1	2	3	0	0	1	1	3	3	3	2	1	2	0	0	1	0	0	3	2	0	0	3	2	6 8	5 8
	Enviro	Obj13	2	3	2	3	3	3	3	3	1	2	3	3		3	0	0	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	3	0	0	1	1	0	1	2	3	4 9	4 2
	Water	Obj14	2	3	2	3	3	0	3	3	3	2	3	3	3		1	1	3	2	3	2	2	2	1	3	2	3	1	2	0	2	0	2	0	1	1	1	1	1	3	3	7 6	6 5
	oric nment	Obj15	3	3	3	3	1	1	0	0	1	2	3	2	0	1		3	3	3	1	0	0	2	3	3	2	3	2	3	2	0	0	3	0	2	3	0	0	0	3	3	6 7	5 7
	Historic Water Environment	Obj16	3	2	3	3	1	1	1	0	1	2	2	0	0	1	3		3	0	3	0	3	0	0	3	0	3	0	1	1	0	0	0	0	3	0	0	0	0	0	0	4 3	3 7
	pment	Obj17	3	0	1	2	3	3	3	3	2	3	3	1	1	3	3	3		3	2	1	1	1	1	3	0	0	3	2	3	0	0	3	0	0	0	1	0	- 1	0	2	6 2	5 3
	Development and Planning	Obj18	3	0	0	0	1	1	2	2	1	0	3	2	1	2	3	0	3		1	0	0	2	2	0	0	0	3	3	2	3	3	3	2	0	0	2	2	3	1	3	5 9	5 0
ent	م <u>د</u>	Obj19	3	0	0	3	0	3	0	2	1	3	3	3	0	3	1	3	2	1		3	3	2	3	3	1	0	1	2	2	1	3	2	3	1	2	2	0	1	0	1	6 7	5 7
Understanding and Enjoyment	Access & Recreation	Obj20	2	0	0	3	0	3	0	2	0	0	2	0	0	2	0	0	1	0	3		3	2	3	3	0	0	0	1	2	2	3	2	3	0	3	1	0	0	1	2	4 9	4 2
and E	A Re	Obj21	2	0	1	1	0	3	1	1	0	0	3	0	0	2	0	3	1	0	3	3		2	3	3	0	1	0	1	2	0	0	2	3	3	1	1	0	0	0	2	4 8	4 1
nding	u	Obj22	3	1	2	2	2	3	2	3	0	1	1	1	0	2	2	0	1	2	2	2	2		2	3	0	3	0	3	3	0	0	1	1	1	0	0	0	0	0	1	5 2	4 4
erstar	Tourism	Obj23	1	1	2	3	0	0	0	2	1	0	1	1	0	1	3	0	1	2	3	3	3	2		2	2	3	0	3	3	0	0	0	1	1	2	0	0	0	3	1	5 1	4 4
Ond		Obj24	3	0	0	3	2	3	2	3	1	3	3	3	0	3	3	3	3	0	3	3	3	3	2		0	0	0	2	1	0	0	1	1	3	1	0	0	0	0	2	6 3	5 4
d /ell-	and	Obj25	3	3	3	3	3	3	3	3	1	2	1	3	1	2	2	0	0	0	1	0	0	0	2	0		2	0	2	3	2	1	0	0	1	1	0	0	0	3	2	5 6	4 8
Social and Economic Well-	Employment and Business	Obj26	2	3	3	3	2	2	2	3	3	3	3	3	0	3	3	3	0	0	0	0	1	3	3	0	2		0	3	3	2	2	0	0	3	3	1	0	1	3	1	7 2	6 2
Soci	Employ Bus	Obj27	3	1	0	0	0	0	1	3	0	0	0	2	1	1	2	0	3	3	1	0	0	0	0	0	0	0		0	0	2	2	1	0	1	0	2	1	2	0	0	3 2	2 7
ш	"	Obj28	3	3	2	3	2	2	2	2	0	3	2	1	0	2	3	1	2	3	2	1	1	3	3	2	2	3	0		3	1	1	3	0	2	2	3	1	3	3	3	7	6

																																											8	7
		Obj29	3	2	2	3	2	2	2	2	0	2	1	2	0	0	2	1	3	2	2	2	2	3	3	1	3	3	0	3		3	3	3	1	3	2	3	2	3	3	3	8 2	7 0
	ices	Obj30	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	0	0	3	1	2	0	0	0	0	2	2	2	1	3		3	3	3	2	2	3	3	3	0	0	4 2	3
	Services	Obj31	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	0	0	0	0	1	2	2	1	3	3		2	0	3	3	3	0	3	0	0	3 7	3 2
	sport	Obj32	3	0	0	0	0	0	3	3	2	3	1	1	3	2	3	0	3	3	2	2	2	1	0	1	0	0	1	3	3	3	2		3	3	2	2	0	2	1	2	6 5	5 6
	Transport	Obj33	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	3	3	3	1	1	1	0	0	0	0	1	3	0	3		2	3	3	0	1	0	1	3 5	3
	A&C	Obj34	2	0	1	2	3	1	2	1	0	3	3	0	0	1	2	3	0	0	1	0	3	1	1	3	1	3	1	2	3	2	3	3	2		3	3	3	2	0	0	6 4	5 5
	ī.t	Obj35	1	1	3	2	3	3	3	3	3	1	3	3	1	1	3	0	0	0	2	3	1	0	2	1	1	3	0	2	2	2	3	2	3	3		3	3	3	2	2	7 7	6 6
ant	Community involvement	Obj36	1	1	1	2	1	1	1	1	0	0	1	2	1	1	0	0	1	2	2	1	1	0	0	0	0	1	2	3	3	3	3	2	3	3	3		3	3	3	2	5 8	5 0
Engagement	ა ₹	Obj37	1	1	1	2	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	1	2	3	0	0	0	3	3	3		3	3	0	3 2	2 7
Eng	ange	Obj38	1	1	2	3	1	1	1	1	0	0	- 1	0	1	1	0	0	- 1	3	1	0	0	0	0	0	0	1	2	3	3	3	3	2	1	2	3	3	3		3	0	4 7	4 0
	Climate Change	Obj39	3	3	3	3	3	3	3	3	0	2	3	3	2	3	3	0	0	1	0	1	0	0	3	0	3	3	0	3	3	0	0	1	0	0	2	3	3	3		3	7 2	6 2
	Clin	Obj40	3	2	2	3	3	3	1	3	2	2	3	2	3	3	3	0	2	3	1	2	2	1	1	2	2	1	0	3	3	0	0	2	1	0	2	2	0	0	3		7	6 1

# **Appendix 7: Consistency Matrix**

Interaction: 3 = strong positive; 2 = positive; +1 = mixed or uncertain; 0 = minimal interaction; -1 = mixed or uncertain

					;	SEA O	bjecti	ves					
Theme	Topic	AONB Objectives	E1 Landscape	E2 Biodiversity	E3 Heritage	E4 Environmental Quality	E5 Waste Reduction	E6 Greenhouse	E7 Quality of Life	E8 Population	E9 Natural Systems	Max = 27	% of max
Conserving and enhancing natural beauty	Landscape	1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	3	2	3	2	0	0	0	0	2	12	44
	Farming	2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	3	2	3	3	1	1	1	2	3	19	70
		3: To ensure that the skills required to care for the landscape and its special qualities are appreciated and increased, with opportunities to acquire and develop such skills made available to all.	3	2	3	3	1	1	1	3	3	20	74
		4: To ensure rural land management, which conserves and enhances natural resources, including biodiversity, landscape character and the historic environment-and which aids public enjoyment of the AONB and is economically sustainable.	3	3	3	3	2	1	3	0	3	21	78
	Saltmarsh	5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	3	3	2	3	0	3	0	0	3	17	63
	Sand Dunes	6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all	3	3	2	2	0	0	3	0	3	16	59

	users.											
Lowland Raised Mires-Mosses	7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	2	3	2	3	0	3	0	0	3	16	59
Biodiversity and Geodiversity	8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	2	3	1	3	1	2	2	0	3	17	63
	9: To protect the establishment and spread of invasive non-native species (INNS) and plant diseases, and where appropriate eradicate populations	3	3	1	0	0	0	0	0	3	10	37
	10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	3	3	1	1	3	0	0	0	3	14	52
	11: To ensure the conservation and protection of Marine Protected Areas and coastal dunes and marshes.	3	3	3	3	2	-1	2	0	3	18	67
Water Environment	12: To ensure freshwater courses are appropriately managed and their quality enhanced	3	3	2	3	0	0	1	0	3	15	56
	13: To secure sustainable land management that regulates flooding	2	2	2	3	0	0	0	0	3	12	44
	14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	3	3	2	3	0	0	2	2	3	18	67
Historic Environment (and Culture)	15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	3	2	3	1	0	0	2	1	2	14	52
	16: To ensure an increase in professional and public knowledge and understanding of the AONB's historic environment.	2	1	3	2	0	0	2	1	3	14	52
Development and Planning	17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	3	3	3	1	0	0	2	2	2	16	59
	18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	3	3	3	2	0	1	0	2	3	17	63

Understanding and Enjoyment	Access & Recreation	19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	3	3	3	1	0	0	3	2	1	16	59
		20: To maintain, improve and promote access and quiet recreational opportunities in a sustainable way for a diverse group of people.	2	1	1	0	0	2	3	2	2	13	48
		21: To encourage and promote understanding, well informed access and enjoyment of the coast and AONB	1	2	2	0	0	0	3	2	1	11	41
	Tourism	22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	3	2	3	1	2	2	3	2	1	19	70
		23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	1	1	3	0	0	0	3	3	0	11	41
		24: To monitor and manage recreational pressure to avoid harmful impacts on the special qualities of the AONB.	3	3	3	0	0	0	3	0	3	15	56
Social and Economic Well-being	Employment and Business	25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty	3	3	3	3	0	2	1	3	3	21	78
		26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	2	2	2	2	0	0	0	3	1	12	44
		27: To ensure planning for housing is both appropriate to the needs of communities and has regard to the AONB character.	2	1	2	1	0	1	0	3	1	11	41
		28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	3	3	3	1	0	0	0	3	3	16	59
		29: To ensure maximisation of opportunities for the AONB's designation, special qualities and management to drive and support rural economic growth	3	3	3	0	0	0	0	3	1	13	48
	Services	30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support	0	0	0	0	1	0	2	3	0	6	22

		sustainable communities.											
		31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	2	1	2	0	0	1	2	3	0	11	41
	Transport	32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	3	3	3	0	0	0	0	3	2	14	52
		33: To ensure opportunities are taken to promote walking, cycling and public transport and enhance schemes where possible to provide an alternative to private car use.	0	0	0	0	0	2	3	3	0	8	30
Engagement	Awareness and Communication	34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	3	3	3	0	1	3	1	1	0	15	56
	Community Involvement	35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	3	3	3	1	0	0	3	2	2	17	63
		36: To support local communities in moving towards sustainable low carbon living.	0	1	0	1	3	3	1	2	0	11	41
		37: To ensure less waste is produced through waste minimisation and recycling of waste materials generated by communities.	0	0	0	2	3	0	0	1	0	6	22
Climate Change	Climate Change	38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	1	2	1	3	0	3	2	1	0	13	48
		39: To ensure land is managed sustainably in accordance with best practice to minimise erosion and water pollution and maximise resilience to drought services.	2	3	2	3	0	2	0	1	3	16	59
		40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	3	3	3	3	1	1	2	1	2	19	70
		max = 120	93	90	87	63	21	33	56	60	77		

	E1 Landscape	E2 Biodiversity	E3 Heritage	E4 Environmental Quality	E5 Waste Reduction	E6 Greenhouse	E7 Quality of Life	E8 Population	E9 Natural Systems
% of max	76	75	73	53	16	28	47	50	64

# **Appendix 8: Weighted Consistency Scores**

				SEA O	bjectiv	es					
AONB Topics	E1 Landscape	E2 Biodiversity	E3 Heritage	E4 Environmental Quality	E5 Waste Reduction	E6 Greenhouse	E7 Quality of Life	E8 Population	E9 Natural Systems	Total consistency score by Topics (Max = 900)	
Landscape	100	67	100	67	0	0	0	0	67	401	Ī
Farming	100	78	100	100	44	33	56	22	100	633	Ī
Saltmarsh	100	100	67	100	0	100	0	0	100	567	Ī
Sand Dunes	100	100	67	67	0	0	100	0	100	534	Ī
Lowland Raised Mires-Mosses	67	100	67	100	0	100	0	0	100	534	
Biodiversity and Geodiversity	92	100	50	58	50	8	33	0	100	491	
Water Environment	89	89	67	100	0	0	33	22	100	500	
Historic Environment (and Culture)	83	50	100	50	0	0	67	33	83	466	
Development and Planning	100	100	100	50	0	17	33	67	83	550	
Access & Recreation	67	67	67	11	0	22	100	67	44	445	
Tourism	78	67	100	11	22	22	100	56	44	500	
Employment and Business	87	80	87	47	0	20	7	100	60	488	
Services	33	17	33	0	17	17	67	100	0	284	
Transport	50	50	50	0	0	33	50	50	33	316	
Awareness and Communication	100	100	100	0	33	100	33	33	0	499	
Community Involvement	33	44	33	44	67	33	44	56	22	376	
Climate Change	67	89	67	100	11	67	44	33	56	534	
Total Consistency score by SEA Objective (Max = 1700)	1346	1298	1255	905	244	572	767	639	1092		
	E1 Landscape	E2 Biodiversity	E3 Heritage	E4 Environmental Quality	E5 Waste Reduction	E6 Greenhouse	E7 Quality of Life	E8 Population	E9 Natural Systems		
% of maximum	79	76	74	53	14	34	45	38	64		

## Appendix 9: Review of alternative policies

The test is a comparison of the effects of proposed or alternative actions on the status of the special qualities and ecosystem services.

#### **Table 1: Setting trends**

The setting of an AONB is the surroundings in which the area is experienced. If the quality of the setting declines, then the appreciation and enjoyment of the AONB diminishes. Construction of a distant but high structure; development or change generating movement, noise, odour, vibration or dust over a wide area; or a new understanding of the relationship between neighbouring landscape assets may all extend what might previously have been understood to comprise the setting.

Views are one element of setting, being associated with the visual experience. Views are particularly important to the AONB because of the low flat landscape and seascape. Recreational users value them. Without management, views within, from and to the AONB may be lost or degraded. Some views will be more important than others. Any development in the Solway Firth is likely to have an impact on views from the coast (e.g. wind turbines).

Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	The landscape and seascape setting is a special quality of the AONB and supports two ecosystem services relevant to setting (sense of place & inspiration and tranquillity). Publishing studies to better understand and monitor the condition, and rate of change, of landscape character will aid decision-making. This objective does seek to ensure that proposals for new power infrastructure minimise impacts on the setting and views from the AONB	There is the possibility of a steady decline in the quality of the special features and services through small-scale incremental development. The effect will be limited with the proper application of national planning guidance.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	Maintaining traditional land management practices contributes to the strong sense of place and remoteness, which is fundamental to the character of the area and its cultural ecosystem services.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	The coastal setting is a fundamental part of the character of the Solway Coast landscape and saltmarsh management, in part, will strengthen the setting.	Neutral
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Neutral	Neutral

7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Neutral	Neutral
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	Minor benefits because of scale but the desire to make connections beyond the AONB boundary will give some support to conserving the setting.	Neutral
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Neutral	Neutral
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	This supports the actions of other agencies and strengthens support for landscape issues.	Limited as other agencies will take actions but the focus may not be on AONB setting.
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	The objective supports two ecosystem services relevant to setting (sense of place & inspiration and sense of history). Promotes understanding of the historic character of the AONB and leads to better design that is respectful of the character of the AONB.	Loss of distinctive historic environment landscape elements through inappropriate change and adaptation.
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	The objective states that the landscape and seascape setting is a special quality of the AONB. The objective supports a range of cultural ecosystem services relevant to its setting. Publishing studies to better understand and monitor the condition, and rate of change, of landscape character will aid policy development and application. The objective seeks to establish robust detailed policies in local plans and neighbourhood development plans that support the purpose of AONB designation. It also seeks to protect the AONB from the adverse effects of development in its setting.	It is possible that the special qualities and services will not be accounted for in statutory plans. The effect will be limited with the proper application of national planning guidance.

Solway Coast AONB	Management Plan Review SEA Enviror	imental Report (Final)
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	The landscape and seascape setting is a special quality of the AONB and supports a range of cultural ecosystem services relevant to its setting. Scrutinising development proposals against an appreciation of landscape character will maintain the setting.	There is the possibility of a steady decline in the quality of the special features and services through small-scale incremental development. Where permission is required, the effect will be limited with the proper application of national planning guidance.
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	The character of the Solway Coast landscape is intricately linked to its coastal setting, its historical cultivation and land use and as a "frontier" between Scotland and England. This objective will aid understanding and may enhance enjoyment.	Rights of access will be maintained but there may be a loss of permissive access. Information building on a sense of place may be lost.
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	The promotion of sustainable tourism can contribute to the maintenance and enhancement of the setting of the AONB. The tourism sector may place a value on the AONB's setting and the ecosystem services it provides. Income from tourism will support the local economy.	Tourism decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	The promotion of sustainable tourism can contribute to the maintenance and enhancement of heritage assets, some of which contribute to the setting of the AONB.	The market will take actions in the AONB but they may not be an appropriate use of the setting or its services.  Opportunities to share resources will be lost.
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Maintaining traditional land management practices contributes to the strong sense of place and remoteness, which is fundamental to the character of the area and its cultural ecosystem services.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	Neutral	Neutral

Solway Coast AONB	Management Plan Review SEA Enviror	imentai Report (Finai)
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	The promotion of a sustainable economy can contribute to the maintenance and enhancement of the setting of the AONB. The objective will encourage managers to place a value on the AONB's setting and the ecosystem services it provides. Income to the local economy will increase.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Neutral	Neutral
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	The landscape and seascape setting is a special quality of the AONB and supports a range of cultural ecosystem services relevant to its setting. Scrutinising infrastructure improvements against an appreciation of landscape character will maintain the setting.	This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	The landscape and seascape setting is a special quality of the AONB and supports a range of cultural ecosystem services relevant to its setting. Scrutinising transport proposals against an appreciation of landscape character will maintain the setting.	Transport plans may not account for the special qualities and services. The effect will be limited with the proper application of national guidance. There is likely to be a steady decline in the quality of the special features and services through small-scale incremental development.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	Neutral	Neutral
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	A limited effect on the setting, as this lies outside of the AONB, but there may be an increase in understanding and appreciation. This will give support to decision-makers.	Neutral
36: To support local communities in moving towards sustainable low carbon living.	Neutral	Neutral

38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.

There is a mix of effects. Reducing carbon emissions will bring benefits to human health and biodiversity (both ecosystem services). There can be significant benefits to the local population and wider benefits for the UK. The landscape and seascape setting is a special quality of the AONB and supports two ecosystem services relevant to setting (sense of place & inspiration and tranquillity). The objective does support renewable energy infrastructure. Construction of a mast in the AONB or a distant but high structure in its setting can degrade local character and services. Development that generates movement, noise and vibration, such as a wind turbine, may degrade local character and services. The objective and its actions do not set out the design criteria that will conserve the character and services.

Increasing carbon emissions will slowly degrade biodiversity and human health. However, carbon does not recognised the AONB boundary and actions in the UK will have a n impact irrespective of AONB policies. Where permission is required within the AONB, the effect will be limited with the proper application of national planning guidance. Any wind turbine development in the Solway Firth is likely to have an impact on views from the coast that may not be considered.

40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.

The landscape and seascape setting is a special quality of the AONB and supports a range of cultural ecosystem services relevant to its setting. However, the coastal environment is dynamic and change is inevitable. Working with other agencies through SMP2 will ensure that the setting of the AONB is given consideration.

Limited as other agencies will take actions but the focus may not be on AONB setting.

The proposed objectives give greater environmental benefits than the 'do-nothing situation.

#### **Table 2: Tranquillity trends**

Tranquillity will be lost with an increase number of turbines, traffic, caravan parks, street lights and overhead aircraft.

Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Tranquillity is a special quality of the AONB and an ecosystem service. Publishing studies to better understand and monitor the condition, and rate of change, of landscape character will aid decision-making.	There will be a limited effect of the AONB because of the requirements of national planning guidance. There is the possibility of a steady decline in the tranquillity through small-scale incremental development.

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2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	Neutral	Neutral
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	Neutral	Neutral
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Neutral	Neutral
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Neutral	Neutral
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	Neutral	Neutral
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Neutral	Neutral
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	Neutral	Neutral
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	Neutral	Neutral

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17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	Tranquillity is a special quality of the AONB and an ecosystem service. Publishing studies to better understand and monitor the condition, and rate of change, of landscape character will aid policy development and application.  The objective seeks to establish robust detailed policies in local plans and neighbourhood development plans that support the purpose of AONB designation. It also seeks to prioritise the conservation of tranquillity.	It is possible that there will be no account of tranquillity in statutory plans. The effect may be limited with the proper application of national planning guidance.
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	Tranquillity is a special quality of the AONB and an ecosystem service. Scrutinising development proposals against an appreciation of landscape character will maintain the service.	There is the possibility of a steady decline in tranquillity through small-scale incremental development. Where permission is required, the effect may be limited with the proper application of national planning guidance.
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	Tranquillity is a special quality of the AONB and an ecosystem service. This objective will aid understanding and may enhance enjoyment. It seeks to monitor and manage recreational pressure to avoid harmful impacts on the special qualities of the AONB. However, unfettered use of the AONB may degrade tranquillity.	Rights of access will be maintained but there may be a loss of permissive access. Information building on a sense of place may be lost. Activities may develop that degrade tranquillity. There is the possibility of a steady decline in the tranquillity as small-scale incremental changes occur unmonitored.
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	The promotion of sustainable tourism can contribute to the maintenance and enhancement of the special qualities of the AONB. The tourism sector may place a value on the AONB's tranquillity. Income from tourism will support the local economy.	Tourism decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Neutral	The market will take actions in the AONB but they may not be an appropriate use of the setting or its services. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.  Opportunities to share resources will be lost.

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25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Neutral	Neutral
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	Neutral	Neutral
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	The promotion of a sustainable economy can contribute to the maintenance and enhancement of tranquillity in the AONB. The objective will encourage managers to place a value on the AONB's ecosystem services it provides. Income to the local economy will increase.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of tranquillity and a degrading of cultural services through inappropriate change.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Neutral	Neutral
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Tranquillity is a special quality of the AONB and an ecosystem service. The placing of pylons, power lines, masts and wind turbines in the AONB or its setting, will degrade tranquillity. Scrutinising infrastructure improvements against an appreciation of landscape character will help maintain tranquillity.	This may result in the gradual loss of tranquillity through inappropriate change.
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	Tranquillity is a special quality of the AONB and an ecosystem service. The movement of lorries, cars, motorbikes, trains and aircraft; the sight of roads and railways; and the presence of light pollution and urban clutter in the AONB or its setting, will degrade tranquillity. Scrutinising infrastructure improvements against an appreciation of landscape character will help maintain tranquillity.	This may result in the gradual loss of tranquillity through inappropriate change.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	Neutral	Neutral

35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	Tranquillity is important for our mental and physical well-being. It improves our quality of life. It is also a critical to rural economies. Seeking tranquillity is one of the main reasons why people head out of towns and cities; they wish to 'get away from it all'. This objective will help win support for a quality that is difficult to express.	This may result in the gradual loss of tranquillity through inappropriate actions arising from a lack of appreciation and value.
36: To support local communities in moving towards sustainable low carbon living.	Neutral	Neutral
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	Tranquillity is a special quality of the AONB and an ecosystem service. The placing of masts and wind turbines in the AONB or its setting, will degrade tranquillity. Scrutinising infrastructure improvements against an appreciation of landscape character will help maintain tranquillity.	This may result in the gradual loss of tranquillity through inappropriate change.
40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	Neutral	Neutral
The proposed objectives give greater environmental benefits than the 'do-nothing situation.		

#### Table 3: Climate change and globalisation trends

Increase in renewable energy technologies and their scale can degrade visual impressions of the AONB. There may be new agricultural crops due to global warming. Increase in storm and erratic weather patterns will erode and damage the soft coastline and sea defences that protect the B5300 road. There may be an effect on biodiversity, the historic environment and access. Resurrection of lowland peat bogs to restore carbon sink

Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Ecosystem services include regulating climate, coastal flooding and carbon sequestration; and providing food and water. Ensuring that climate change adaptation proposals, such as the infrastructure for renewable energy, are consistent with the special qualities of the AONB will minimise any adverse effects on the area.	There will be a gradual decline in landscape quality.

2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	Maintaining traditional land management practices help to regulate climate, reduce coastal flooding and support carbon sequestration. It also ensures food provision and water availability. This is fundamental to the character of the area, to supporting its regulating ecosystem services, and to conserving its provisioning services.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of regulating services through inappropriate change. There may be new agricultural crops due to global warming.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	The conservation and enhancement of saltmarsh habitats will regulate climate, reduce coastal flooding and aid carbon sequestration.	Profound changes over time with the loss of distinctive habitat and species. There is an increased risk of coastal flooding.
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	The conservation and enhancement of dune systems will reduce coastal flooding.	Profound changes over time with the loss of distinctive habitat and species. There is an increased risk of coastal flooding.
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	The restoration and enhancement of raised mires will maintain a carbon sink.	Profound changes over time with the loss of distinctive habitat and species.
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	Achieving greater buffering and connectivity between key habitats within the AONB and between the AONB and the countryside beyond will help wildlife to adapt to climate change. There will be a response to pests and diseases caused by climate change. There will be slow but profound changes over time.	Profound changes over time with an increase in exotic species.
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Neutral	Neutral
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	Maintaining water quality and flow helps to regulate climate, reduce coastal flooding and support carbon sequestration. It also ensures food provision and water availability. This is fundamental to the character of the area, to supporting its regulating ecosystem services, and to conserving its provisioning services.	Limited as other agencies will take actions but the focus may not be on AONB setting. There is an increased risk of flooding and an increase in exotic species.

	Undertaking surveys and	, , , ,
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	Undertaking surveys and research to better understand and monitor the condition of, and rate of change in, heritage will aid decision -makers.	There will be a gradual decline in the quality and structure of heritage assets.
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	Undertaking surveys and research to better understand and monitor the condition, and rate of change, of landscape character will aid policy development.	There will be a gradual decline in environmental quality.
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	Ensuring that green adaptation proposals, such as the infrastructure for renewable energy, are consistent with the special qualities of the AONB will minimise any adverse effects on the area.	There will be a gradual decline in landscape quality with the construction of urban clutter in the AONB. Where permission is required, the effect may be limited with the proper application of national planning guidance.
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	Neutral	Neutral
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	Limited but community and business initiatives may develop that promote appropriate renewable energy schemes, energy efficiency and recycling that reduce impacts.	Likely to be a steady rise in greenhouse gasses but renewable energy technologies may be introduced.
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Active management will result in timely interventions to conserve heritage assets.	There will be a gradual decline in the quality and structure of heritage assets.
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Maintaining traditional land management practices help to regulate climate, reduce coastal flooding and support carbon sequestration. It also ensures food provision and water availability. This is fundamental to the character of the area, to supporting its regulating ecosystem services, and to conserving its provisioning services.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of regulating services through inappropriate change. There may be new agricultural crops due to global warming.

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26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	Neutral	Neutral
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	Limited but community and business initiatives may develop that promote appropriate renewable energy schemes, energy efficiency and recycling that reduce impacts.	Likely to be a steady rise in greenhouse gasses but renewable energy technologies may be introduced.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Neutral	Neutral
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Neutral	Neutral
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	This objective seeks to promote walking, cycling and public transport; and enhance schemes to provide an alternative to private car use. Moves to develop, support and promote sustainable transport options to meet local transport needs will reduce greenhouse gases. Increase in storm and erratic weather patterns will erode and damage the soft coastline and sea defences that protect the B5300 road.	Increasing traffic levels will increase CO <sub>2</sub> emissions.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	Neutral	Neutral
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	Undertaking surveys and research to better understand and monitor the condition, and rate of change, of landscape character will aid policy development.	There will be a gradual decline in environmental quality.
36: To support local communities in moving towards sustainable low carbon living.	Limited but renewable energy and recycling schemes will be supported where they do not negatively affect the distinctive attributes or special qualities of the AONB.	There will be a gradual decline in landscape quality.

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38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	The objective seeks to restore lowland raised bogs as a climate regulator by both securing the storage of carbon in peat and by enabling sequestration of Carbon dioxide from the atmosphere, a regulating ecosystem service. Renewable energy and recycling schemes will be supported where they do not negatively affect the distinctive attributes or special qualities of the AONB.	Likely to be a steady rise in greenhouse gasses but renewable energy technologies may be introduced.
40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	Increase in storm and erratic weather patterns will erode and damage the soft coastline and sea defences that protect the B5300 road.	Limited as other agencies will take actions but the focus may not be on AONB setting.

The proposed objectives give greater environmental benefits than the 'do-nothing situation.

#### **Table 4: Historic environment trends**

Hadrian's Wall, listed buildings, HERS, traditional barns, farms, walls, villages and their traditional character are at risk from inappropriate development, arable cultivation and coastal erosion. There is a lack of consistent and current information about the conditions of the historic environment.

Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	The character of the Solway Coast landscape is intricately linked to its coastal setting, its historical cultivation and land use and as a "frontier" between Scotland and England. Its cultural services include a sense of place and a sense of history. The objective promotes understanding of the historic character of the AONB and leads to better management that is respectful of the character of the AONB.	There may be a loss of distinctive historic environment landscape elements through inappropriate change and adaptation.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	This objective seeks to conserve the historic environment. Identifying and promoting opportunities for positive landscape change to landowners, managers, government and all those with an influence over land can help conserve and enhance distinctive historic environment landscape elements.	There may be a lack of guidance and advice leading to a loss of historic character through ill-informed and inappropriate agricultural operations.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	Limited but may affect the historic fisheries.	Limited

6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Limited	Limited
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Limited	Limited
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	Neutral	Neutral
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Neutral	Neutral
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	Neutral	Neutral
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	This objective seeks to conserve and enhance the important sites and features linked to cultural heritage and surrounding cultural landscape. Promotes understanding of the historic character of the AONB and leads to better design that is respectful of the character of the AONB. It supports the cultural ecosystem services. It aims to identify historic sites that are at threat from loss through inappropriate management and secure sympathetic land management at these sites.	Historic settlements may lose their cohesion and character. A steady decline in local character and a loss of heritage assets through small-scale incremental development. There may be a lack of guidance and advice leading to a loss of historic character through ill-informed and inappropriate development.
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	Identifying and promoting opportunities for positive landscape change to policy makers can help conserve and enhance distinctive historic environment landscape elements and services.	There may be a loss of opportunities for collaborative working with historic environment objectives.

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18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	Promotes understanding of the historic character of the AONB and leads to better design that is respectful of the character of the AONB.	There may be a lack of guidance and advice leading to a loss of historic character through ill-informed and inappropriate development.
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	The objective seeks to deliver the England Coast Path within the AONB so that it does not have significant detrimental impacts on key historic, geological and biodiversity assets. It promotes appreciation of the historic character of the AONB and leads to activities that is respectful of the character of the AONB and the cultural services it provides.	There will be a gradual decline in quality of the historic environment.
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	The promotion of sustainable tourism can contribute to the maintenance and enhancement of heritage assets and the spreading of recreational use.	Loss of opportunities to guide appropriate use of the historic environment through tourism and the benefits to the local economy
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Opportunities sought to promote sustainable economic growth that enhances the character of the AONB can promote the sympathetic use of historic farm buildings and revitalise traditional crafts and skills.	There may be a loss of opportunities to safeguard traditional skills and sympathetic re-use of historic buildings.
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Identifying and promoting opportunities for positive landscape change to landowners, managers, government and all those with an influence over land can help conserve and enhance distinctive historic environment landscape elements.	There may be a lack of guidance and advice leading to a loss of historic character through ill-informed and inappropriate agricultural operations.
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	Provides opportunities for the promotion of the special historic character of the AONB and an understanding of its heritage assets.	There may be a loss of opportunities to safeguard traditional skills and sympathetic re-use of historic buildings.
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	Opportunities sought to promote sustainable economic growth that enhances the character of the AONB can promote the sympathetic use of historic farm buildings and revitalise traditional crafts and skills.	There may be a loss of opportunities to promote understanding and valuing of the historic environment of the AONB.

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30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Neutral	Neutral
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Neutral	Neutral
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	Identifying and promoting opportunities for positive landscape change to policy makers can help conserve and enhance distinctive historic environment landscape elements and services.	There may be a loss of opportunities for collaborative working with historic environment objectives.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	May reduce unrecorded excavation of heritage assets.	Neutral
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	There may be an increase in understanding and appreciation. This will give support to decision-makers. There may be a reduction in unrecorded excavation of heritage assets.	There may be a loss of opportunities for collaborative working with historic environment objectives.
36: To support local communities in moving towards sustainable low carbon living.	Neutral	Neutral
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	Appropriate adaptation to climate change recognises the sensitivity of some landscape elements to change and promotes understanding of heritage assets and the exploration of options prior to implementation. The objective seeks to promote renewable energy sources that are complementary to the AONB character. However, there will be no control on small-scale domestic initiatives. These may degrade the character and setting of settlements.	There may be a loss of distinctive historic environment landscape elements through inappropriate change and adaptation.
40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	Appropriate adaptation to climate change recognises the sensitivity of some landscape elements to change and promotes understanding of heritage assets and the exploration of options prior to implementation.	There may be a loss of distinctive historic environment landscape elements through inappropriate change and flooding.
The proposed objectives give greater environmental benefits than the 'do-nothing situation.		

## **Table 5: Biodiversity trends**

The management of water, wetlands and drainage has a significant effect on biodiversity in the AONB. Characteristic habitats and some species are in decline or are being lost due to farming changes (including land drainage and watercourse management), climate change influences, colonisation by invasive non-native species, inappropriate management and development pressures. There may be a lack of landscape scale approach to improving habitats. There is limited knowledge of overall biodiversity of the AONB due to a lack of recorders and the scale of the task.

Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Biodiversity is an ecosystem service. There will be an enhanced understanding of the value and needs of nature within the AONB. This will support decision-making that is supportive of wildlife.	A lack of information or appreciation of the natural resource may result in unexpected consequences for wildlife.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	This objective seeks to conserve natural resources such as biodiversity. Proactive management of habitats and species will help maintain habitat range and quality. Development of wildlife corridors will aid adaption to climate change.	Commercial agriculture will operate to maximise income. This may have an adverse effect on wildlife, though national imperatives will reduce the impact.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	Proactive management of habitats and species will help maintain habitat range and quality.	Profound changes over time with the loss of distinctive habitat and species.
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Proactive management of habitats and species will help maintain habitat range and quality.	Profound changes over time with the loss of distinctive habitat and species.
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Proactive management of habitats and species will help maintain habitat range and quality.	Profound changes over time. Increase in exotic species.
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	Positive landscape management by landowners, managers, government and all those with an influence over land can help maintain habitat range and quality. Safeguarding nature from any damaging impacts arising from development or other activities will protect the resource. Supporting climate change mitigation works can create new habitats. Developing an AONB Biodiversity 2020 Local Delivery Plan will encourage focused action. The objective seeks to ensure that at least 90% of SSSIs are in favourable condition by 2020.	There may be a fragmentation and decline of habitats, with a steady loss of species unable to adjust to a modified climate.

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10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	There will be an enhanced understanding of the natural systems within the AONB. This will support decision-making that is supportive of wildlife.	A lack of information or appreciation of the natural resource may result in unexpected consequences for wildlife.
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	The condition of the natural resource will be monitored and information provided to support good decision making. Actions will be coordinated and tested against national criteria. Nature will be given serious consideration by a range of bodies and agencies.	There may be a fragmentation and decline of habitats, with a steady loss of species unable to adjust to a modified climate.
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	Neutral	Neutral
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	The condition of the natural resource will be monitored and information provided to support good decision making. Actions will be coordinated and tested against national criteria. Nature will be given serious consideration by a range of bodies and agencies.	Land management and policy decisions will be uncoordinated and based on incomplete data.
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	There will be an enhanced understanding of the value and needs of nature within the AONB. This will support decision-making that is supportive of wildlife.	A decline in habitat condition and range, potential for inappropriate land use developments.
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	The objective seeks to deliver the England Coast Path within the AONB so that it does not have significant detrimental impacts on key historic, geological and biodiversity assets. A co-ordinated approach to visitor management will ensure that sensitive sites are managed to protect fragile species and habitats.	There would be uncontrolled access across the area for recreational activities that have the potential to harm wildlife.
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	Nature will have a value in business decisions, giving opportunities for proactive wildlife support.	Opportunities may be lost to enhance wildlife habitats and networks.

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23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Nature will have a value in business decisions, giving opportunities for proactive wildlife support.	Opportunities may be lost to enhance wildlife habitats and networks.
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Proactive management of habitats and species will help maintain habitat range and quality. Development of wildlife corridors will aid adaption to climate change.	Commercial agriculture will operate to maximise income. This may have an adverse effect on wildlife, though national imperatives will reduce the impact.
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	There will be an enhanced understanding of the value and needs of nature within the AONB. This will support decision-making that is supportive of wildlife.	A lack of information or appreciation of the natural resource may result in unexpected consequences for wildlife.
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	Nature will have a value in business decisions, giving opportunities for proactive wildlife support.	Opportunities may be lost to enhance wildlife habitats and networks.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Neutral	Neutral
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Neutral	Neutral
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	Effective policies cans safeguard nature from any damaging impacts arising from development and protect the resource.	A lack of information or appreciation of the natural resource may result in unexpected consequences for wildlife.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	The objective seeks to involve communities in the collection of biodiversity data and this will aid monitoring. There may be a reduction in wildlife crime as communities gain understanding and appreciation of the natural resource.	Monitoring will be less effective and poaching and other crimes affecting wildlife may increase.
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	Positive landscape management by local communities can help maintain habitat range and quality.	A decline in habitat condition and range.

36: To support local communities in moving towards sustainable low carbon living.	Supporting climate change mitigation works can create new habitats and reduce species loss.	A decline in habitat condition and range, potential for inappropriate land use developments.
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	Supporting climate change mitigation works can create new habitats but there is a small risk that some existing species may be affected by noise or impact.	A decline in habitat condition and range, potential for inappropriate land use developments.
40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	The objective seeks to work with partners to address coastal squeeze. The condition of the natural resource will be monitored and information provided to support good decision making. Actions will be coordinated and tested against national criteria. Nature will be given serious consideration by a range of bodies and agencies.	There may be a fragmentation and decline of habitats, with a steady loss of species unable to adjust to a modified climate.
The proposed objectives give g	reater environmental benefits than the 'c	do-nothing situation.

# **Table 6: Plant diseases trends**

More tree pests and diseases possibly linked to climate change and global trade, travel and imported plants leads to the spread of diseases

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Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Through the state of the AONB reports, the condition of the natural resource will be monitored and information provided to support good decision making. Actions will be coordinated and tested against national criteria.	A lack of information or appreciation of the natural resource may result in unexpected consequences for ecosystem services.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	Local support may be offered to the agricultural community for wildlife enhancement works. Agricultural crops and animals may secure protection from disease and infection.	Commercial agriculture will operate to maximise income. This may have an adverse effect on wildlife, though national imperatives will reduce the impact.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	Proactive management of habitats and species will help maintain habitat range and quality.	Profound changes over time with the loss of distinctive habitat and species

	lagement Plan Review SEA Environmental F	toport (i iriai)
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Proactive management of habitats and species will help maintain habitat range and quality.	Profound changes over time with the loss of distinctive habitat and species
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Proactive management of habitats and species will help maintain habitat range and quality.	Profound changes over time with the loss of distinctive habitat and species
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	This objective seeks to reduce or eradicate, invasive non-native species and plant diseases. Achieving greater buffering and connectivity between key habitats within the AONB and between the AONB and the countryside beyond will help wildlife to adapt to climate change. There will be a response to pests and diseases caused by climate change. There will be slow but profound changes over time.	Profound changes over time with the loss of distinctive habitat and species
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	This objective will aid understanding and may enhance enjoyment.	Neutral
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	Proactive management of habitats and species will help maintain habitat range and quality.	Profound changes over time with the loss of distinctive habitat and species
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	Neutral	Neutral
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	Neutral	Neutral
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	Neutral	Neutral

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19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	A co-ordinated approach to visitor management will ensure that sensitive sites are managed to protect fragile species and habitats. However, the spread of non-native plants and plant diseases may occur.	There would be uncontrolled access across the area for recreational activities that have the potential to harm wildlife.
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	Neutral	Neutral
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Neutral	Neutral
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Local support may be offered to the agricultural community for wildlife enhancement works. Agricultural crops and animals may secure protection from disease and infection.	Commercial agriculture will operate to maximise income. This may have an adverse effect on wildlife, though national imperatives will reduce the impact.
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	There will be an enhanced understanding of the value and workings of natural systems within the AONB. This will support decision-making that is supportive of wildlife.	A lack of information or appreciation of the natural resource may result in unexpected consequences for wildlife.
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	Neutral	Neutral
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Neutral	Neutral
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Neutral	Neutral

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32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	Neutral	Neutral
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	The objective seeks to involve communities in the collection of biodiversity data and this will aid monitoring disease and non-native species.	Monitoring will be less effective.
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	There will be an enhanced understanding of the value and workings of natural systems within the AONB. This will support decision-making that is supportive of wildlife.	A lack of information or appreciation of the natural resource may result in unexpected consequences for wildlife.
36: To support local communities in moving towards sustainable low carbon living.	Neutral	Neutral
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	Neutral	Neutral
40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	A co-ordinated approach to habitat management will ensure that sensitive sites are managed to protect fragile species and habitats. However, the spread of non-native plants and plant diseases may occur.	Limited as other agencies will undertake actions to national standards.
The proposed objectives give greater environmental benefits than the 'do-nothing situation.		

# **Table 7: Agricultural trends**

All sectors face changes due to the changing CAP, climate change, market variation and possible diseases. Farm diversification can lead to changes in farming practises. Changing economies can lead to different crops being grown that change the landscape and affect farmland biodiversity. Intensification of farming can lead to changes in land ownership giving larger fields (hedges may be lost but there is some control under the Hedgerow Regulations). Increase in Local Food Marketing may deliver a greater variety of crops. There may be a loss of bees and pollinators due to neocotinoid use if not prohibited.

Management Plan Strategic	Effects of proposed actions	Effects of do nothing
Objectives		situation

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1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Food provision is an ecosystem service. Publishing studies to better understand and monitor the condition, and rate of change, of landscape character will aid decision-making.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	This objective supports a number of ecosystem services. Action will be taken to identify and encourage sustainable agricultural land management practices, supported by proactive land management policies. This objective seeks to provide advice and support to farmers and land managers to promote and encourage uptake of environment and land management grant schemes. Management strategies for the area will be adapted to protect against changes in climate, plant and animal health.	Agricultural management decisions may be influence by national market or grant aid priorities with no modification for local needs. This may result in conflict with local agencies and people.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	Maintaining traditional land management practices contributes to the maintenance of distinctive habitats, which is fundamental to the character of the area and its cultural ecosystem services.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive habitats and a degrading of cultural services through inappropriate change.
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Neutral	Neutral
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Maintaining traditional land management practices contributes to the maintenance of distinctive habitats, which is fundamental to the character of the area and its cultural ecosystem services.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive habitats and a degrading of cultural services through inappropriate change.

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8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	Local support may be offered to the agricultural community for wildlife enhancement works. Agricultural crops and animals may secure protection from disease and infection.	Commercial agriculture will operate to maximise income. This may have an adverse effect on wildlife, though national imperatives will reduce the impact.
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Neutral	Neutral
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	Local support may be offered to the agricultural community for water management. Agricultural crops and animals may secure protection from disease and infection. The objective seeks to implement the Catchment Sensitive Farming initiative within the AONB. It will tackle issues of point source pollution from the outflow of effluent from septic tanks and diffuse groundwater pollution due to agricultural activity and other forms of nitrogen enrichment.	Commercial agriculture will operate to maximise income. This may have an adverse effect on water quality, though national imperatives will reduce the impact.
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	Promotes understanding of the historic character of the AONB and leads to an understanding of the impact of traditional land management operations and processes.	Commercial agriculture will operate to maximise income. This may have an adverse effect on heritage assets, though national imperatives will reduce the impact.
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	Limited, only actions that require local permissions will be modified. But this will give the opportunity to encourage actions that support the designation.	There may be a more rapid move towards pure profit goals rather than a mix with conservation.
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	Limited, only actions that require local permissions will be modified. But this will give the opportunity to encourage actions that support the designation.	There may be a more rapid move towards pure profit goals rather than a mix with conservation.

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19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	There could be a reduction in conflict between land mangers and recreational users with people showing more consideration for those who make a living from the land.	The value of the agricultural resource will be slowly eroded. Marginal agricultural activities will become increasingly unprofitable and local goodwill will be lost. This will reduce opportunities for developments to support recreational activities.
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	The objective seeks to promote locally produced food and other products to reinforce local distinctiveness and add value to the local economy. This supports the provisioning ecosystem services and the special qualities.	Opportunities will be lost maintain the local economy.
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Neutral	Neutral
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Local support may be offered to the agricultural community for environmental enhancement works. Agricultural crops and animals may secure protection from disease and infection.	Commercial agriculture will operate to maximise income. This may have an adverse effect on landscape character and natural systems, though national imperatives will reduce the impact.
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	Clear and authoritative advice and guidance will support the innovative management of land to maximise economic and public benefits.	Opportunities may be lost to benefit from the expertise of land managers.
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	Businesses will be proactively engaged in AONB matters and information will be made available to support decision-making.	Commercial agriculture will operate to maximise income. This may have an adverse effect on landscape character, though national imperatives will reduce the impact.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Farming communities will benefit from improved services and quality of life is improved	It may be difficult to retain an agricultural workforce.

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31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Farm businesses will benefit from improved communications. This will aid marketing and research; it will reduce social isolation.	There may be a lack of guidance and advice leading to a loss of landscape character character through ill-informed and inappropriate agricultural operations.
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	Neutral	Neutral
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	Neutral	Neutral
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	Neutral	Neutral
36: To support local communities in moving towards sustainable low carbon living.	Neutral	Neutral
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	This objective supports a number of ecosystem services. Action will be taken to minimise erosion and water pollution and maximise resilience to drought. Management strategies for the area will be adapted to protect against changes in climate, plant and animal health.	Agricultural management decisions may be influence by national market or grant aid priorities with no modification for local needs. This may result in conflict with local agencies and people.
40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	Action will be taken to identify and encourage sustainable agricultural land management practices, supported by proactive land management policies. Management strategies for the area will be adapted to protect against changes in climate.	Limited effect as agricultural management decisions may be influence by national market or grant aid priorities, which will match local need in this case.
The proposed objectives give greater environmental benefits than the 'do-nothing situation.		

Table 8: Traditional skills trends				
Limited perceived value in rural skills, walling, hedge-laying, leads to changes in landscape and associated habitats.				
Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation		

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1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Neutral	Neutral
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	This objective seeks to ensure that the skills required to care for the landscape and its special qualities are appreciated and increased, with opportunities to acquire and develop such skills made available to all.	A lost opportunity to pass on and train up a work force able to maintain characteristic elements leading to a slow but steady decline in landscape quality. Skills will still be passed on through families but in an uncoordinated manner.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	This objective may present the opportunity to maintain and pass on the skills required to support a distinctive habitat and natural system.	Ditto
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Ditto	Ditto
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Ditto	Ditto
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	Ditto	Ditto
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Ditto	Ditto
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	Neutral	Neutral
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	This objective seeks to increase professional and public knowledge and understanding of the AONB's historic environment. This will result in an appreciation of the role of traditional skills and may support the take up of training.	Management decisions may be based on poor information and a misunderstanding of processes. Skills will still be passed on through families but in an uncoordinated manner.

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Neutral	Neutral
Neutral	Neutral
This objective may develop an appreciation of the role of traditional skills and may support the take up of training.	A lack of appreciation of the needs of the natural resource may result in unexpected consequences for landscape character and natural systems.
This objective may result in an appreciation of the role of traditional skills and may support the take up of training.	Management decisions may be based on poor information and a misunderstanding of processes, resulting in unexpected consequences for landscape character and natural systems
Ditto	Ditto
Neutral	Neutral
There will be an enhanced understanding of the value and workings of natural systems within the AONB. This will support decision-making that is supportive of a distinctive landscape character and natural systems.	A lack of information or appreciation of the natural resource may result in unexpected consequences for landscape character and natural systems.
This objective may result in an appreciation of the role of traditional skills and may support the take up of training.	Management decisions may be based on poor information and a misunderstanding of processes, resulting in unexpected consequences for landscape character and natural systems
	This objective may develop an appreciation of the role of traditional skills and may support the take up of training.  This objective may result in an appreciation of the role of traditional skills and may support the take up of training.  Ditto  Ditto  Neutral  There will be an enhanced understanding of the value and workings of natural systems within the AONB. This will support decision-making that is supportive of a distinctive landscape character and natural systems.  This objective may result in an appreciation of the role of traditional skills and may support the take up of

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30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	The objective seeks to provide training to developing skills around services linked to its special quality, traditional skills. Support is offered to local businesses and services that contribute to the AONB objectives.	A lost opportunity to pass on and train up a work force able to maintain characteristic elements leading to a slow but steady decline in landscape quality.
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Neutral	Neutral
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	This objective may present the opportunity to maintain and pass on the skills required to support a distinctive feature in the landscape.	A lost opportunity to pass on and train up a work force able to maintain characteristic elements leading to a slow but steady decline in landscape quality.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	This objective may develop an appreciation of the role of traditional skills and may support the take up of training.	A lack of appreciation of the needs of the natural resource may result in unexpected consequences for landscape character and natural systems.
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	There will be an enhanced understanding of the value and workings of natural systems within the AONB. This objective may present the opportunity to maintain and pass on the skills required to support a distinctive habitat and natural system.	A lack of information or appreciation of the natural resource may result in unexpected consequences for landscape character and natural systems.
36: To support local communities in moving towards sustainable low carbon living.	This objective may develop an appreciation of the role of traditional skills and may support the take up of training.	A lack of appreciation of the needs of the natural resource may result in unexpected consequences for landscape character and natural systems.
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	This objective seeks to minimise erosion and water pollution and maximise resilience to drought. An appreciation of the role of traditional skills may develop that supports the take up of training.	A lost opportunity to pass on and train up a work force able to maintain characteristic elements leading to a slow but steady decline in landscape quality. Skills will still be passed on through families but in an uncoordinated manner.

managing coastal change and securing adaptive management of coastal habitats.  the opportunity to maintain and pass on the skills required to support a distinctive habitat and natural system.  and pass on the skills required to support a distinctive habitat and natural system.
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The proposed objectives give greater environmental benefits than the 'do-nothing situation.

### **Table 9: Development trends**

Pressures due to land use changes inside and outside the AONB, to provide economic and social balance and maintain AONB character, affordable housing, local facilities and services, public transport needs in rural area, barn conversions. Need for sustainable tourism related developments, telecommunications, new National Grid developments and network undergrounding, and broadband networks will all have landscape impacts.

Management Plan Strategic	Effects of proposed actions	Effects of do nothing situation
Objectives	Ellects of proposed actions	Enects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Use the Solway Coast AONB Landscape and Seascape Character Assessment 2010, to comment on planning decisions to make informed decisions and responses regarding development will maintain the special qualities.	There will be a limited effect of the AONB because of the requirements of national planning guidance. There is the possibility of a steady decline in the quality of the special features and characteristics through small-scale incremental development.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	Limited, as many farming operations do not require planning permission. The objective seeks a proactive approach by influencing farm diversification schemes. This may deliver opportunities to enhance the special qualities.	Land management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the landscape character and a degrading of natural services through inappropriate change.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	Neutral	Neutral
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Neutral	Neutral
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Neutral	Neutral

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8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	By supporting the planning authorities, developer contributions may be available to maintain and create habitats and wildlife corridors.	Opportunities to enhance connectivity and habitats may be lost. The effect will be limited with the proper application of national planning guidance.
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	The objective seeks to ensure that no features of interest are lost to development or unsympathetic land management.	For the designated sites, there will be a limited effect because of the requirements of national planning guidance. There is the possibility of a steady decline in the quality of the special features and characteristics through small-scale incremental development.
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	Neutral	Neutral
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	This objective seeks work with development planners to maintain local vernacular styles in new developments and to ensure the layout of new developments reflect local settlement structure. This will support the cultural ecosystem services and help maintain heritage character.	For the designated sites and buildings, there will be a limited effect because of the requirements of national planning guidance. A steady decline in local character and a loss of the sense of place through small-scale incremental development.
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	The objective seeks to establish policies in local plans and neighbourhood development plans that support the purpose of AONB designation. It also seeks to protect the AONB from the adverse effects of development in its setting. Influencing planning policies, Local Plans and planning decisions will ensure they incorporate measures for the conservation and enhancement of the AONB landscape and scenic beauty.	There will be a limited effect of the AONB because of the requirements of national planning guidance. Settlements may expand and lose their cohesion and character. A steady decline in local character and a loss of tranquillity through small- scale incremental development. There may be increased opportunities to introduce / support viable local facilities as they set aside environmental obligations.

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18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	There will be a greater appreciation and respect for the designation. This will encourage development that is appropriate to the character of the area and meets local community needs. This objective seeks to ensure planning for housing is both appropriate to the needs of communities and has regard to the AONB character.	Settlements may expand and lose their cohesion and character. There may be increased opportunities to introduce / support viable local facilities as they set aside environmental obligations.
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	This objective seeks to monitor and manage recreational pressure to avoid harmful impacts on the special qualities of the AONB. Monitoring the cumulative impacts will improve policies.	There may be a steady decline in local character and a loss of tranquillity.
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	The objective seeks to work alongside local businesses to improve their environmental and 'green' credentials and visitor payback schemes. This can safeguard the AONB from potential damaging impacts arising from development and securing business sector contributions to enhance the natural environment will generate funds.	There may be a steady decline in local character and a loss of tranquillity.
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Limited but the objective can result in development that enhances the special qualities of the AONB.	There may be a steady decline in local character and a loss of tranquillity.
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	Neutral	Neutral
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	Neutral	Neutral

28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	The objective seeks to promote the special qualities of the area and supports sustainable growth that values the key attributes of the landscape. This supports the ecosystem services and the marine character of the area. The AONB will be safeguarded from potential damaging impacts arising from development and securing business sector contributions to enhance the natural environment will generate funds. There may be an opportunity to introduce / support viable local facilities.	There may be a steady decline in local character and a loss of tranquillity.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	The objective calls for the retention and expansion of local services to support community life.	There may be an opportunity to introduce / support viable local facilities.
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Communications infrastructure can degrade landscape character but the development of robust AONB policies in local and neighbourhood plans should mitigate any harm. The objective seeks to deliver high-speed broadband but ensure the sensitive siting of necessary infrastructure.	There are national policies and initiatives to roll out improved communications. Commercial decisions will operate to maximise income. This may have an adverse effect on landscape character and natural systems, though this will be limited with the proper application of national planning guidance.
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	The objective seeks to develop and undertake audits of excessive cluttering of transport signage. It also seeks signage that is in keeping with the special qualities of the AONB, including traditional finger posts.	There may be a steady decline in local character and a loss of sense of place.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	Neutral	Neutral
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	The objective seeks to increase awareness and understanding of the special qualities of the local natural and built environment and engage with communities to identify local issues and develop solutions for their conservation and enhancement. This may discourage inappropriate development to the benefit of the special qualities.	There may be a steady decline in local character and a loss of sense of place.

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36: To support local communities in moving towards sustainable low carbon living.	The special qualities could be degraded. The objective seeks to promote energy and water efficiency measures in any new development within the AONB. This will support the regulating ecosystem services. But - the special qualities could be degraded. The objective does not seek to safeguard the special qualities.	Potentially a better outcome as the landscape character will be considered. There are national policies and initiatives to roll out climate change strategies and grants. National planning guidance is likely to conserve the landscape character.
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	The objective seeks to work with planning authorities on matters relating to housing development, wind turbine development and possible Solway Barrage. It promotes energy and water efficiency measures in any new development within the AONB. This will support the regulating ecosystem services and will ensure that the special qualities of the AONB are considered by decision-makers.	There is the possibility of a steady decline in the quality of the special features and services through development. The setting of the AONB is at risk. The effect will be limited with the proper application of national planning guidance.
40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	The objective seeks to work with partners to address coastal squeeze and secure coastal management regimes that allow saltmarsh accretion and land level rise to offset sea level rise. There will be action to manage access to the coastal zone so that fragile 'barrier' habitats are not damaged. This will enhance their coastal protection function. The objective also seeks to raise awareness of the inevitability of coastal change through partnership literature and media articles. This will support better decision making and maintain the quality of the seascape.	There will be a limited effect of the AONB because of the requirements of national planning guidance. There may be a steady decline in seascape character and an increased risk of flooding.
The proposed objectives give greater environmental benefits than the 'do-nothing situation.		

# Table 10: Incremental change trends

Permitted development - village in-fill and inappropriate building design, with agricultural barn extensions, cow shed proliferation, aquaculture, poultry farm buildings increasing in size, and building in village conservation areas will have a significant accumulative effect.

Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
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1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	Limited. The character of the AONB is partly based on the rural setting of the AONB, which has remained relatively unchanged and undisturbed in character. This supports its cultural ecosystem services. The objective seeks to develop and deliver a programme of landscape monitoring linked to management plan indicators. This will help track incremental changes.	Settlements may expand and lose their cohesion and character. A steady decline in local character and a loss of tranquillity through small- scale incremental development. There may be increased opportunities to introduce / support viable local facilities as they set aside environmental obligations.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	The objective seeks a proactive approach by influencing farm diversification schemes. Action will be taken to identify and encourage sustainable agricultural land management practices, supported by proactive land management policies. This may deliver opportunities to enhance the special qualities.	Agricultural management decisions may be influence by national market or grant aid priorities with no modification for local needs. This may result in conflict with local agencies and people.
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	Neutral	Neutral
6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Neutral	Neutral
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Neutral	Neutral
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	The objective seeks to raise awareness of importance of maintaining and create wildlife corridors. It will develop action plans and monitoring. It may not prevent degradation by incremental change but it will trigger a warning and provide evidence. This may trigger remedial actions	There would be opportunities lost that have the potential to harm wildlife.
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Neutral	Neutral

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14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	There will be limited effects but the objective seeks to implement Catchment Management Plans linked to River Basin Management Plans and the AONB Management Plan. This should improve monitoring. Actions will be taken to tackle issues of point source pollution from the outflow of effluent from septic tanks and diffuse groundwater pollution. This will trigger remedial actions.	There are national policies and initiatives to roll out improved the water environment. National agencies and other bodies will act to conserve the water bodies. They will have powers to take action if incremental changes cause a significant problem. The focus may not be on the special qualities but the ecosystem services will be enhanced.
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	This objective seeks to conserve and enhance the important sites and features linked to cultural heritage and surrounding cultural landscape. It aims to identify historic sites that are at threat from loss through inappropriate management and secure sympathetic land management at these sites.	Historic settlements may lose their cohesion and character. A steady decline in local character and a loss of heritage assets through small- scale incremental development.
17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	Limited effects, as there are permitted development rights. The objective seeks to establish policies in local plans and neighbourhood development plans that support the purpose of AONB designation. It also seeks to protect the AONB from the adverse effects of development in its setting. Influencing planning policies, Local Plans and planning decisions will ensure they incorporate measures for the conservation and enhancement of the AONB landscape and scenic beauty.	Limited effects, as there are permitted development rights and because of the requirements of national planning guidance. Settlements may expand and lose their cohesion and character. A steady decline in local character and a loss of tranquillity through small- scale incremental development. There may be increased opportunities to introduce / support viable local facilities as they set aside environmental obligations.
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	By engaging with local communities in their Neighbourhood Plans, there will be a greater appreciation and respect for the designation. This will encourage development that is appropriate to the character of the area and meets local community needs.	Settlements may lose their cohesion and character. There may be increased opportunities to introduce / support viable local facilities as they set aside environmental obligations.
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	Neutral	Neutral

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22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	The objective seeks to work with Cumbria ACT, other partnerships and local businesses to improve working relationships between communities in the AONB and promote tourism opportunities. This may discourage inappropriate small-scale change to the benefit of the special qualities.	Actions will be uncoordinated and opportunities lost that have the potential to harm the special qualities.
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	Neutral	Neutral
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	The objective seeks to support farm diversification that increases economic sustainability and helps to conserve and enhance the natural environment including sensitive renovation of traditional barns. This will support the provisioning ecosystem services and maintain the special qualities.	Commercial agriculture will operate to maximise income. This may have an adverse effect on landscape character and natural systems, though national imperatives will reduce the impact.
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	The objective will raise understanding and awareness of the special qualities and natural services. This may modify actions.	Neutral
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	The objective seeks to promote the special qualities of the area and supports sustainable growth that values the key attributes of the landscape. This supports the ecosystem services and the marine character of the area. This may modify actions.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	The objective seeks to provide training to developing skills around services linked to its special quality and environmental skills. Support is offered to local businesses and services that contribute to the AONB objectives. This may modify actions.	An opportunity will be lost to pass on an understanding of characteristic elements. This may result in the gradual loss of the distinctive landscape character and a degrading of cultural services through inappropriate change.
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	The objective seeks to deliver high-speed broadband to support tourism and all businesses and services and improve their outputs ensuring the sensitive siting of necessary infrastructure. This may modify actions.	Commercial decisions will operate to maximise income. This may have an adverse effect on landscape character and natural systems, though national imperatives will reduce the impact.

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32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	The objective seeks to develop and undertake audits of excessive cluttering of transport signage. This may discourage inappropriate small-scale change to the benefit of the special qualities.	There may be a steady decline in local character and a loss of sense of place.
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	Neutral	Neutral
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	The objective seeks to increase awareness and understanding of the special qualities of the local natural and built environment and engage with communities to identify local issues and develop solutions for their conservation and enhancement. This may discourage inappropriate small-scale change to the benefit of the special qualities.	There may be a steady decline in local character and a loss of sense of place.
36: To support local communities in moving towards sustainable low carbon living.	The special qualities could be degraded. The objective seeks to encourage small-scale renewable energy schemes to help contribute to energy reduction targets but it does not seek to safeguard the special qualities.	Potentially a better outcome as the landscape character will be considered. There are national policies and initiatives to roll out climate change strategies and grants. National planning guidance is likely to conserve the landscape character.
38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.	The objective seeks to promote renewable energy sources that are complementary to the AONB character. However, there will be no control on small-scale domestic initiatives. These may degrade the character and setting of settlements.	There is the possibility of a steady decline in the quality of the special features and services through small-scale incremental development. The effect will be limited with the proper application of national planning guidance.

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40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.	The objective seeks to work with partners to address coastal squeeze and secure coastal management regimes that allow saltmarsh accretion and land level rise to offset sea level rise. There will be action to manage access to the coastal zone so that fragile 'barrier' habitats are not damaged. This will enhance their coastal protection function. The objective also seeks to raise awareness of the inevitability of coastal change through partnership literature and media articles. This will support better decision making and maintain the quality of the seascape.	There will be a limited effect of the AONB because of the requirements of national planning guidance. There may be a steady decline in seascape character and an increased risk of flooding.

The proposed objectives give greater environmental benefits than the 'do-nothing situation.

#### **Table 11: Marine Planning trends**

Development of Marine Protected areas will be beneficial to biodiversity and geodiversity. The effect of wind turbines in the estuary is unknown but they may affect migratory birds. There is a landscape/seascape impact in views across Solway. Marine Invasive Non-Native Species do have an adverse impact on biodiversity but there is monitoring on both sides of the Solway estuary. Mussel beds are now open and there is a possible adverse impact on biodiversity / geodiversity of the dune and foreshore with little local economic impact.

Management Plan Strategic Objectives	Effects of proposed actions	Effects of do nothing situation
1: To ensure that the distinctive character and qualities of the Solway Coast AONB landscape and seascape are understood, conserved, enhanced and restored.	The character of the Solway Coast landscape is intricately linked to its coastal and marine setting. The objective will use and update the Solway Coast AONB Landscape and Seascape Character Assessment (2010) to scrutinise development proposals against an appreciation of landscape character. This will maintain the quality of the ecosystem service.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of ecosystem services through inappropriate change.  National planning guidance may conserve the seascape character.
2: To ensure that sustainable farming practices become the primary means by which the distinctive farmland landscapes and qualities of much of the AONB are maintained	Neutral	Neutral
5: To ensure the effective conservation and management of the saltmarsh habitat for its unique character, specialist species and role regulating coastal processes.	The objective seeks to conserve the Inner Firth Intertidal Flats for nature conservation for SPA/SAC status and restore areas of reclaimed farm land to marshes where possible. Monitoring changes in sea–level and coastal erosion will determine any trends or patterns and may ensure better management of marine processes.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of ecosystem services through inappropriate change. National planning guidance may conserve the seascape character.

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6: To ensure that organisations responsible for the conservation and enhancement of the natural beauty of the dunes deliver appropriate actions and that the dunes are enjoyed sensitively by all users.	Neutral	Neutral
7: To ensure continued creation, restoration and enhancement of new and restored raised mire habitat.	Neutral	Neutral
8: To ensure the conservation, enhancement, expansion and enhanced connectivity of habitats, creating resilient ecological networks across the Solway coast AONB and beyond with a focus on 2020 priorities.	The objective seeks to ensure the conservation and protection of Marine Protected Areas and coastal dunes and marshes.  Developing an AONB Biodiversity 2020 Local Delivery Plan will encourage focused action. Much of the marine environment is designated for its wildlife importance. The objective seeks to ensure that at least 90% of SSSIs are in favourable condition by 2020. Advocating the implementation of fishery orders to manage shellfishing will minimise impacts on the natural services of the AONB. This objective seeks to reduce or eradicate, invasive nonnative species and plant diseases by coordinating an assessment and management programme. It will also raise awareness of the risks of trampling and disturbance on Honeycomb Reefs in the Allonby Bay Marine Protected Area	There may be a decline in the quality of the marine environment, with a steady loss of species.
10: To ensure conservation and understanding of geodiversity and its importance in the landscape and biodiversity of the AONB.	Neutral	Neutral
14: To make a significant contribution to the delivery of the Water Framework Directive by improving water quality and water body status in and around the AONB and Coast.	The objective seeks to investigate and resolve with United Utilities, bathing water quality issues at Allonby Bay North. This will enhance the marine environment and support the ecosystem services.	A gradual degradation of the marine environment.
15: To ensure the effective conservation and management of the Solway Coast AONB historic environment, including historic buildings, archaeological sites, heritage landscapes and heritage fisheries.	The objective seeks to promote Haaf Net Fishing as a sustainable and traditional method of sea fishing for salmonids. This supports the ecosystem services and the heritage character of the area.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of cultural services through inappropriate change.

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17: To ensure the special qualities of the AONB and its setting are fully respected in all Local Plan (National Plans) documents and decision-making processes have regard to the Statutory Management Plan.	The objective seeks to engage with the Solway Energy Gateway Scheme as to proposals for a Solway Barrage. This may reduce any adverse impact on the marine environment and the setting of the AONB.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of ecosystem services through inappropriate change.  National planning guidance may conserve the seascape character.
18: To ensure that development in the AONB and its setting, is of a nature, scale, location and design so that it meets community need without compromising the special qualities of the Solway Coast AONB.	Neutral	Neutral
19: To ensure that a wide range of opportunities exist for all to gain physical access with sound infrastructure, and information about the AONB to understand its special qualities	The effects are limited but the objective does promote coastal safety by ensuring effective signage is in place.	Neutral
22: To ensure the developing tourism industry and associated economy is environmentally sustainable, based on, and actively supports, the special qualities of the Solway Coast AONB and brings benefits to the community and has a consistent recognisable brand	By promoting locally produced food and other products, the objective reinforces local distinctiveness and add value to the local economy.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of ecosystem services through inappropriate change.
23: To ensure an increase in heritage management, tourism, hospitality and outdoor education to help secure the future of the area.	By promoting the sustainable management of heritage assets in the AONB, traditional fisheries will remain a part of the local character. This supports the provisioning and cultural ecosystem services.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of cultural services through inappropriate change.
25: To ensure that access to securing of funding such as AE, will support sustainable farming practices and support implementation of identified measures that support the conservation of natural beauty.	By promoting locally produced food and other products, the objective reinforces local distinctiveness and add value to the local economy.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of ecosystem services through inappropriate change.

Solway Coast AONB I	Management Plan Review SEA Environme	ental Report (Final)
26: To ensure opportunities are there to access training and employment and build skills base in sectors related to the purpose of designation such as land management and sustainable tourism.	By working with the Coastal communities Schemes (and FLAG), this objective will promote coastal businesses and sustainable tourism. This will enable traditional fisheries to remain a part of the local character. This supports the provisioning and cultural ecosystem services.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of ecosystem services through inappropriate change.
28: Across the sectors to develop an economy based on the valuing of, and support of, the key attributes of the AONB with a consistent brand that makes the link to the landscape.	The objective seeks to promote the special qualities of the area and supports sustainable growth that values the key attributes of the landscape. This supports the ecosystem services and the marine character of the area. This may modify actions.	Management decisions may be influenced by national market or grant aid priorities with no modification for local needs. This may result in the gradual degrading of ecosystem services through inappropriate change.
30: To ensure the current level of local services and access to those services by all is maintained and enhanced where possible to support sustainable communities.	Neutral	Neutral
31: To encourage infrastructure improvements to achieve superfast broadband and mobile phone coverage for the whole of the AONB without a significant adverse impact.	Neutral	Neutral
32: To ensure the special qualities of the AONB are respected in the planning, design, provision and management of all types of transport and associated infrastructure.	Neutral	Neutral
34: To ensure fostering a community interest and culture linked to the AONB's strong sense of place.	Neutral	Neutral
35: To enable communities to get involved in the custodianship of the AONB through engaging with the management and support of key assets.	Neutral	Neutral
36: To support local communities in moving towards sustainable low carbon living.	Neutral	Neutral

38: To ensure carbon emissions within the AONB are reduced by reducing energy consumption, applying energy conserving measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.

The objective promotes renewable energy sources that are complementary to the AONB character by working with planning authorities on matters relating to wind turbines and the suggested Solway Barrage. These all have the potential to degrade the seascape character.

There is the possibility of a steady decline in the quality of the special features and services through development. The setting of the AONB is at risk. The effect will be limited with the proper application of national planning guidance.

40: To work with SMP2 policy in managing coastal change and securing adaptive management of coastal habitats.

The objective seeks to work with partners to address coastal squeeze and secure coastal management regimes that allow saltmarsh accretion and land level rise to offset sea level rise. There will be action to manage access to the coastal zone so that fragile 'barrier' habitats are not damaged. This will enhance their coastal protection function. The objective also seeks to raise awareness of the inevitability of coastal change through partnership literature and media articles. This will support better decision making and maintain the quality of the seascape.

There will be a limited effect of the AONB because of the requirements of national planning guidance. There may be a steady decline in seascape character and an increased risk of flooding.

The proposed objectives give greater environmental benefits than the 'do-nothing situation.

# Appendix 10: SEA Objectives and links to State of the AONB Reporting

	Indicator 5-point quality scale				
Sco	Score Comment				
	Fit for purpose	1			
	Adequate	2		Some minor imp	rovements desirable
	Indicative only	3		Not considere	d accurate
	Inadequate	4		Little relevance to	the AONB
	Absent	5		No ava	ilable data
	Objectives	SEA Indicators	Quality	Comment	Average
		Environmental Ob	jectives		
E1	To conserve and enhance the landscape	Local Landscape / Seascape Character Assessments	1	Published 2010, a commitment to review	
		Extent, condition and change in characteristic landscape features.	1	In landscape / seascape assessment	
		Fixed point photography	5	None presented	
		Light pollution maps	5	Linked to national initiatives. Discussed but not reported	
		Tranquillity index	1	National Framework Data and State of the AONB Report	
		The uptake of selected Environmental Stewardship options that contribute towards the good condition of landscape elements and/or landscape character	1	National Framework Data and State of the AONB Report	2.3
E2	To conserve and enhance habitats, flora and fauna	% of SSSIs in favourable condition	1	National Framework Data and State of the AONB Report	
		The area of priority BAP habitats and the % under favourable management	2	Condition data is linked to SSSIs, only extent is AONB wide.	
		The condition of broad BAP habitats in SSSIs	1	National Framework Data and State of the AONB Report	
		The favourable conservation status of European protected species	1	Very detailed for SSSI and links to Natura 2000 given in State of the AONB Report	
		Population and distribution of locally	5	Not presented	2.3

		important species			
		Population and distribution of non-native invasive species	5	Not presented	
		The area of deciduous woodland plus the area of Forestry Commission estate	1	National Framework Data – note only 4ha of woodland in the AONB	
		The area managed under Environmental Stewardship	1	National Framework Data	
		The average annual values of current Environmental Stewardship agreements	5	National Framework Data	
		The area covered by the England Woodland Grant Scheme (WGS), plus the area of ancient woodland in WGS	1	National Framework Data	
E3	To conserve and enhance the historic	Changes in the Historic Landscape Character	5	Not presented	
	environment, heritage assets and their setting	Number of heritage assets, including listed buildings, scheduled monuments, registered parks & gardens, registered battlefields and undesignated assets	2	National Framework Data. Very good for designated assets. The State of the AONB Report notes that there are local records but not accessed for the update	
		Heritage at Risk – both statistics eg % of heritage assets 'at risk, plus GIS datasets under licence	1	National Framework Data	
		Number of conservation areas and % of area covered by designation	2	State of the AONB Report	
		% of conservation areas in the AONB with an up-to-date character appraisal	1	State of the AONB Report	
		Improvements in the condition of historic and archaeological sites and features	5	Not presented	2.7
E4	To conserve and enhance the	Main land uses (classification)	1	State of the AONB Report	
	environmental quality of land, air and water	Number / type of livestock	1	State of the AONB Report	1.7

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	resources through the use of sustainable practices	Number and size of holdings	1	State of the AONB Report	
	practices	Management of wildlife rich arable farmland – no: of ES arable options taken up	1	National Framework Data	
		Ecological status of rivers and surface water bodies	1	National Framework Data and State of the AONB Report	
		Pollution incidents (by source)	1	State of AONB Report and Environment Agency	
		Flood risk	1	State of AONB Report	
		Water resource features	1	State of the AONB Report	
		% rivers and lakes achieving good ecological status environment data	1	National Framework Data and State of the AONB Report	
		% Transitional water bodies achieving good ecological status environment data	1	National Framework Data and State of the AONB Report	
		% Coastal water bodies achieving good ecological status environment data	1	National Framework Data and State of the AONB Report	
		% Shellfish water bodies achieving good ecological status environment data	5	None presented	
		% of bathing water with quality compliance under the Bathing Water Directive	1	State of the AONB Report	
		Capacity of water treatment works	3	Reference in the State of the AONB Report in relation to bathing waters	
		Water availability	5	No data presented, will be held by Environment Agency.	
		Water abstraction data	2	State of the AONB Report	
E5	To minimise waste and, through re-use, recycling and recovery,	Spatial location of mineral reserves	5	No data presented, will be held by a third party.	
	reduce the use of landfill	Number of village recycling schemes in operation	5	No data presented, will be held by a third party	
		Capacity of waste management facilities	5	No data presented, will be held by a third	5

		to deal with current and future waste arisings of all types.		party	
E6	To reduce greenhouse gas emissions and encourage sustainable forms of energy	AQMAs, their objectives and whether they are being met.	1	State of the AONB Report – date is recorded for Natura 2000 sites	
	production that integrate with the landscape	Emissions of air pollutants by source.	1	State of the AONB Report	
	'	Headline air quality indicator (future trends in air quality)	3	Data is available for a wider area than the AONB, held by third party	
		Greenhouse gas emissions (M tonnes carbon equivalent)	3	State of the AONB Report	
		Greenhouse gas emissions by source	3	State of the AONB Report	
		Area of lowland raised bog	1	State of the AONB Report	2
E7	To safeguard human life and Quality of Life	Length of public rights of way	1	National Framework Data	
		Amount and distribution of new open space / green infrastructure	5	But likely that the data is collected	
		The amount of open and linear access brought about by agrienvironment agreements	1	National Framework Data	
		% of the protected landscape as 'accessible natural environment'	1	National Framework Data	
		The area of land that is actually accessible under CROW, plus land with existing access rights that predetermine CROW Access	1	National Framework Data	1.8
E8	To ensure no adverse effect arises on population (i.e.	Socio-economic profiles	1	National Framework Data and State of the AONB Report	
	demographic balance)	Total resident population of AONB	1	State of the AONB Report	
		Percentage of population of working age	1	Census data not cut to AONB boundary- State of the AONB Report uses transparent adjustment	1.9

		Levels of deprivation	1	Indices of deprivation and State of the AONB Report	
		Health inequality data	3	State of the AONB Report	
		Standard Mortality Ratios	3	State of the AONB Report	
		Disability data	3	State of the AONB Report	
		Access to key services	1	Census data not cut to AONB boundary- State of the AONB Report uses transparent adjustment	
		Distribution of current housing stock – by tenure and type including affordable housing	1	Census data not cut to AONB boundary- State of the AONB Report uses transparent adjustment	
		Level of motor vehicle traffic	1	Census data not cut to AONB boundary- State of the AONB Report uses transparent adjustment	
		Percentage of journeys made by foot or cycle	1	Census data not cut to AONB boundary- State of the AONB Report uses transparent adjustment	
		Average distance and travel times by journey type.	5	None presented	
		Congestion levels	5	None presented	
		Agricultural Survey statistics	1	State of the AONB Report	
		Tourism statistics, including % employed in tourism and the number of tourism businesses in the protected landscape and within 5 miles	1	Defra Rural Statistics Unit hold data but data suppressed where the number of observations is too low. State of the AONB Report.	
		Employment rate by sector	1	Census data not cut to AONB boundary- State of the AONB Report uses transparent adjustment	
E9	To avoid significant adverse effects	The uptake of selected ES options that	2	National Framework Data but no analysis	2

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between the above interrelationships	contribute towards the protection of natural resources		shown	
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## Appendix 11: Consultation response from the Environmental Bodies

The Scoping Report was subject to consultation in the summer of 2014 and responses were received from Natural England, the Environment Agency and English Heritage. The SEA objectives and baseline were updated accordingly. The Environmental Report was consulted upon in the winter of 2014. English Heritage agreed with the report. There was no formal response from Natural England or the Environment Agency and this was taken as an approval. However, in the light of responses to the draft management plan, the AONB Partnership revised some text and redrafted the objectives and actions. Consequently, there was a further assessment and this was sent to the agencies in May 2014.

# Response to SEA Environmental Report draft 1 from English Heritage 6<sup>th</sup> February 2015

Dear Sirs.

#### Solway Coast AONB – draft SEA Report

The SEA considers the historic environment and we welcome the specific objective within the assessment. English Heritage has produced guidance on SEA relevant to the historic environment including additional information relating to relevant plans and programmes, using baseline information and considering monitoring indicators. The link to this document is as follows:

http://www.english-heritage.org.uk/publications/strategic-environ-assessment-sustainabilityappraisalhistoric-environment/SA SEA final.pdf

The SEA states that the AONB Management Plan has a strong positive outcome for the historic environment. English Heritage considers that the historic environment is an important element of the AONB and this is not fully recognised in the AONB Management Plan to date. We would request that further detail is added within the text of the Management Plan as well as the other matters discussed in the separate response provided on the Plan (dated 6th February 2015).

If you would like to discuss any of these comments further or require any clarification please do not hesitate to contact me.

Yours sincerely

# Response to SEA Environmental Report draft 1&2 from Natural England 4<sup>th</sup> August 2015

We consider that the Plan has broadly followed the guidance contained in CA23 and CA221 and therefore presents a comprehensive strategy for the management of the AONB.

There are no outstanding concerns beyond those areas already identified in the HRA assessment which require further HRA consideration at the implementation stage.

We are pleased that at all stages of the development and consultation process our comments have been carefully considered and have been accepted and incorporated.