

ARNSIDE AND SILVERDALE AONB DEVELOPMENT PLAN DOCUMENT

Habitats Regulations Assessment Screening Report

JULY 2017

Incorporating

EC HARRIS
BUILT ASSET
CONSULTANCY



CONTACTS

JO WEAVER/ LIZ TURLEY

Arcadis.
The Mill
Brimscombe Port
Stroud
GL5 2QG
United Kingdom

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Arnside and Silverdale AONB Development Plan Document

Habitats Regulations Assessment Screening Report

Author Jo Weaver

Checker Liz Turley

Approver David Hourd/ Stewart Lowther

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This report dated 16 July 2017 has been prepared for Lancaster City Council and South Lakeland District Council (the "Client") in accordance with the terms and conditions of appointment dated 12 February 2015(the "Appointment") between the Client and **Arcadis Consulting (UK) Limited** ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

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1 Introduction and Purpose

1.1 Background

- 1.1.1 This Screening Report has been prepared by Arcadis (UK) Ltd on behalf of South Lakeland District Council and Lancaster City Council as part of the statutory Habitats Regulations Assessment (HRA) of the Arnside and Silverdale Area of Outstanding Natural Beauty (AONB) Development Plan Document (DPD).
- 1.1.2 The DPD will focus on delivering sustainable development in the AONB for a 15 year period 2016 to 2031 and will include:
- policies to guide decisions on planning applications;
 - proposals for the development of housing, employment and other land uses; and
 - policies that seek the conservation and enhancement of the natural and built environment including landscape quality and character.
- 1.1.3 The purpose of the AONB designation will be at the heart of the DPD; the document will reflect the national importance of the AONB. The DPD will take into account the key management objectives contained within the AONB Management Plan which aim to realise the vision and provide direction for positive action. These are grouped under the following three themes:
- an outstanding landscape, rich in wildlife and cultural heritage;
 - a thriving sustainable economy and vibrant communities; and
 - a strong connection between people and the landscape.
- 1.1.4 The DPD has been prepared in accordance with the procedures set out in the Town and Country Planning (Local Planning) (England) Regulations.
- 1.1.5 The framework of policies and proposals contained within the DPD will seek to regulate and control the development and use of land and provide the basis for consistent and transparent decision making on individual planning applications.
- 1.1.6 The Arnside and Silverdale AONB lies with the South Lakeland District Council and Lancaster City Council boundaries. Planning policy within the Local Plans of these local authorities will also need to be considered when determining planning applications within the AONB. As stated in Section 1.3 of the AONB DPD, *'the AONB DPD is only one of a number of plans and strategies affecting the AONB. It will complement existing plans and strategies including the AONB Management Plan and other existing and emerging local plan documents. **The AONB DPD must be read alongside these other documents in order to understand the full range of requirements to which new development in the AONB will be subject.**'* The other documents include National Planning Policy, the Lancaster District Local Plan, the South Lakeland Local Plan and the Arnside and Silverdale AONB Management Plan (further information regarding these plans is presented in Section 2.4).

1.2 Purpose of this Report

- 1.2.1 HRA is a legal requirement and concerns the assessment of the plan's effects on designated sites of European Nature Conservation Importance, including Special Areas of Conservation (SAC) and Special Protection Areas (SPA). It also considers effects on Ramsar sites, potential SPAs and candidate SACs (hereafter collectively referred to as 'European sites').
- 1.2.2 This report is the first stage in the HRA process, commonly referred to as Screening. It identifies whether or not the Arnside and Silverdale AONB DPD is likely to result in significant effects upon a European Site either alone or in-combination with other plans or projects and subsequently whether or not an Appropriate Assessment will be required. If Appropriate Assessment is required this document will outline its proposed scope.

1.3 Background to Habitats Regulations Assessment

- 1.3.1 Under Article 6 of the Habitats Directive (and Regulation 102 of the Habitats Regulations), an assessment is required where a land use plan may give rise to significant effects upon a Natura 2000 site (also known as a 'European site').
- 1.3.2 Within the Arnside and Silverdale AONB there are six such sites and within a 20km radius of the AONB boundary there are a further eight sites
- 1.3.3 These sites form part of the Natura 2000 network that could potentially be affected by the DPD. Natura 2000 is a network of areas designated to conserve natural habitats and species that are rare, endangered, vulnerable or endemic within the European Community. This includes Special Areas of Conservation (SAC), designated under the Habitats Directive for their habitats and/or species of European importance, and Special Protection Areas (SPA), classified under Directive 2009/147/EC on the Conservation of Wild Birds (the codified version of Directive 79/409/EEC as amended) for rare, vulnerable and regularly occurring migratory bird species and internationally important wetlands.
- 1.3.4 In addition, it is a matter of law that candidate SACs (cSACs) and Sites of Community Importance (SCI) are considered in this process; furthermore, it is Government policy that sites designated under the 1971 Ramsar Convention for their internationally important wetlands (Ramsar sites) and potential SPAs (pSPAs) are also considered.
- 1.3.5 The requirements of the Habitats Directive are transposed into English and Welsh law by means of the Conservation of Habitats and Species (Amendment) Regulations 2010¹.
- 1.3.6 Regulation 61, Part 6 of the Habitats Regulations states that:
- 'A competent authority, before deciding to undertake, or give consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of the site, must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'*
- 1.3.7 Regulation 62, Part 6 of the Habitats Regulations states that:
- 'If the competent authority are satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest (which, subject to paragraph (2), may be of a social or economic nature), they may agree to the plan or project notwithstanding a negative assessment of the implications for the European site or the European offshore marine site (as the case may be).'*
- 1.3.8 Regulation 66, Part 6 of the Habitats Regulations states that:
- 'Where, in accordance with regulation 62 (considerations of overriding public interest)— (a) a plan or project is agreed to, notwithstanding a negative assessment of the implications for a European site or a European offshore marine site, or (b) a decision, or a consent, permission or other authorisation, is affirmed on review, notwithstanding such an assessment,— the appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected.'*
- 1.3.9 The overarching aim of HRA is to determine, in view of a site's conservation objectives, whether a plan, either in isolation and/or in combination with other plans, would have a significant adverse effect on the European site. If the Screening (the first stage of the process, see Section 3 for details) concludes that significant effects are likely, then Appropriate Assessment must be undertaken to determine whether there will be adverse effects on site integrity.

¹ SI 2010/490: Explanatory memorandum to the Conservation of Habitats and Species Regulations, 2010.

1.4 Legislation and Guidance

1.4.1 This HRA screening report has drawn upon the following legislation and guidance:

- The Conservation of Habitats and Species Regulations 2010, as amended. In 2012, these Regulations were amended to transpose more clearly certain aspects of the Habitats Directive. No fundamental changes to the Regulations were made.
- European Commission, Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC.
- European Commission, Guidance document on Article 6(4) of the Habitats Directive 92/43/EEC.
- DTA Publications Limited (June 2016) The Habitats Regulations Assessment Handbook.

2 The AONB DPD

2.1 Background and Purpose

- 2.1.1 The Arnside and Silverdale AONB is located on the boundary of Lancashire and Cumbria, bounded to the west by Morecambe Bay and to the east by the A6. The AONB is characterised by a mosaic of low limestone hills, woodland, wetland, pastures, limestone pavements, intertidal flats, coastal scenery and distinctive settlements.
- 2.1.2 The DPD for the AONB focuses on the conservation and enhancement of the AONB and will ensure consistent policies and decisions across the whole of the AONB in respect of the conservation significances and the response to development pressures. The DPD is designed to deliver development to meet local needs in a way that reflects the purpose of the designation and that conserves and enhances the landscape character of the AONB.
- 2.1.3 As described in Section 1.1, the AONB DPD is one of a number of plans affecting the AONB. Section 2.4 outlines the links with other plans which must be read alongside the AONB DPD in order to understand the full range of requirements to which new development within the AONB must adhere to before planning consent can be given.

2.2 Overall planning strategy

- 2.2.1 The overall Vision for the AONB is set out in the adopted Management Plan. The Vision for the AONB DPD is designed to reflect and supplement the adopted Management Plan Vision, the two relevant Local Plans, national policy, the evidence gathered and wider context. The supplementary vision for the AONB DPD is as follows:

'Within the Arnside & Silverdale AONB, housing, employment, services, infrastructure and other development is managed and delivered to contribute towards meeting the needs of the communities of the AONB in a way that:

- *Creates vibrant, diverse and sustainable communities with a strong sense of place;*
- *Maintains a thriving local economy; and*
- *Protects, conserves and enhances the special qualities of the AONB, including landscape character and visual amenity, wildlife, geology, heritage and settlements character.'*

- 2.2.2 In order to achieve the Vision for the AONB DPD, seven objectives have been produced as follows:

- Objective 1: To protect, conserve and enhance the special qualities of the Arnside & Silverdale AONB, including landscape character and visual amenity, wildlife, geology, heritage and settlement character; natural, historical and landscape qualities of the AONB.
- Objective 2: To ensure that all development is appropriate and sustainable in its location and design, is of high quality and avoids adverse impact on the special qualities of the AONB.
- Objective 3: To ensure that planning policy is shaped by effective community engagement.
- Objective 4: To provide a sufficient supply and mix of high quality housing to contribute to meeting the needs of the AONB's communities, with an emphasis on affordable housing and without adverse impact on the landscape character and Special Qualities of the AONB.
- Objective 5: To support rural employment and livelihoods, and sustainable tourism.
- Objective 6: To provide the necessary services and infrastructure to support both existing and new development.
- Objective 7: To support the development of a safe and sustainable transport network, including paths and cycleways, to improve connectivity, reduce the need to travel and encourage sustainable forms of transport.

2.3 Policies within the DPD

2.3.1 The policies within the DPD are listed below. The 18 allocation sites associated with the Proposed Development Allocations – Housing and Proposed Development Allocations – Mixed Use are shown on ~~XX~~.

Overall Strategy

Policy AS01 – Development Strategy

Policy AS02 – Landscape

Policy AS03 – General Requirements

Policy Issues

Policy AS04 – Housing Provision

Policy AS05 – Natural Environment

Policy AS06 – Public Open Space and Recreation

Policy AS07 – Key Settlement Landscapes

Policy AS08 – Historic Environment

Policy AS09 – Design

Policy AS10 – Economic Development and Community Facilities

Policy AS11 – Infrastructure for New Development

Policy AS12 – Camping, Caravan and Tourist Accommodation

Policy AS13 – Water Quality, Sewerage and Sustainable Drainage

Policy AS14 – Energy and Communications

Policy AS15 – Advertising and Signage

Proposed Development Allocations - Housing

Policy AS16 – Proposed Housing Allocations

Policy AS17 – Proposed Mixed Use Allocations

Policy AS18 – A6 Land off Queen's Drive, Arnside

Policy AS19 – A8/A9 Land on Hollins Lane, Arnside

Policy AS20 – A11 Land at Briery Bank, Arnside

Policy AS21 – B108 Land at Church Street, Beetham

Policy AS22 – B112 Land at Stanley Street, Beetham

Policy AS23 – S56 Land at Whinney Fold, Silverdale

Policy AS24 – W88 Land North West of Sand Lane, Warton

Policy AS25 – W130 Land North of 17 Main Street, Warton

Proposed Development Allocations – Mixed Use

Policy AS26 – A25/A26/A27 Station House and Yard, Arnside

Policy AS27 – B35/B38/B81/B125 Land at Sandside Road and Quarry Lane, Sandside

Policy AS28 – S70 Land at the Railway Goods Yard, Silverdale

Commented [LT1]: Can the Council provide a reference to an AONB DPD figure where all of the allocation sites can be seen?

Commented [LT2]: Can the Council confirm what changes have been made to these policies based on the inclusion of the new sites? Policy numbers for the new sites are missing

2.4 Link to other Plans

2.4.1 As a requirement of National Planning Policy (National Planning Policy Framework, 2012), it is necessary for the AONB DPD to comply with all relevant policies within the wider adopted plans within the region. It should be noted that a number of these plans are currently under review, however, only those which are currently adopted will be considered in the HRA Screening of the AONB DPD.

2.4.2 The policies within the adopted plans, which are considered relevant to the AONB DPD comprise the following:

The Lancaster District Local Plan

2.4.3 The relevant parts of the Lancaster Local Plan are:

- The Lancaster District Core Strategy (2008), which sets out the overall development strategy and vision for the District. It identifies the AONBs as key elements of the District's environmental capital, identifies the need for a spatial strategy for the AONB and identifies Silverdale as a focus to meet local development needs in the area.
- The Lancaster District Development Management Policies (2014), which sets out policies used to help determine planning applications in Lancaster District. It identifies Warton and Silverdale as sustainable settlements in which it is appropriate for some development to take place. The DPD is written in anticipation that certain policy areas may be subject to further consideration in the preparation of the Arnside & Silverdale AONB DPD.
- Saved policies of the Lancaster District Local Plan (2004).

2.4.4 Lancaster City Council is currently preparing a Land Allocations DPD for the whole District, excepting the Arnside & Silverdale AONB. When complete, the Land Allocations DPD will replace all other allocations in the District for the area outside the AONB.

The South Lakeland Local Plan

2.4.5 The relevant parts of the South Lakeland Local Plan are:

- The South Lakeland Local Plan - Core Strategy (2010), which sets out the overall development strategy and vision for the District, recognises and safeguards the special characteristics of the AONB and identifies Arnside and Storth/Sandside as Local Service Centres.
- The South Lakeland Local Plan – Land Allocations (2013), which identifies the AONB as an area for which a specific DPD will be prepared and sets out some issues that the plan is intended to address including, an indicative requirement of 123 dwellings on the South Lakeland side, review of settlement boundaries, landscape and building design and policies on new visitor facilities. The Local Plan - Land Allocations does not allocate sites in the AONB.
- Saved Policies of the South Lakeland Local Plan (1997) including Development Management Policies, policies identifying important open spaces in the AONB and an unimplemented allocation for local employment use at Quarry Lane, Storth.

2.4.6 South Lakeland is currently preparing a Development Management Policies document. Existing policies set out in the old 2006 Local Plan will be superseded by the new Development Management Policies document. The new policies will complement the existing Core Strategy policies. Policies within the document will apply to development within the AONB except where the policies in the AONB DPD set out an AONB-specific approach. A Preferred Options draft of the Development Management Policies document for South Lakeland was out for public consultation alongside this document from 10 November 2016 – 3 January 2017.

The Arnside & Silverdale AONB Management Plan

2.4.7 The statutory AONB Management Plan is a critical document. It is prepared by the AONB Partnership (which includes Local authorities, Parish Councils, Government agencies, local businesses and landowners and community groups), who are committed to delivering it. The current Management Plan was adopted in March 2014 and covers the 5 years to 2019. It defines the Special Qualities of

Commented [LT3]: The text below was taken directly from AONB DPD, has this been updated in the latest version of the DPD to reflect recent changes to both plans?

the AONB, sets out the shared vision for the AONB and sets out objectives and actions by which the primary purpose of the AONB will be delivered.

2.4.8 The aims of the Management Plan reflect the primary purpose of the AONB and are to:

- conserve and enhance the natural beauty and Special Qualities of the AONB.
- promote and support sustainable agriculture, forestry and other rural industries.
- promote the social and economic wellbeing of people living within the AONB.
- increase public understanding and enjoyment of the AONB.
- meet the recreational needs of local residents and visitors alike – where these are compatible with the primary purpose of AONB designation.

2.4.9 Objective 10 of the Management Plan is to implement a development planning approach that delivers services, infrastructure and affordable housing to meet local community need while conserving and enhancing landscape character and the Special Qualities of the AONB. The AONB DPD is a key means by which both Objective 10 and the wider strategy and vision of the Management Plan will be delivered. The Management Plan itself is not part of the statutory Local Plan for the area, but it is a material consideration in making planning decisions.

2.5 Consultation

2.5.1 A previous Screening Report was produced by Arcadis in October 2016. This was based on an emerging draft version of the Plan. Consultation with Natural England (NE) was carried out for the previous Screening Report (January 2017). Comments made by NE have been taken into consideration in this updated Screening Report, in particular providing further justification for the conclusions reached in this HRA Report.

3 The Habitats Regulations Assessment Process

3.1 Stages of HRA

3.1.1 This section provides an outline of the stages involved in HRA and the specific methods that have been used in preparing this report.

3.1.2 The requirements of the Habitats Directive comprise four distinct stages:

Stage 1: Screening is the process which initially identifies the likely impacts upon a European site of a project or plan, either alone or in-combination with other projects or plans. It is important to note that the burden of evidence is to show, on the basis of objective information, that there will be no significant effect; if the effect may be significant, or is not known, that would trigger the need for an Appropriate Assessment. There is European Court of Justice case law to the effect that unless the likelihood of a significant effect can be ruled out on the basis of objective information, and adopting the precautionary principle, then an Appropriate Assessment must be made.

Stage 2: Appropriate Assessment is the detailed consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's conservation objectives and its structure and function. This is to determine whether or not there will be adverse effects on the integrity of the site. This stage also includes the development of mitigation measures to avoid or reduce any possible impacts.

Stage 3: Assessment of alternative solutions is the process which examines alternative ways of achieving the objectives of the project or plan that would avoid adverse impacts on the integrity of the European site, should avoidance or mitigation measures be unable to cancel out adverse effects.

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain. At Stage 4, an assessment is made with regard to whether or not the development is necessary for imperative reasons of overriding public interest (IROPI). If it is, this stage also involves detailed assessment of the compensatory measures needed to protect and maintain the overall coherence of the Natura 2000 network.

3.2 Approach to Screening

3.2.1 This HRA Report takes into account the requirements of the Habitats Regulations and relevant guidance produced by David Tyldesley Associates².

3.2.2 The following stages have been completed:

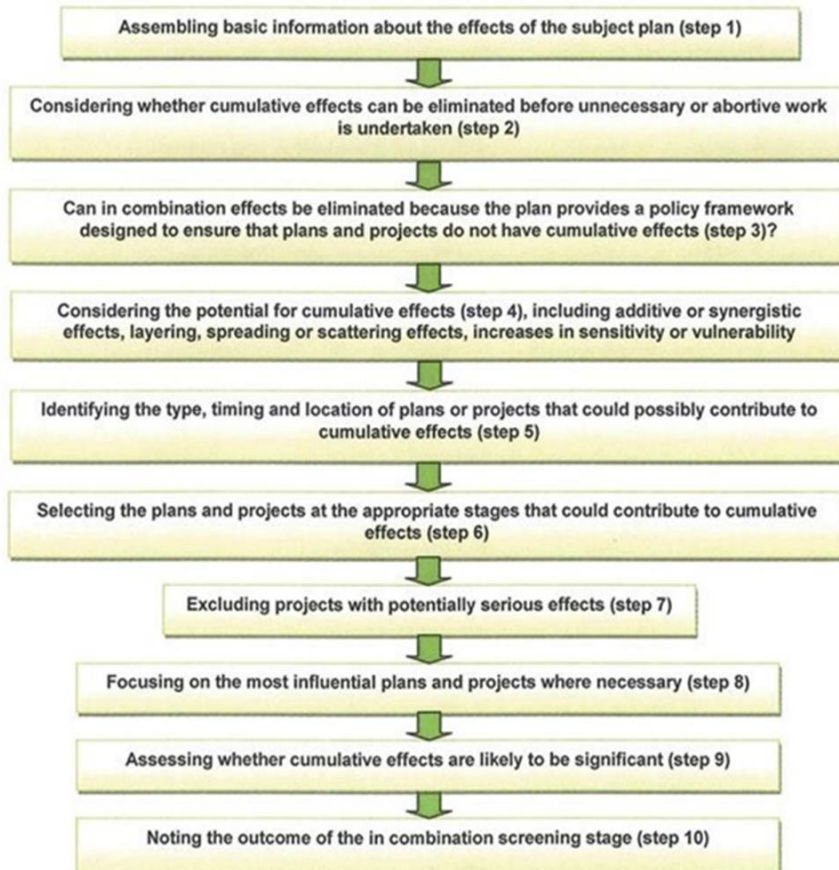
- Identification of all European sites potentially affected (including those outside of the NPA);
- A review of each site, including the features for which the site is designated, the Conservation Objectives, the Site Improvements Plans and an understanding of the current conservation status and the vulnerability of the individual features to pressures/threats;
- A review of the policies which have the potential to affect the European sites, and whether the sites are vulnerable to these effects (this has included a categorisation of the potential effects of the Policy, in line with current guidance); and
- A consideration of any impacts in-combination with other plans or projects.

3.3 In-combination Effects

3.3.1 As outlined in Section 3.1, it is necessary for HRA to consider in-combination effects with other plans and projects.

² DTA Publications Limited (June 2016) The Habitats Regulations Assessment Handbook.

3.3.2 Where an aspect of a plan could have some effect on the qualifying feature(s) of a European site, but the effects of that aspect of the plan alone would not be significant, the effects of that aspect of the plan will need to be checked in-combination, firstly with other effects of the same plan, and then with the effects of other plans and projects.



3.3.3 The flow chart below (and subsequent text in paragraphs) is taken from DTA Publications Limited, The Habitats Regulations Assessment Handbook (the HRA Handbook³), and illustrates the outline methodology for the in-combination assessment.

3.3.4 If the prospect of cumulative effects cannot be eliminated in steps 2 and 3 in the flowchart above, it is necessary to consider how the addition of effects from other plans or projects may produce a combined adverse effect on a European site that would be significant. Taking the effects which would not be likely to be significant alone, it is necessary to make a judgement as to whether these effects would be made more likely or more significant if the effects of other plans or projects are added to them. Most

³ DTA Publications Limited (June 2016) The Habitats Regulations Assessment Handbook.

cumulative effects can be identified by way of the following characteristics. Could additional effects be cumulative because they would:

- a. Increase the effects on the qualifying features affected by the subject plan in an additive, or synergistic way
 - b. Increase the sensitivity or vulnerability of the qualifying features of the site affected by the subject plan?
 - c. Be felt more intensely by the same qualifying features over the same area (a layering effect), or by the same qualifying feature over a greater (larger) area (a spreading effect), or by affecting new areas of the same qualifying feature (a scattering effect)?
- 3.3.5 In accordance with DTA Publications Limited, The Habitats Regulations Assessment Handbook⁴, it will be necessary to look for plans or projects at the following stages:
- a. Applications lodged but not yet determined.
 - b. Projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration.
 - c. Refusals subject to appeal procedures and not yet determined.
 - d. Projects authorised but not yet started.
 - e. Projects started but not yet completed.
 - f. Known projects that do not require external authorisation.
 - g. Proposals in adopted plans.
 - h. Proposals in finalised draft plans formally published or submitted for final consultation, examination or adoption.
- 3.3.6 Plans under consideration may range from neighbouring authorities' planning documents down to sector-specific strategic plans on such topics as flood risk.

3.4 Consideration of Effects

Definition of Significant Effects

- 3.4.1 A critical part of the HRA screening process is determining whether or not the proposals are likely to have a significant effect on European sites and, therefore, if they will require an Appropriate Assessment. Judgements regarding significance should be made in relation to the qualifying interests for which the site is of European importance and also its conservation objectives. A useful definition of 'likely' significant effects is as follows:

'...likely means readily foreseeable not merely a fanciful possibility; significant means not trivial or inconsequential but an effect that is potentially relevant to the site's conservation objectives'.

- 3.4.2 In considering whether the plan is likely to have a significant effect on a European site, a precautionary approach must be adopted:
- 3.4.3 The plan should be considered 'likely' to have such an effect if the plan making authority is unable (on the basis of objective information) to exclude the possibility that the plan could have significant effects on any European site, either alone or in combination with other plans or projects.
- 3.4.4 An effect will be 'significant' in this context if it could undermine the site's conservation objectives. The assessment of that risk must be made in the light of factors such as the characteristics and specific environmental conditions of the European site in question.

Categorising Effects

- 3.4.5 All elements of the DPD have been screened for likely significant effects on European sites and categorised in accordance with the HRA Handbook.

⁴ DTA Publications Limited (June 2016) The Habitats Regulations Assessment Handbook.

3.4.6 As per the HRA Handbook, the effects associated with the DPD can be allocated into one of 12 categories according to the ways in which the option, policy or proposal could affect the European site. These are described in Table 1, below.

Table 1: Screening Assessment Categories

Category	Description
Category A:	General statements of policy/general aspirations. Policies which are no more than general statements of policy or general political aspirations should be screened out because they cannot have a significant effect on a site.
Category B:	Policies listing general criteria for testing the acceptability/sustainability of proposals. These general policies cannot have any effect on a European site and should be screened out.
Category C:	Proposal referred to but not proposed by the plan. Screen out any references to specific proposals for projects, such as those which are identified, for example, in higher policy frameworks such as the Wales Spatial Plan or National Policy Statements, relating perhaps to nationally significant infrastructure projects. These will be assessed by the Secretary of State or Welsh Ministers. A useful 'test' as to whether a project should be screened out in this step is to ask the question: 'Is the project provided for/proposed as part of another plan or programme and would it be likely to proceed under the other plan or programme irrespective of whether this subject plan is adopted with or without reference to it?' If the answer is 'yes' it will normally be appropriate to screen the project out in this step.
Category D:	Environmental protection/site safeguarding policies. These are policies, the obvious purpose of which is to protect the natural environment, including biodiversity, or to conserve or enhance the natural, built or historic environment, where enhancement measures will not be likely to have any adverse effect on a European Site. They can be screened out because the implementation of the policies is likely to protect rather than adversely affect European sites and not undermine their conservation objectives.
Category E:	Policies or proposals that steer change in such a way as to protect European sites from adverse effects. These types of policies or proposals will have the effect of steering change away from European sites whose qualifying features may be affected by the change and they can therefore be screened out.
Category F:	Policies or proposals that cannot lead to development or other change. Policies that do not themselves lead to development or other change, for example, because they relate to design or other qualitative criteria for development, such as materials for new development. They do not trigger any development or other changes that could affect a European site and can be screened out.
Category G:	Policies or proposals that could not have any conceivable adverse effect on a site. Policies which make provision for change but which could have no conceivable effect on a European site, because there is no causal connection or link between them and the qualifying features of any European site, and can therefore be screened out.

Category	Description
Category H:	Policies or proposals the (actual or theoretical) effects of which cannot undermine the conservation objectives (either alone or in combination with other aspects of this or other plans or projects). Policies or proposals which make provision for change but which could have no significant effect on a European site, either alone or in combination with other aspects of the same plan, or in combination with other plans or projects, can be screened out. These may include cases where there are some potential effects which (and theoretically even in combination) would plainly be insignificant and could not undermine the conservation objectives.
Category I:	Policies or proposals with a likely significant effect on a site alone. Policies or proposals which are likely to have a significant effect on a European site alone, should be screened in.
Category J:	Policies or proposals not likely to have a significant effect alone. These aspects of the plan would have some effect on a site, but the effect would not be likely to be a significant effect; so they must be checked for in-combination (cumulative) effects. They will then be re-categorised as either Category K (no significant effect in combination) or Category L (likely to have a significant effect in-combination), as explained below.
Categories K and L:	Policies or proposals not likely to have a significant effect either alone or in-combination (K), or likely to have a significant effect in-combination (L) after the in-combination test. Where an aspect of a plan could have some effect on the qualifying feature(s) of a European site, but the effects of that aspect of the plan alone would not be significant, the effects of that aspect of the plan will need to be checked in-combination firstly, with other effects of the same plan, and then with the effects of other plans and projects. i.e. policies or proposals which will have no likely significant effect alone or in-combination are classified as Category K. Policies or proposals which are likely to have a significant effect in-combination are classified as Category L. Category L policies or proposals will require further consideration in terms of potential in-combination effects. Firstly, this will be with regard to other aspects of the Plan itself, and subsequently with other separate plans or projects, for example neighbouring Local Plans.

3.5 Potential Impact Pathways

3.5.1 During the HRA screening stage, the likely nature, magnitude, frequency, timing, duration, location and spatial extent of changes resulting from implementation of the DPD will be assessed. As a part of this, mechanisms through which the DPD could impact upon European sites will be considered. Further details on the potential impact pathways are presented in Section 6.2.

3.5.2 The main impact pathways could be:

- Disturbance/ displacement.
- Atmospheric pollution.
- Water quality.
- Loss of habitat.

4 The European Sites

4.1 Approach to Identifying Sites

4.1.1 There are fourteen European sites located within 20 km of the AONB boundary which need to be taken into consideration in this assessment. European sites outside of the AONB may be affected by activities undertaken in Arnside and Silverdale if they are connected through an impact pathway, for example, hydrological links, or, if mobile species (i.e. birds) use land which is functionally linked to a European site, for example for foraging.

4.2 European Sites within and surrounding Arnside and Silverdale

4.2.1 Within the Arnside & Silverdale AONB, six European sites are present, which together cover 49% of the total AONB area. These sites are:

- Leighton Moss SPA
- Leighton Moss Ramsar site
- Morecambe Bay SAC
- Morecambe Bay and Duddon Estuary SPA
- Morecambe Bay Ramsar site
- Morecambe Bay Pavements SAC

4.2.2 Only the Leighton Moss sites lie entirely within the AONB. Both the Leighton Moss SPA and Ramsar site cover the same area, comprising almost 320ha of reedbed and wetland. Both designations are for the site's bird interest, though the latter has slightly wider criteria with additional species listed as qualifying features.

4.2.3 The extent of the three Morecambe Bay sites (including Morecambe Bay SAC/Ramsar site and Morecambe Bay and Duddon Estuary SPA) also overlap and all cover the entire intertidal area of the AONB. Land within the AONB represents a relatively small proportion of these sites, however, with each extending considerably beyond the boundaries of the AONB around the Bay. The SAC encompasses the entire Bay between Walney Island and Fleetwood as well as the Duddon Estuary. The SAC is designated for its important shallow sea, intertidal and coastal habitats and species. The Morecambe Bay SPA and Duddon Estuary SPA have recently been combined to form the Morecambe and Duddon Estuary SPA⁵. The Ramsar site covers only the intertidal sandflats and saltmarshes of Morecambe Bay. The SPA and Ramsar site are designated on account of their highly significant bird interest. Given that the three Morecambe Bay sites (including Morecambe Bay SAC/Ramsar site and Morecambe Bay and Duddon Estuary SPA) cover the same geographical area within the AONB they will be referred to as Morecambe Bay European sites from hereon (unless impacts are only relevant to one of the sites).

4.2.4 Morecambe Bay Pavements SAC comprises a number of whole or parts of Sites of Special Scientific Interest (SSSIs), eight of which are within the AONB and a further four are located outside. These areas are designated for important habitats and species associated with their limestone features.

4.2.5 Effects of the DPD on European sites located up to 20 km from the AONB boundary have also been considered. This is considered an appropriate distance to allow impacts on mobile species, such as birds, or sites which have a hydrological link to the AONB, to be considered.

4.2.6 Sites within 20 km of the AONB boundary include:

- Witherslack Mosses SAC (0.7 km from the AONB boundary).
- River Kent SAC (5.6 km from the AONB boundary).
- Roudsea Wood and Mosses SAC (8 km from the AONB boundary).

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492890/morecambe-duddon-summary.pdf accessed 11.7.17

- Subberthwaite Blawith and Torver Low Commons SAC (17.3ha from the AONB boundary).
- Duddon Mosses SAC (17.8 km from the AONB boundary).
- Calf Hill and Cragg Woods SAC (10.3 km from the AONB boundary).
- Yewbarrow Woods SAC (11.3 km from the AONB boundary).
- Bowland Fells SPA (10.2 km from the AONB boundary).

4.3 Conservation Objectives and Site Integrity

- 4.3.1 Under the Conservation of Habitats and Species Regulations 2010 the appropriate statutory nature conservation body (in this case Natural England) has a duty to communicate the conservation objectives for a European site to the relevant/competent authority responsible for that site. The information provided must also include advice on any operations which may cause deterioration of the features for which the site is designated.
- 4.3.2 The conservation objectives for a European site are intended to represent the aims of the Habitats and Birds Directives in relation to that site. To this end, habitats and species of European Community importance should be maintained or restored to 'favourable conservation status' (FCS), as defined in Article 1 of the Habitats Directive below:
- 4.3.3 The conservation status of a natural habitat will be taken as 'favourable' when:
- Its natural range and the area it covers within that range are stable or increasing;
 - The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future;
 - Conservation status of typical species is favourable as defined in Article 1(i).
 - The conservation status of a species will be taken as favourable when:
 - Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
 - The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future;
 - There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.
- 4.3.4 Guidance from the European Commission⁶ indicates that the Habitats Directive intends FCS to be applied at the level of an individual site, as well as to habitats and species across their European range. Therefore, in order to properly express the aims of the Habitats Directive for an individual site, the conservation objectives for a site are essentially to maintain (or restore) the habitats and species of the site at (or to) FCS.
- 4.3.5 Conservation Objectives⁷ for the European sites screened into the detailed assessment (comprising: Leighton Moss SPA/ Ramsar site, Morecambe Bay SAC, Morecambe Bay Ramsar site and Morecambe Bay Pavements SAC), are provided in Appendix A. Morecambe Bay and the Duddon Estuary SPA does not yet have conservation objectives, however, information pertaining to the qualifying features of this new European site has been obtained from the Natural England Departmental Brief for the SPA⁸ and this information is also included in Appendix A.

⁶ Managing Natura 2000 sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC. (European Commission 2000).

⁷ <http://www.naturalengland.org.uk/ourwork/conservation/designatedareas/sac/northwest.aspx>

⁸ Natural England (2016) Departmental Brief. Morecambe Bay and the Duddon Estuary SPA.

5 Initial Screening

5.1 Context

- 5.1.1 The AONB DPD contains a vision and strategy that sets out how the AONB will develop over the Plan period. It seeks to not only ensure that new homes, jobs and services required by communities are located in the most sustainable locations, but also that the framework for delivering the necessary infrastructure, facilities and other development will be provided to make this possible.

5.2 Screening Approach

- 5.2.1 The screening process has been split into two distinct stages, initial screening and detailed screening.
- 5.2.2 The initial screening stage has provided a high-level screening assessment to determine if the AONB DPD could possibly lead to significant adverse effects on European sites identified in Section 4. The purpose of this was to eliminate those policies and sites from the assessment which very clearly would not affect European sites in order to focus on those policies and sites where there was potential for effects or uncertainty about potential effects.
- 5.2.3 When identifying the elements of the DPD that could potentially affect European sites, it was important to focus upon those elements that would have any likelihood of impacting the sites. The definition of significance identified in Section 3.4 was very important for the detailed screening.
- 5.2.4 The DPD is intended to be read as a single document rather than a series of separate policies, and has been assessed as such. Proposals in one area of the DPD may mitigate potentially damaging activities promoted in another area and should be understood in the wider context of the Plan's aims and purposes.
- 5.2.5 The sections below outline the initial and detailed screening of the DPD.

5.3 Initial Screening of the DPD

- 5.3.1 An initial Screening exercise has been undertaken to determine if there are any European sites, or policies/allocation sites within the DPD which can be screened out of the detailed assessment. The initial Screening is shown in Table 2. The notations below were used to indicate if further detailed assessment screening is required:

- ✓ Further detailed screening is required to determine the nature of effects on the European site.
- ✗ No further screening is required as no effects are predicted on the European site.

European sites

- 5.3.2 European sites screened out in the initial screening comprised those European sites where there was no clear link, or conceivable impact pathway between the European sites and the policies/sites set out within the DPD.
- 5.3.3 Those European sites with the potential for LSE as a result of implementation of the DPD, or those European sites for which impacts were uncertain, were carried forward into the more detailed screening assessment.

Policies and allocation sites

- 5.3.4 Policies screened out in the initial screening were generally those that could not lead to 'direct development', or could have no impact pathway to any of the European sites identified. This included policies which directly seek to protect the local historic and natural environment, or those which support the implement other policies and therefore could not directly affect European sites. All of the policies screened out of the detailed assessment are not directly linked to allocation sites.

Table 2: Initial screening of the DPD

European Sites	Overall Strategy	Policy Issues	Proposed Development Allocations - Housing	Proposed Development Allocations – Mixed Use	Comments
Morecambe Bay and Duddon Estuary SPA	✘	✘	✓	✓	All of these sites are located wholly, or partly within the AONB area. Further assessment is required as to whether policies under the headings of Proposed Development Allocations - Housing and Proposed Development Allocations – Mixed Use would lead to any likely significant effects on these European sites. The current conditions and pressures/threats to these European sites (as set out within Appendix A) will be taken into consideration in the detailed screening assessment (refer to Section 6). There are no likely significant effects identified between these European sites and the Overall Strategy and the Policy Issues policies within the Plan. These policies have been scoped out, and will not be considered further in the detailed assessment (refer to Table 4 below).
Morecambe Bay Ramsar	✘	✘	✓	✓	
Morecambe Bay SAC	✘	✘	✓	✓	
Leighton Moss SPA	✘	✘	✓	✓	
Leighton Moss Ramsar	✘	✘	✓	✓	
Morecambe Bay Pavements SAC	✘	✘	✓	✓	
Witherslack Mosses SAC	✘	✘	✘	✘	Witherslack Mosses SAC, Roudsea Wood and Mosses SAC, Subberthwaite Blawith and Torver Low Commons SAC, Duddon Mosses SAC, Calf Hill and Cragg Woods SAC and Yewbarrow Woods SAC are all designated on account of their habitats, which comprise predominantly bog and woodland habitats, with none of them supporting mobile species as a qualifying feature. The AONB is outside of the catchment relevant to the European sites and on the opposite side of the river Kent estuary, so hydrological impacts are not anticipated. Air quality impacts are also not anticipated over such distances. Given the nature of the qualifying features, the lack of hydrological connectivity and the considerable distance of these sites from the AONB, there are no identified 'cause-effect' pathways between the impacts potentially arising from the DPD and the known environmental conditions at the European sites which could lead to an impact on the integrity of the European sites. As such, these sites have been screened out of this assessment.
Roudsea Wood and Mosses SAC	✘	✘	✘	✘	
Subberthwaite Blawith and Torver Low Commons SAC	✘	✘	✘	✘	
Duddon Mosses SAC	✘	✘	✘	✘	
Calf Hill and Cragg Woods SAC	✘	✘	✘	✘	
Yewbarrow Woods SAC	✘	✘	✘	✘	
River Kent SAC	✘	✘	✘	✘	The River Kent SAC is designated on account of its habitats, the presence of white-clawed crayfish (<i>Austropotamobius pallipes</i>), freshwater pearl mussel (<i>Margaritifera margaritifera</i>) and bullhead (<i>Cottus gobio</i>). The AONB is located downstream of the river Kent, the DPD would not affect the river Kent and hydrological impacts are therefore not anticipated. The species which form the qualifying features of the River Kent SAC are non-migratory and not particularly wide ranging. As such, there are no identified impact pathways between the impacts potentially arising from the DPD and the known environmental conditions at the European site which could lead to an impact on the integrity of the European site. The River Kent SAC is therefore screened out of this assessment.
Bowland Fells SPA	✘	✘	✘	✘	Bowland Fells SPA is designated on account of its breeding hen harrier (<i>Circus cyaneus</i>), merlin (<i>Falco columbarius</i>) and lesser black-backed gull (<i>Larus fuscus</i>). Hen harriers hunt over rough grassland and marshy grassland habitats as well as moorland, up to 7 km from the nest site ⁹ . Merlin typically stay within 1 km of the nest location. Given the distance of the European site from the AONB, it is unlikely that there would be any impacts on these species whilst breeding within the SPA as a result of the DPD. Although lesser black-backed gull forage more widely, the birds associated with Bowland Fells SPA are unlikely to range a sufficient distance from the European site during the breeding season for there to be any significant impacts on them as a result of the proposals within the DPD. As such, there are no identified impact pathways between the impacts potentially arising from the DPD and the known environmental conditions at the European site which could lead to an impact on the integrity of the European site. Bowland Fells SPA is therefore screened out of this assessment.

⁹ Raptors: a field guide to survey and monitoring (Jon Harden, Humphrey Crick, Chris Wernham, Helen Rilen, Brian Etheridge, Des Thompson, Scottish Natural Heritage, 2006)

Initial Screening of European Sites

5.3.5 Table 2, above, provides the initial Screening of the European sites. Fourteen European sites have been identified within, and up to 20km from the AONB boundary. Of these, eight can be ruled out completely on the basis that there are no potential impact pathways which are likely to give rise to likely significant effects on these sites:

- Witherslack Mosses SAC (0.7 km from the AONB boundary).
- River Kent SAC (5.6 km from the AONB boundary).
- Roudsea Wood and Mosses SAC (8 km from the AONB boundary).
- Subberthwaite Blawith and Torver Low Commons SAC (17.3ha from the AONB boundary).
- Duddon Mosses SAC (17.8 km from the AONB boundary).
- Calf Hill and Cragg Woods SAC (10.3 km from the AONB boundary).
- Yewbarrow Woods SAC (11.3 km from the AONB boundary).
- Bowland Fells SPA (10.2 km from the AONB boundary).

5.3.6 For the remaining seven European sites, likely significant effects cannot be ruled out at this initial screening stage. The sites that will be taken through into the detailed screening assessment comprise the following:

- Leighton Moss SPA
- Leighton Moss Ramsar
- Morecambe Bay SAC
- Morecambe Bay and Duddon Estuary SPA
- Morecambe Bay Ramsar
- Morecambe Bay Pavements SAC

Initial Screening of Policies within the DPD

5.3.7 In addition to Screening out eight of the European sites, Table 3 identifies the policies under each of the policy headings which have been screened in or out of the detailed assessment.

Table 3 Initial Screening of the Plan

	Overall Strategy	Policy Issues	Proposed Development Allocations - Housing	Proposed Development Allocations – Mixed Use
Policies Screened In	-	-	AS18, AS19, AS20, AS21, AS22, AS23, AS24, AS25	AS26, AS27, AS28
Policies Screened out	AS01, AS02, AS03	AS04, AS05, AS06, AS07, AS08, AS09, AS10, AS11, AS12, AS13, AS14, AS15	AS16, AS17	-

5.3.8 All of the policies contained within two of the policy headings in the plan can be screened out completely from further assessment, on the basis that no identifiable impact pathway exists linking the

policies with the European sites and/or because there will be no foreseeable adverse impact on European sites through Policy implementation.

5.3.9 Table 4 provides a justification for the policies screened out of further assessment. All of the policies (with the exception of AS16 and AS17) within the policy heading 'Proposed Development Allocations – Housing' and 'Proposed Development Allocations – Mixed Use' have been screened in to the detailed screening assessment due to their potential for impacts upon European sites as a result of the development proposals.

Table 4 Policies screened out of further assessment

Policy	Justification	Assessment Category
Overall Strategy AS01 Development Strategy AS02 Landscape AS03 General Requirements	The three policies included within the overall strategy set out the strategy for the AONB and how the approach to development must ensure the primary purpose of conserving and enhancing the natural beauty of the AONB are at the heart of planning. None of the policies will lead directly to change and cannot have a significant effect on a European site	A
Policy Issues AS04 Housing AS09 Design AS11 Infrastructure for New Development AS15 Advertising and Signage	These policies all relate to design or outline qualitative criteria for development and do not in themselves lead to change that could adversely affect European sites.	F
Policy Issues AS06 Public Open Space and Recreation AS10 Economic Development and Community Facilities AS14 Energy and Communications	Whilst these policies provide for change which could have some effect upon the European sites, the policies include clauses which ensure that biodiversity assets or the Special Qualities of the AONB (including internationally important species) are not compromised as a result of the development, thereby steering change away from European sites whose qualifying features may be affected.	E
Policy Issues AS05 Natural Environment	Policy AS05 provides for the protection and enhancement of the AONB's biodiversity. Under this policy, developments that would be likely to compromise the extent, value or integrity of a European Site	D

Policy	Justification	Assessment Category
<p>AS07 Key Settlement Landscapes</p> <p>AS08 Historic Environment</p> <p>AS13 Water Quality, Sewerage and Sustainable Drainage</p>	<p>would not be permitted, therefore implementation of this policy will protect the natural environment.</p> <p>Policy AS07 provides for the protection of key settlement landscapes which are private areas of particular importance to the character of settlements within the AONB. Any development proposals that could compromise their integrity would not be permitted.</p> <p>Policy AS08 provides for protection of historic environments, implementation of which would not have any adverse effects on a European Site.</p> <p>Policy AS13 provides for the protection of existing sewerage infrastructure and ensure new developments reflect the special needs of the AONB in relation to likely impacts and potential benefits for water quality, sewerage infrastructure and sustainable drainage. Implementation of this policy will act to protect nearby European sites from increased water pollution.</p>	
<p>Policy Issues</p> <p>AS12 Camping, Caravan and Tourist Accommodation</p>	<p>Whilst policy AS12 does allow for change, the scale of any developments under the policy are small and would be associated with existing sites, either allowing for small-scale extension or conversion to alternative, lower impact visitor accommodation. Impacts from such development would be insignificant and would not undermine the conservation objectives of European sites.</p>	<p>H</p>
<p>Proposed Development Allocations – Housing</p> <p>AS16 Proposed Housing Allocations</p> <p>AS17 Proposed Mixed-Use Allocations</p>	<p>These policies simply list the allocation sites, and as such, neither of these policies will lead directly to change and cannot have a significant effect on a European site.</p>	<p>A</p>

6 Detailed Screening

6.1 Overview

- 6.1.1 The detailed screening of policies in relation to the European sites is presented in this section. The European sites carried through into the detailed screening assessment comprise: Leighton Moss SPA/Ramsar, Morecambe Bay SAC, Morecambe Bay and Duddon Estuary SPA, Morecambe Bay Ramsar, and Morecambe Bay Pavements SAC.
- 6.1.2 The detailed screening is based on the findings of the initial screening exercise and (as outlined within Section 2), also takes into consideration consultation with NE.

6.2 Potential Impact Pathways

- 6.2.1 The following potential impacts have been considered in the detailed assessment:
- Disturbance/ displacement.
 - Atmospheric pollution.
 - Water quality.
 - Loss of habitat.
- 6.2.2 Each of the potential impact pathways are described in detail below and includes an explanation as to why each of the potential impact pathways has been screened in or out of the detailed assessment of the AONB DPD.

Disturbance/ displacement

Disturbance/ displacement to species within European sites or land that could be functionally-linked to the European sites

- 6.2.3 New development has the potential to impact upon European sites as a result of causing disturbance to qualifying species either within the European site itself or through disturbance to land outside the European site but functionally-linked to it. Disturbance/displacement of species can be associated with the construction phase, operational phase or both.
- 6.2.4 Functionally-linked land is considered to be any land outside of the European site, which is regularly used by birds in significant numbers, that are qualifying interest features of that European site. In relation to this HRA Screening Report, this includes land (comprising farmland, or other wetland habitat) used by qualifying bird species associated with Leighton Moss SPA/Ramsar, Morecambe Bay and Duddon Estuary SPA, and Morecambe Bay Ramsar during the winter and on passage for foraging or roosting, such as pink-footed geese.
- 6.2.5 The Site Improvement Plans for Leighton Moss and Morecambe Bay do not include loss of functionally-linked land as a potential threat on the European sites. However, new development within the AONB could be located within, or adjacent to land which could potentially constitute functionally-linked land. Development could also be located in close proximity to these European sites. This impact pathway has therefore been **screened in** to the detailed screening.

Disturbance/displacement to species as a result of construction activities/ operational stage

- 6.2.6 There is the potential to disturb and/or displace qualifying species associated with European sites, in particular birds, during the construction and operational phases of new developments in proximity to the site's boundary. Disturbance/displacement could occur as a result of the following:
- Noise, visual vibration and lighting disturbance during both the construction and operational phase of new developments. This could result in potential loss of fitness and the consequential health or mortality effects on birds and their prey species.
 - New development could be located in or adjacent to land which could potentially constitute functionally-linked land. These developments could also lead to significant effects, in terms of

noise, visual vibration and lighting disturbance during both the construction and operational phase of new developments.

- 6.2.7 The Site Improvement Plan for Leighton Moss does not include effects associated with disturbance/displacement (as a result of construction activities/ operational stage) as a potential threat on the European sites. The Morecambe Bay Site Improvement Plan does make reference to changes in species distribution, however, it is not known whether this is attributed to human factors, or a reflection of national trends:

'There have been declines in bird population numbers for several species notified within Morecambe Bay and Duddon Estuary SPA's. It is unclear if it is a local or national trend in declines, if it is attributed to an anthropogenic problem or if the birds have relocated elsewhere and national populations are maintained.'

- 6.2.8 The Site Improvement Plan for Morecambe Bay does make specific reference to recreational pressure, which is discussed in the paragraphs below.
- 6.2.9 Given that there are a number of allocation sites which could lead to disturbance/displacement to birds associated with Leighton Moss SPA/Ramsar, Morecambe Bay and Duddon Estuary SPA, and Morecambe Bay Ramsar, this impact pathway will be **screened in** to the detailed screening assessment within Section 6.4 below.

Disturbance/displacement to habitats and species through increased recreational activity, during operational stage

- 6.2.10 There is the potential to disturb and/or displace qualifying species associated with European sites, in particular birds, during the construction and operational phases of new developments in proximity to the site's boundary. Recreational disturbance/displacement could occur as a result of the following:

- Increase in recreational disturbance/ displacement to birds associated with the Morecambe Bay and Duddon Estuaries SPA/ Morecambe Bay Ramsar site as a result of an increase in visitors to the coast.
- Increase in recreational pressure as a result of an increase in visitors to the coast leading to degradation of habitats associated with Morecambe Bay Pavements SAC, and Morecambe Bay SAC.
- Increase in visitors to Leighton Moss SPA/Ramsar site leading to disturbance/ displacement of birds within the European site.

- 6.2.11 The Site Improvement Plan for Leighton Moss does not include recreational pressure as a potential pressure/threat. In addition, Leighton Moss is managed by the Royal Society for the Protection of Birds (RSPB) and visitor numbers to this site are closely monitored and managed to ensure the breeding and wintering birds present within the site are protected. The Ramsar site citation states that:

'Visitor usage and visitor numbers are monitored on a daily basis at this extremely popular and well visited RSPB bird reserve.'

- 6.2.12 Given the highly managed nature of Leighton Moss, potential impacts associated with recreational pressure at this site are considered unlikely. This potential impact associated with Leighton Moss SPA/Ramsar site has been **screened out** of the detailed assessment

- 6.2.13 The Site Improvement Plan for Morecambe Bay identified public access/disturbance as a potential pressure/threat to the site. The plan states that:

'There is recreational disturbance to all features from various activities from individuals (e.g. dog walkers) to organised groups occurring throughout Morecambe Bay. In some cases, (e.g. wind and kite surfing) activities are increasing. Previous attempts at developing 'codes of conduct', and good practice have not been successful. New access points are being created or old tracks widened etc., and there are long term/historical issues.'

The scale of recreational disturbance is currently unknown but considered to be both localised and widespread. Activities require regulation to ensure birds are not disturbed and habitats are not damaged.'

6.2.14 The Site Improvement Plan for Morecambe Bay Pavements SAC identified public access/disturbance as a potential pressure/threat to the site. The plan states that:

'Motorbike and off-road bikes are illegally accessing land and damaging small areas. This is an increasing issue. There are also problems with pedestrian trampling along desire lines and dogs worrying sheep.'

6.2.15 Recreational pressure has therefore been **screened in** to the detailed screening assessment within Section 6.4 below, but only in relation to potential increase in visitor numbers to Morecambe Bay SAC, Morecambe Bay and Duddon Estuary SPA, Morecambe Bay Ramsar, and Morecambe Bay Pavements SAC. Potential impacts associated with recreational pressure on Leighton Moss SPA/Ramsar site have been screened out of the detailed assessment.

Atmospheric pollution

6.2.16 Changes in air quality from increased traffic and development could have impacts on European sites.

6.2.17 Changes in air quality due to increased nitrogen deposition could occur as a result of the following:

- Construction activities in the vicinity of European sites.
- Increased population and road traffic may increase nitrogen deposition on sensitive habitats.

6.2.18 The Site Improvement Plan for Leighton Moss does not include reference to air pollution as a current pressure/threat to the European site.

6.2.19 The Site Improvement Plan for Morecambe Bay identifies the risk of atmospheric nitrogen deposition as a potential threat to the European sites. The plan states that:

'Nitrogen deposition exceeds the site-relevant critical load for ecosystem protection and hence there is a risk of harmful effects, but the sensitive features are currently considered to be in favourable condition on the site.'

6.2.20 The Site Improvement Plan for Morecambe Bay Pavements SAC also identifies the risk of atmospheric nitrogen deposition as a potential threat to the European sites. The plan states that:

'Nitrogen deposition exceeds site-relevant critical loads for all features except fen, lake (n/a) and the Vertigo snail (unknown). Lichens in woodland are poorly represented which could be due to this factor.'

6.2.21 In relation to construction activities near to the Leighton Moss and Morecambe Bay, current air quality guidance suggests that any construction sites or routes used by construction vehicles within 50 m of a European site¹⁰; and any European site within 200 m of the main access roads used by HGVs accessing the site¹¹ could lead to significant effects on European sites during the construction phases of new development.

6.2.22 There are a number of allocation sites within 200 m of the Morecambe Bay European site (comprising Station House and Yard, Site Ref: A25/A26/A27 (1 ha); Land at Whinney Fold, Silverdale, Site Ref: S56 (0.31 ha); Old Station Yard, Sandside, Site Ref: B35 (0.31 ha); Land south of Quarry Lane, Sandside, Site Ref: B38 (0.26ha); Travis Perkins, Sandside, Site Ref: B81 (2.28ha); The Ship Inn, Park Road, Sandside (part), Site Ref: B125 (0.1 ha); and Land East of Quarry Road 1 and 2, Sandside, Site Ref: B116 (1.15 ha) and B117 (0.66 ha)). However, all but two (S56 and B117) of these sites are redevelopment of existing industrial land. S56 and B117 comprise development of small greenfield sites, but both are within an urban setting (refer to site description in Table 6). In addition, all of the allocations are very small-scale (with the largest being 2.28 ha which comprises the redevelopment of a builder's merchants), consequently the construction phase of these allocations would be short-term in duration. Therefore, despite their proximity to Morecambe Bay European sites, the potential for any slight increase in air pollution as a result of the construction phase would be negligible, and not

¹⁰ Institute of Air Quality Management (IAQM), Guidance on the assessment of dust from demolition and construction (2014)

¹¹ Design Manual for Roads and Bridges, Volume 11, Section 3, Part 1, HA 207/07 – Air Quality, Highways Agency, 2007.

significant. The potential impacts associated with construction phase air pollution can be **screened out** of the detailed assessment.

6.2.23 In relation to operational phase air quality impacts associated with new development within the AONB, no significant effects as envisaged. The entire housing allocation is less than 100 houses, with the majority of the allocations more than 1 km from a European site, therefore the potential for any slight increase in air pollution to have a significant effect on a European site is considered negligible. Potential impacts associated with operational phase air pollution can be **screened out** of the detailed assessment

6.2.24 This potential impact has been **screened out** of the detailed screening assessment.

Loss of supporting habitat

6.2.25 Construction work could result in the direct destruction of habitats, leading to a net loss in the extent of habitat area. Although several European sites are located within the AONB area, there are no plans to allocate land for development either within the European sites or on land that is considered to be functionally-linked to them; therefore, there would be no direct habitat loss as a result of implementation of the Plan.

6.2.26 This potential impact pathway has been **screened out** of the detailed screening assessment.

Water quality

6.2.27 Changes in water quality as a result of new development could have impacts on European sites. For example, increased risk of potential pollution incidents, and potential increases in suspended sediments resulting in ecological effects, such as the direct loss of habitats caused by re-deposition of suspended sediment, and the consequential health or mortality effects on prey species, particularly invertebrates associated with the intertidal mudflats of the Morecambe Bay SAC, SPA and Ramsar site.

6.2.28 There are no hydrological links to Morecambe Bay Pavements, as such this site is **screened out** of the detailed screening assessment.

6.2.29 Watercourses within the AONB are hydrologically linked to Leighton Moss and Morecambe Bay and therefore, there is the potential for an effect upon these European sites to occur as a result of development within the AONB.

6.2.30 The Site Improvement Plan for Leighton Moss included water pollution as a pressure/ threat to the European site; however, this is largely in relation to point source pollution from septic tanks and diffuse pollution from farming activities.

6.2.31 The Site Improvement Plan for Morecambe Bay SAC/ Ramsar site and Morecambe and Duddon SPA also identified water pollution as a threat in relation to diffuse pollution and/or uncontrolled release of pollutants from terrestrial sources that could alter or damage the habitats and species found within the estuary.

6.2.32 Due to the hydrological links between the watercourses within the AONB and Morecambe Bay and Leighton Moss, this potential impact pathway has been **screened in** to the detailed screening assessment.

6.3 Potential impacts considered in the detailed screening

6.3.1 Based on the information presented in Section 6.2, the potential impact pathways carried through into the detailed screening assessment of the AONB DPD comprise the following:

- Disturbance/ Displacement (including to functionally-linked land, construction/operational and recreational pressure); and
- Water quality.

6.4 Embedded Avoidance

6.4.1 Section 4.2 of the AONB DPD sets out in detail the policies which have been put in place to protect the Natural Environment. Policy AS05 states that:

'Development proposals will not be permitted that would be likely to compromise the extent, value or integrity of:

l) any site or habitat protected for its biodiversity or geodiversity value at an international, national or local level.'

6.4.2 The policy goes on to specifically refer to Internationally European sites, and states that:

6.4.3 *'The AONB contains three types of internationally designated sites: Ramsar sites; Special Protection Areas (SPAs); and, Special Areas of Conservation (SACs).*

6.4.4 *These sites are protected by The Conservation (Natural Habitats, &c.) Regulations 1994, as subsequently amended. The level of protection is extremely high. Protection is required from damage to the integrity of a site (defined as the coherence of its ecological structure and function across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of species for which it was classified).*

6.4.5 *In assessing development likely to affect the integrity of internationally protected sites, the Councils will follow the procedure set out in the Habitats Regulations. Essentially, this involves assessing likely impacts and considering the alternative solutions. The applicant will be expected to provide this information before the proposal can be considered. The applicant must demonstrate that a proposal would not have adverse effects. If this cannot be proven, planning permission will only be given in exceptional circumstances of overriding public interest. Natural England will advise the Councils in these circumstances.'*

6.4.6 Under policy AS05 development that is likely to damage or destroy habitats or harm species of international importance would not be permitted.

6.4.7 In addition, the following policies within the wider adopted Plans provide a further safety net for the protection of the Natural Environment.

Table 5 Policies links

Plan	Policies
AONB Management Plan Objectives	1, 2, 3, 4, 5, 6, 8, 10, 11, 12, 14, 19
Key Current Local Plan Links	Lancaster: SC1, SC8, E1, DM25, DM26, DM27, DM28, DM29, MR1 and various 'saved' Local Plan policies South Lakeland: CS1.1, CS8.1, CS8.2, CS8.4, CS8.5, CS9.2, LA1.10 and various 'saved' Local Plan policies
Key Emerging Local Plan Links	Refer to Section 6 of the AONB DPD
NPPF paragraphs	14, 109, 115
Other documents, guidance or evidence	AONB Management Plan (inc. Appendix 2), AONB Special Qualities Report, AONB Landscape and Seascape Character Assessment, Natural Environment White Paper, Biodiversity 2020: A strategy for England's wildlife and ecosystem services, Making Space for Nature, Morecambe Bay NIA and LNP, Think Big: Ecological recovery in Protected Landscapes, Section 41 of the NERC Act.

- 6.4.8 All planning applications within the AONB will be required to adhere to the policy within the AONB DPD, as well as those in the wider adopted Plans. All of these policies provide assurance that new developments are adequately assessed to ensure that there would be no likely significant effects on European sites within or adjacent to the AONB area.

6.5 Ecological Information

- 6.5.1 The following data sources have been considered during the detailed screening exercise:

- NE pink-footed goose distribution squares, and functionally-linked land Impact Risk Zone (IRZ) buffer.
- Morecambe Bay Wader Roost Study.
- Aerial photography and digital mapping.

- 6.5.2 Each of these data sources is described in further detail below.

NE pink-footed goose distribution squares and functionally-linked land IRZ buffer (GIS Data)¹²

- 6.5.3 A five-point scale has been devised by NE to reflect the relative abundance of geese recorded in a 1km square, called the 'Goose Index'. The 'Goose Index' covers a large proportion of the north-west around Morecambe Bay, including Arnside and Silverdale. Each square, where geese have been recorded feeding, has been weighted according to how many times they have been recorded, as well as how many birds were counted.

- 6.5.4 NE have used the Goose Index squares to produce an Impact Risk Zone (IRZ) buffer. The agricultural land within the buffer is considered likely to form functionally-linked land to adjacent SPAs/Ramsar sites (including Leighton Moss SPA/Ramsar site and the Morecambe Bay and Duddon Estuary SPA).

Morecambe Bay Wader Roost Study¹³

- 6.5.5 The Morecambe Bay Wader Roost Study identifies and describes important wader roost sites around Morecambe Bay. The Study has been reviewed in relation to the locations of the allocation sites. There is only one roost sites within 1 km of the allocation sites, namely Arnside wader roost, located within an area of saltmarsh to the north of Arnside.

Aerial photography and digital mapping

- 6.5.6 In order to determine the potential suitability of the habitats within and adjacent to the allocations for birds associated with the European sites, aerial photography was reviewed using Google Earth. This allowed an assessment of the habitat type, the presence of boundary features such as hedgerows which could restrict sightlines, presence of adjacent development all of which could reduce the likelihood of use on an area by qualifying bird species and as such whether the allocations would be considered to be on functionally-linked. Reviewing such images also allowed for a judgement to be made regarding the likely locations of suitable functionally-linked land in relation to the allocations.

- 6.5.7 The MAGIC website was also used to check for the presence of hydrological links from the allocation sites to the European sites.

Interpretation of ecological information

- 6.5.8 The detailed screening is presented in Table 6. The colour coded table format was agreed in consultation with NE in relation to other HRA Reports of Local Plans within the Region. The table comprises: details of the European sites potentially affected; the type of development (including a site description); details of the data review including whether the site is within a pink-footed goose square, the location of wader roosts, a detailed description of whether the site constitutes functionally-linked

¹² Pink-footed geese, Morecambe Bay. A draft map showing the distribution of feeding pink-footed geese produced by Natural England (2015).

¹³ Marsh, Roberts, (201) Morecambe Bay Wader Roost Study Heritage Lottery funding.

land and the presence of hydrological links; the Assessment Category (based on Table 3); potential impacts; and, finally, whether the site is likely to have a significant effect either alone or in-combination.

- 6.5.9 To aid interpretation, the data review columns are colour-coded amber or green. Where the column is green, detailed interpretation of the data has concluded no potential impact has been identified (and a justification for this provided, where appropriate). Where the column is amber, a potential impact has been highlighted, and the potential impact associated with that information is presented in the 'potential impacts' column.
- 6.5.10 When interpreting the ecological information, the following definitions were used the definition of FLL used in this assessment is: 'land which is regularly used by significant numbers of birds'. Where SPA species are using a site, but there is not a significant number of birds regularly using that site, it has been defined as follows [as agreed with NE during consultation in relation to HRA work for adjacent Local Councils, February 2017]:
- 'the site could be used by SPA birds but not regularly and not in significant numbers so it is not considered to be FLL'*
- 6.5.11 However, the final determination of whether a site is considered to be FLL also takes into consideration other factors, such as habitat type, proximity to existing development, and distance from the European site (as described above).

Table 6 Detailed Screening of AONB DPD policies and associated allocation sites

Allocation details		European sites potentially affected (km)	Site Description	Pink-footed Goose Square from IRZ layer?	Morecambe Bay Wader Roost within 1 km	Functionally Linked Land (FLL)	Hydro link?	Assessment Category	Potential impacts	Conclusion
Site name and reference number	Description and history									
Land off Queens Drive, Arnside Policy: AS18 Site Ref: A6	Best use: housing. Dwellings potential: 8 Size: 0.10ha	Morecambe Bay Pavements SAC 1.8 Morecambe Bay European Sites 0.5 Leighton Moss SPA and Ramsar site 3.8	Redevelopment within the urban setting of Arnside. Site is located at the end of Queens Drive, to the west of Silverdale Road. Site surrounded on all sides by residential dwellings with scrub/ curtilage.	No	Arnside roost approximately 1 km to the west, beyond existing residential areas and the railway line.	The site comprises urban redevelopment and does not constitute FLL. The nearest area that could be FLL is Arnside Moss, over 650 m to the east.	No	J	The site comprises a small area currently comprising garages within an existing residential area. Given that the site is only allocated to provide 8 dwellings within an already urban setting, 500 m from the coast and 650 m to the nearest potentially FLL, effects from development of this site would not be significant alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Land on Hollins Lane, Arnside Policy: AS19 Site Ref: A8/A9	Best Use: Housing Dwellings potential: 8 Size: 0.12ha	Morecambe Bay Pavements SAC 1.4 Morecambe Bay European Sites 0.7 Leighton Moss SPA and Ramsar site 3.5	Part of a small improved field in the urban setting of Arnside. The allocation is located to the west of Hollins Lane and the east of Silverdale Road. The site is surrounded by residential dwellings and associated curtilage.	No	Arnside roost approximately 1 km to the north-west, beyond existing residential areas and the railway line.	Given the site's location and habitat type it is not considered to constitute FLL. The nearest area that could constitute FLL is Arnside Moss, over 550 m to the east.	No	J	The allocation comprises a small part of a sheep-grazed, improved grassland field. Given that the site is only allocated to provide 8 dwellings within an already urban setting, 750 m from the coast and 550 m to the nearest potentially FLL, effects from development of this site would not be significant alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Land at Briary Bank, Arnside Policy: AS20 Site Ref: A11	Best use: Housing on part of the site Dwellings potential: 14 Size: 0.29ha	Morecambe Bay Pavements SAC 1.8 Morecambe Bay European Sites 0.6 Leighton Moss SPA and Ramsar site 3.7	A small, rough grassland site. Briary Bank Road is located to the south, a farm/ large dwelling and associated buildings to the north, residential dwellings and a track to the west and a large semi-improved pastoral field to the east, separated from the site by a large hedgerow.	No	Arnside roost approximately 800 m to the north-west, beyond existing residential areas and the railway line.	Given the site's small size, location and habitat type, it is not considered to constitute FLL. The nearest area that could be FLL is Arnside Moss, over 400 m to the east.	No	J	The allocation comprises a small area of rough grassland on a former orchard site. Given that the site is only allocated to provide 14 dwellings within an already urban setting, 600 m from the coast and 350 m to the nearest potentially FLL, effects from development of this site would not be significant alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Station House and Yard, Arnside Policy: AS26 Site Ref: A25, A26, A27	Best use: Car parking, employment, community/ visitor facilities and rail access. Possible residential or live-work Size: 1.03ha	Morecambe Bay Pavements SAC 1.7 Morecambe Bay European Sites: adjacent Leighton Moss SPA and Ramsar site 3.9	The site is located within Arnside and is a redevelopment of an existing site currently used as residential, business, car parking and access to the adjoining railway land.	No	Arnside roost approximately 250 m to the west. The site is partially screened from the area of saltmarsh by woodland.	The allocation comprises regeneration of land around the station including areas of hardstanding, gardens/amenity grassland and trees. The habitats within the allocation are not considered to constitute FLL. The closest FLL is likely to be Arnside Moss 50 m to the south west of the allocation.	Yes	J	The site is a redevelopment allocation and as such there will be no direct loss of habitat either within the European site or of land functionally-linked to it. Given the location of the site adjacent to the estuary and approximately 250m from a regularly used high tide roost at Arnside, there is the potential for disturbance to birds during the construction period. However, the site is already utilised for car parking and is adjacent to a railway, therefore background noise levels would not be expected to be above those already experienced, and therefore any potential noise impacts would be short term during construction only. Therefore, due to the small size of the site and its location (near existing sources of disturbance), the potential effects of disturbance are considered to be negligible.	No likely significant effect alone (refer to Section 8 for in combination assessment)

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Allocation details		European sites potentially affected (km)	Site Description	Pink-footed Goose Square from IRZ layer?	Morecambe Bay Wader Roost within 1 km	Functionally Linked Land (FLL)	Hydro link?	Assessment Category	Potential impacts	Conclusion
Site name and reference number	Description and history									
									<p>The policy associated with the allocation provides for the requirement of appropriate ecological surveys to assess the potential impacts prior to planning permission being granted. This will ensure that the final development proposals do not introduce significant adverse effects upon any European sites without incorporating appropriate mitigation/ compensation measures if required.</p> <p>The potential in combination effects are assessed in Section 8.</p>	
Land at Whinney Fold, Silverdale Policy: AS23 Site Ref: S56	Best use: Housing on part of the site Dwelling potential: 6 Size: 0.30ha	Morecambe Bay Pavements SAC 1.6 Morecambe Bay European Sites 0.1 Leighton Moss SPA and Ramsar site 1.6	The site is small and located to the south of the Silverdale. The site is currently agricultural pasture, with further fields to the west, east and south. To the north are residential dwellings of Silverdale. The site is surrounded by a large hedgerow.	No	No	<p>The allocation comprises a small field surrounded by hedgerows on the edge of Silverdale. Given the location and small size, the allocation is not considered to constitute FLL.</p> <p>The closest FLL is likely to be the open fields beyond 50 m to the south west of the allocation where sightlines improve and fields are much larger.</p>	No	J	<p>The proposed development site is located on the edge of Silverdale, with existing development to the north, north west and east, an enclosed field and further development to the south and open farmland to the west and south west. Morecambe Bay is 150 m to the west.</p> <p>Given the small scale of any potential development at this site, the potential for an adverse effect on the European sites or adjacent FLL as a result of 6 additional homes in this location negligible and would not be significant alone.</p> <p>The potential in combination effects are assessed in Section 8.</p>	<p>No likely significant effect alone</p> <p>(refer to Section 8 for in combination assessment)</p>
Railway Goods Yard, Silverdale Policy: AS28 Site Ref: S70	Best use: Employment and car parking Size: 0.36ha If developed for car park, possible scope for up to 20 spaces, which could benefit visitors/ tourists, but mostly rail users.	Morecambe Bay Pavements SAC 0.4 Morecambe Bay European Sites 1.7 Leighton Moss SPA and Ramsar site 0.3	The site is located outside Silverdale and would constitute the redevelopment of an existing but disused railway goods yard. With Redbridge Road to the west, the railway to the east and scrub and woodland habitat to the north and south.	No	No	<p>This site comprises existing development and woodland/ scrub habitats (which are unsuitable for supporting SPA and Ramsar site species), therefore the allocation is not considered to constitute FLL.</p> <p>A golf course surrounds the allocation and there are no habitats that could constitute FLL within 500 m of the site.</p>	Yes	H	<p>The development of an additional 20 car parking spaces at Silverdale Station, almost 2 km from Morecambe Bay, is considered unlikely to lead to any significant increase in recreational pressure due to increased visitors to the European site.</p> <p>The allocation is 300 m from Leighton Moss SPA and there are hydrological links in the form of Myers Dike which is adjacent to the site. As such, there is the potential for contamination and consequent ecological effects on qualifying features. However, the policy for the allocation requires proposals to include measures to: <i>'protect nearby wildlife designations from impacts via fluvial routes; to show that additional flood or surface water risks would not occur; and ensure appropriate controls on drainage are incorporated.'</i> Therefore, any planning applications would be required to ensure appropriate pollution prevention measures are incorporated to prevent any adverse effects. Given these requirements within the allocation policy, it can be concluded that adverse effects upon Leighton Moss SPA and Ramsar site would not occur.</p> <p>Given that this is a small-scale redevelopment, no other potential impacts as a result of the proposed development at this site are anticipated either alone or in combination.</p>	<p>No likely significant effect alone or in combination</p>
Old Station Yard, Sandside Policy: AS27	Best use: Business or mixed use Size: 0.31ha	Morecambe Bay Pavements SAC 1	The site is located within Sandside and is currently used for the display, repair and sale of second hand cars. To the north of the site is the B5282 with the estuary	No	No	This site comprises existing development and hardstanding and therefore would not constitute FLL.	No- but Morecambe Bay European	J	<p>Whilst this site is primarily identified for business, there is the potential for some residential units to be included as part of the mixed use of the site. However, given its small size, any increase in recreational pressure on the adjacent European site,</p>	<p>No likely significant effect alone</p>

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Allocation details		European sites potentially affected (km)	Site Description	Pink-footed Goose Square from IRZ layer?	Morecambe Bay Wader Roost within 1 km	Functionally Linked Land (FLL)	Hydro link?	Assessment Category	Potential impacts	Conclusion
Site name and reference number	Description and history									
Site Ref: B35		Morecambe Bay European Sites 0.025 Leighton Moss SPA and Ramsar site 5.1	beyond and to the south a quarry access road, with existing development to the east and west.			The site is within 30 m of Morecambe Bay, as such the European site itself is of greater relevance than the closest FLL (which is more distant).	site within 100 m		as a result of a small number of residential dwellings would not be of sufficient scale to lead to a significant effect alone. There are no direct hydrological links from the site to the estuary, however, given the close proximity of the allocation to the European site, the allocation policy includes requirements for addressing potential water quality issues prior to planning permission being granted, therefore no effects upon the adjacent European sites would be expected. The allocation policy also provides for the requirement of appropriate ecological surveys to identify any potential impacts and provide mitigation measures where required prior to permission being granted. The potential in combination effects are assessed in Section 8.	(refer to Section 8 for in combination assessment)
Land south of Quarry Lane, Sandside Policy: AS27 Site Ref: B38	Best use: Business Size: 0.26ha	Morecambe Bay Pavements SAC 1 Morecambe Bay European Sites 0.07 Leighton Moss SPA and Ramsar site 3.6	The site is located within Sandside and comprises a disused quarry warehouse, hardstanding and wooded strip of land with existing development and roads to the north, and a quarry to the south.	No	No	This site does not support habitats suitable for SPA and Ramsar site species and therefore would not constitute FLL. The site is within 70 m of Morecambe Bay, as such the European site itself is of greater relevance than the closest FLL (which is more distant).	No- but Morecambe Bay European site within 100m	J	The proposed development site is separated from Morecambe Bay by two roads and existing development, disturbance to birds within the European site is therefore considered unlikely. There are no hydrological links between the proposed development site and the European sites; however, given the close proximity of the allocation to the European sites, the allocation policy includes requirements for addressing potential water quality issues prior to planning permission being granted, therefore no effects upon the nearby sites would be expected.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Travis Perkins, Sandside Policy: AS27 Site Ref: B81	Best use: Mixed use – residential, business and car parking. Dwelling potential: Not specified Size: 2.28ha	Morecambe Bay Pavements SAC 1 Morecambe Bay European Sites 0.07 Leighton Moss SPA and Ramsar site 3.6	The site is located within Sandside and comprises existing development. Part of the site was formerly occupied by the Travis Perkins builders' merchants, and most of the southern portion is currently in a variety of small business uses. The B5282 is located to the north and existing development to the east and west.	No	No	This site comprises existing development and hardstanding and therefore would not constitute FLL. The site is within 30 m of Morecambe Bay, as such the European site itself is of greater relevance than the closest FLL (which is more distant).	No- but Morecambe Bay European site within 100m	J	The proposed development site comprises a narrow strip (up to 30 m wide) extending along the estuary for 200 m before extending south away from the estuary, with the majority of the allocation being over 85 m from the European site. Given the existing degree of noise disturbance that is experienced on the adjacent estuary from the presence of a builders' yard, a significant increase in disturbance to birds within the SPA and Ramsar site is considered unlikely. There are no direct hydrological links from the site to the estuary; however, given the close proximity of the allocation to the European site, the allocation policy includes requirements for addressing potential water quality issues prior to planning permission being granted, therefore no effects upon the adjacent sites would be expected. The allocation policy also provides for the requirement of appropriate ecological surveys to identify any potential impacts and provide mitigation measures where required prior to permission being granted. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
The Ship Inn, Park Road, Sandside (part)	Best Use: Vehicular access route to site 81	Morecambe Bay Pavements SAC 1	The site comprises an existing area of hardstanding currently used for parking for The Ship Inn. With the B52682 to the north, a	No	No	The site comprises hardstanding and therefore does not constitute FLL. The site is within 70 m of Morecambe Bay, as such the	No- but Morecambe Bay European	H	The proposed development site is existing hardstanding to be converted for access to other allocations. Any works required to convert into an access route would be minimal and no effects upon the European sites would occur either alone or in combination.	No likely significant effect alone or in combination

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Allocation details		European sites potentially affected (km)	Site Description	Pink-footed Goose Square from IRZ layer?	Morecambe Bay Wader Roost within 1 km	Functionally Linked Land (FLL)	Hydro link?	Assessment Category	Potential impacts	Conclusion
Site name and reference number	Description and history									
Policy: AS27 Site Ref: B125	Size: 0.1ha	Morecambe Bay European Sites 0.07 Leighton Moss SPA and Ramsar site 3.6	quarry access track to the south, existing development to the east and residential curtilage to the west.			European site itself is of greater relevance than the closest FLL (which is more distant).	site within 100m			
Land North West of Sand Lane 1, Warton Policy: AS24 Site Ref: W88	Best Use: Housing Dwelling potential: 12 Size: 0.4ha	Morecambe Bay Pavements SAC 2.5 Morecambe Bay European Sites 0.4 Leighton Moss SPA and Ramsar site 4	The site comprises a strip along the south-eastern boundary of a larger, arable field with existing development on the other three sides.	No	No	Whilst the wider field and open farmland to the north west of the allocation could support SPA and Ramsar site species, the allocation itself (being adjacent to development is less likely to be regularly used) and therefore would not constitute FLL. There is a pink-footed goose index square 200 m to the north west where larger, more open fields close to the estuary are located and which are considered likely to represent FLL.	No	J	The allocation provides an infill between existing development, and is opposite a small residential area. The potential for an adverse effect on the European sites or adjacent FLL as a result of increased recreational pressure as a result of only 12 additional homes in this location is low and therefore would not be significant alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Land North of 17 Main Street, Warton Policy: AS25 Site Ref: W130	Best Use: Housing Dwelling potential: 16 Size: 0.53ha	Morecambe Bay Pavements SAC 2.2 Morecambe Bay European Sites 0.8 Leighton Moss SPA and Ramsar site 2.3	A partial redevelopment within Warton. The southern part of the site comprises existing residential development, with Main Street to the south. To the north the site is currently sheep-grazed, with existing residential dwellings present to the west and east and Crag Road and woodland beyond the field to the north.	No	No	Given the location of the site (being a partial redevelopment with existing development to the west and east) the allocation is not considered to constitute FLL. The wider field could be used by SPA and Ramsar site species however, the sloping nature of the site and surrounding woodland and hedgerows reducing sightlines suggest it is unlikely to be regularly used by significant numbers of birds and therefore is unlikely to be considered FLL. There is a pink-footed goose index square 600 m to the west where larger, more open fields close to the estuary are located and which are considered likely to represent FLL.	No	J	The allocation provides an infill between existing development and opposite a small residential area. The potential for an adverse effect on the European sites or adjacent FLL as a result of increased recreational pressure as a result of only 16 additional homes in this location is low and therefore would not be significant alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Land at Church Street, Beetham Policy: AS21	Best use: Housing Dwelling potential: 6 Size: 0.20ha	Morecambe Bay Pavements SAC 0.8 Morecambe Bay European Sites 1.9	Grazed field on the edge of Beetham Village. Church Street is located to the north of the site, with existing residential dwellings to the north east and south east and fields to the north west	No	No	Given the location of the allocation, whilst the wider field could be used by SPA and Ramsar site species the sloping nature, proximity of the road and reduced sightlines from adjacent woodland and hedgerows, it is not	No	J	The construction of 6 dwellings on this small site, over 2 km from Morecambe Bay, over 150 m from the closest potentially FLL, future development at this site is not expected to give rise to any effects upon the European sites alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)

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Allocation details		European sites potentially affected (km)	Site Description	Pink-footed Goose Square from IRZ layer?	Morecambe Bay Wader Roost within 1 km	Functionally Linked Land (FLL)	Hydro link?	Assessment Category	Potential impacts	Conclusion
Site name and reference number	Description and history									
Site Ref: B108		Leighton Moss SPA and Ramar site 3.7	and south west with a large block of woodland behind.			considered likely to be regularly used by significant numbers of birds and therefore the site not considered likely to constitute FLL. The closest area considered likely to be FLL is over 150 m to the north east, close to the River Bela.				
Land at Stanley Street, Beetham Policy: AS22 Site Ref: B112	Best use: Housing Dwelling potential: 4 Size: 0.10ha	Morecambe Bay Pavements SAC 0.5 Morecambe Bay European Sites 2.4 Leighton Moss SPA and Ramsar site 3.6	The site is a small part of a grazed field, with Stanley Road to the north, existing residential housing to the west and a school to the east. To the south is the remaining extent of the grazed field with woodland beyond.	No	No	Given the location of the allocation, whilst the wider field could be used by SPA and Ramsar site species the sloping nature, proximity of the road and reduced sightlines from adjacent woodland, it is not considered likely to be regularly used by significant numbers of birds and therefore is not considered to constitute FLL. The closest area considered likely to be FLL is over 150 m to the north east, close to the River Bela.	No	J	The construction of 4 dwellings on this small site approximately 2.5 km from Morecambe Bay, over 150 m from any potentially FLL, any future development at this site is not expected to give rise to any effects upon the European sites alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Land North of Yan Lane, Storth Policy: X Site Ref: B79	Best use: Housing Dwelling potential: 10 Size: 3.26 ha	Morecambe Bay Pavements SAC 0.5 Morecambe Bay European Sites 0.25 Leighton Moss SPA and Ramsar site 5	The site comprises one and a half pastoral fields located in Storth, with Yans Lane to the south, existing residential to the east and west and further fields and woodland to the north, separated by a hedgerow/ fenceline.	No	No	The fields within the allocation site are relatively small with boundary features reducing sightlines. They are surrounded by development and extensive woodland and therefore are not considered to constitute FLL. The closest suitable habitat for supporting SPA/Ramsar site species is the estuary itself, 200m to the north east.	No	J	The allocation provides for the construction of 10 dwellings on this site which is separated from closest the European sites by existing residential development, therefore no disturbance effects would occur. The potential for an adverse effect on the European sites as a result of increased recreational pressure as a result of only 10 additional homes in this location is low and therefore would not be significant alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Land East of Quarry Road 1, Sandside Policy: X Site Ref: B116	Best use: Business/mixed use Size: 1.15 ha	Morecambe Bay Pavements SAC 0.5 Morecambe Bay European Sites 0.25 Leighton Moss SPA and Ramsar site 4.6	The site comprises a pastoral field located in Storth, immediately adjacent to the south is the B79 site. To the west is existing residential development, to the east is woodland and to the north is hardstanding and existing development.	No	No	The allocation site comprises a small field with boundary features reducing sightlines. It is surrounded by development to the north and west, woodland to the east and allocation B79 to the south. Given its small size and location the site is not considered to constitute FLL. The closest suitable habitat for supporting SPA/Ramsar site species is the estuary itself, 180 m to the north.	No	J	The allocation provides for 1.15 ha of business/mixed use development. Housing is not proposed for the site. The allocation is separated from the closest European sites by existing residential development, therefore no disturbance effects would occur. No effects upon the European sites are expected alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)

Commented [LT4]: No policy number

Commented [LT5]: No policy number

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Allocation details		European sites potentially affected (km)	Site Description	Pink-footed Goose Square from IRZ layer?	Morecambe Bay Wader Roost within 1 km	Functionally Linked Land (FLL)	Hydro link?	Assessment Category	Potential impacts	Conclusion
Site name and reference number	Description and history									
Land East of Quarry Road 2, Sandside Policy: X Site Ref: B117	Best use: Business/Mixed use Size: 0.66 ha	Morecambe Bay Pavements SAC 0.9 Morecambe Bay European Sites 0.07 Leighton Moss SPA and Ramsar site 5	The majority of the site is a small holding, with woodland to the east, a quarry lane to the west, and pastoral fields to the north and south.	No	No	The allocation site comprises a small field enclosed by woodland to the south and east and an existing builders' merchants (forming allocation B81) to the north and west, therefore the site would not be considered to constitute FLL. The closest suitable habitat for supporting SPA/Ramsar site species is the estuary itself, 180 m to the north.	No- but Morecambe Bay European site within 100m	J	The allocation provides for 0.66 ha of business/mixed use development. Housing is not proposed for the site. The allocation is separated from the closest European sites by an existing builders' merchants and road, therefore no disturbance effects would occur. There are no hydrological links between the proposed development site and the European sites, therefore, no effects upon the European sites are expected alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)
Land East of St Johns Avenue, Silverdale Policy: X Site Ref: S50	Best use: Housing Dwelling potential: 8-10 Size: <0.5 ha	Morecambe Bay Pavements SAC 1.2 Morecambe bay European Sites 0.75 Leighton Moss SPA and Ramsar site : 1	The site comprises a small part of sheep grazed pasture, with residential dwellings to the north, west and south with the wider field and open farmland beyond to the east.	No	No	Given that the allocation comprises a small corner (<0.5 ha) of a larger grazed field with housing to the north, west and south and fields to the east, it is not considered likely to be regularly used by significant numbers of birds and therefore is not considered to constitute FLL. Whilst the wider field could support SPA and Ramsar site species, it is considered likely that birds would choose to use areas of similar habitat further to the west (more than 250 m away), closer to the Estuary.	No	J	The allocation provides for a small number of residential dwellings adjacent to existing development. There are no hydrological links between the proposed development site and the European sites. The potential for an adverse effect on the European sites or adjacent FLL as a result of increased recreational pressure as a result of only 10 additional homes in this location is low and therefore would not be significant alone. The potential in combination effects are assessed in Section 8.	No likely significant effect alone (refer to Section 8 for in combination assessment)

Commented [LT6]: Can the Council confirm the policy number

Commented [JW7]: Can the Council confirm if the policy details are the same as for other Quarry Road allocations in terms of including water quality references to add in here?

Commented [LT8]: Can the Council confirm the policy number

Commented [JW9]: No policy details – Can the Council confirm if the wording included requiring eco surveys/water quality measures as per most of the other allocation policies.

7 Screening Summary

7.1 Initial Screening

7.1.1 Fourteen European sites have been identified within, and up to 20 km from the AONB boundary. Following the initial screening of the DPD, eight were ruled out completely on the basis that there are no potential impact pathways which are likely to give rise to likely significant effects on these sites (refer to Table 5). The six remaining European sites considered in the detailed screening assessment comprised:

- Leighton Moss SPA
- Leighton Moss Ramsar
- Morecambe Bay SAC
- Morecambe Bay and Duddon Estuary SPA
- Morecambe Bay Ramsar
- Morecambe Bay Pavements SAC

7.1.2 In addition to Screening out eight of the European sites, all of the policies contained within the policy headings: Overall Strategy and Policy Issues were screened out completely from further assessment. This is on the basis that no identifiable impact pathway exists linking the policies with the European sites and/or because there will be no foreseeable adverse impact on European sites through Policy implementation. The justification for screening out these policies is presented in Table 7.

7.1.3 The policies with associated allocation sites listed within the policy heading 'Proposed Development Allocations – Housing' and 'Proposed Development Allocations – Mixed Use' were carried forward into the detailed screening assessment (with the exception of policies AS16 and AS17 which simply list the allocation sites, but the policy itself would not lead to change).

7.1.4 The potential impacts identified, as outlined in Section 6.2 comprised the following (the two highlighted in bold text were considered in the detailed screening assessment; refer to Section 6.2 for further details):

- **Disturbance/ displacement (including loss of functionally-linked land, disturbance/ displacement as a result of construction/ operational stages, and recreational pressure).**
- Atmospheric pollution.
- Loss of supporting habitat.
- **Water quality.**

7.2 Detailed Screening

7.2.1 The detailed screening (presented in Table 6) looked at the each of the allocation sites (in relation to the screened in potential impacts, refer to Section 6.2) to determine whether any of the allocation sites could have a likely significant effect on the European sites considered in this assessment. The detailed screening concluded the following:

Disturbance/ displacement

Loss of functionally-linked land

7.2.2 None of the allocation sites within the AONB are located on land which would be considered to constitute functionally linked land to a European site. Therefore, there would be no net loss of functionally-linked land associated with any future development of the allocation sites set out within the AONB DPD.

Disturbance/displacement to species as a result of construction activities /operational stage

7.2.3 None of the allocations detailed in Table 10 were considered to be located immediately adjacent to functionally-linked land which could be subject to disturbance during the construction phase of the development and/or subsequently displacement due to the presence of new development. Two

allocations (A25/26/27 and S56) were considered likely to be within 50 m of functionally-linked land. Whilst it is considered likely that some disturbance during construction could occur, given the proximity of the sites to functionally-linked land, the small size of the allocations, (1.03 ha and 0.3 ha respectively), and the requirement of the associated policy for appropriate ecological surveys prior to planning permission being granted, no significant effects upon the European sites would occur.

- 7.2.4 Although a proportion of the remaining allocations were in areas which could be considered suitable to support SPA birds, the review of ecological information used to inform the detailed assessment did not identify that the land was functionally-linked. (as stated in paragraph 7.3.1, this conclusion was based on an assessment of the of the ecological information available for each site). Construction disturbance/displacement would not be anticipated for the remaining allocation sites.
- 7.2.5 In relation to A25/26/27 and S56, any disturbance impacts due to construction would be short term in nature. In addition, due to the presence of existing development on or adjacent to the allocation sites, birds utilising the habitats near-by would already be habituated to a degree of disturbance. Neither of these allocations would extend the location of development closer to the functionally-linked land (or the European site itself); therefore, a significant increase in disturbance leading to the displacement of birds utilising the adjacent habitats as a result of the operational development would not be anticipated.
- 7.2.6 Overall any disturbance impacts as a result of development of the allocation sites within the AONB DPD would be not significant.

Disturbance to habitats and species through increased recreational activity, during operational stage

- 7.2.7 There is the potential for an increase in housing to increase recreational pressure on the adjacent Morecambe Bay European Sites and Morecambe Bay Pavements SAC for which recreational pressure is an identified threat within the Site Improvement Plans. However, given that the largest development has 16 houses it is concluded that there are no individual allocation sites would give rise to likely significant effects on Morecambe Bay, or Morecambe Bay Pavements SAC alone. However, all allocations within 3.5 km of Morecambe Bay European sites and Morecambe Bay Pavements SAC will be considered in the in-combination assessment (refer to Section 8).

Water quality

- 7.2.8 Two of the allocation sites within the AONB are considered to be hydrologically linked to a European site. In addition, five allocations are within 100m of the Morecambe Bay European Sites. Each of the allocations has an associated policy which outlines the requirements that would need to be met by any planning applications put forward for the allocation. As such, where hydrological links exist or sites are in close proximity to a European site, the policy specifies the requirement for addressing water quality issues including drainage and surface water reports, flood risk assessments and sewerage risks which would ensure any proposals with insufficient protection of water courses would not be granted planning consent. In addition, Policy AS13 within the DPD and Policies DM39/DM40 and Policy 22 within the adopted Lancaster and South Lakeland Local Plans respectively, which the DPD sit alongside, also provide policies which safeguard water quality from pollution as a result of development. No significant effects either alone or in combination with each other or in combination with other plans and projects upon the European sites as a result of an impact on water quality are anticipated.

8 In-combination Effects

8.1 Overview

- 8.1.1 In the in-combination assessment, the HRA needs to firstly consider the 'screened in' policies within the DPD to determine if the policies may lead to significant impacts upon European sites on their own. The assessment then needs to consider if the DPD could have a significant impact in combination with other plans and projects within the local area.

8.2 AONB DPD

- 8.2.1 The detailed screening exercise concluded that no in combination effects have been identified for the screened in policies set out within the AONB DPD, as detailed below.

Disturbance/ displacement

Loss of functionally-linked land

- 8.2.2 None of the sites allocated within the DPD for development are situated on functionally-linked land. Therefore, there would be no in combination effects in terms of loss of functionally-linked land across the AONB area.

Disturbance/displacement to species as a result of construction activities /operational stage

- 8.2.3 Where allocation sites are in close proximity to each other, the potential for increased disturbance as a result of construction of sites concurrently has been considered. The only location where several sites are in close proximity is Sandside, where seven allocations are located, totalling 8 ha of development. Whilst these sites are in close proximity to the Morecambe Bay European sites, only three of them (totalling 5 ha) comprise new development with the remaining allocations being redevelopment of a builders' merchants and other disused buildings/ hardstanding. Given that these areas are already subject to disturbance from the existing development, and there are no important high tide roosts in close proximity to the allocations, any in combination effects as a result of concurrent development would not be significant.
- 8.2.4 In addition, none of the allocations would affect the same areas of adjacent functionally-linked land, therefore, there would be no in combination effects associated with disturbance to functionally linked land.

Recreational pressure on Morecambe Bay European Sites and Morecambe Bay Pavements SAC

- 8.2.5 There is the potential for an increase in housing associated with the DPD as a whole to increase recreational pressure on the adjacent Morecambe Bay European Sites and Morecambe Bay Pavements SAC. As stated in paragraph 7.2.7, there are no individual allocation sites which could give rise to significant effects in terms of recreational pressure on Morecambe Bay and Morecambe Bay Pavements SAC alone due to their small size and location.
- 8.2.6 Within the AONB, the DPD includes a new housing stock of approximately 100 new dwellings, all of which are within the 3.5 km distance¹⁴ identified as the average distance that visitors to Morecambe Bay who were on a day-trip/short visit from home travelled.
- 8.2.7 The provision of up to 100 new dwellings within the whole of the AONB, all of which are sensitively located as in fill within or immediately adjacent to existing settlements is not considered to be of sufficient scale to lead to a likely significant effect upon the nearby European sites as a result of increased recreational pressure. However, there is a wider recognition that recreational pressure on the Morecambe Bay needs to be addressed, and this is discussed further in Section 8.3 below.

Commented [JW10]: Can the Council confirm that this is correct?

¹⁴ Liley, D., Underhill-Day, J., Panter, C., Marsh, P. & Roberts, J. (2015). Morecambe Bay Bird Disturbance and Access Management Report. Unpublished report by Footprint Ecology for the Morecambe Bay Partnership.

Water quality

- 8.2.8 Although there are two allocation sites within the AONB that are considered to be hydrologically linked to a European site, and a further five allocations are within 100 m of the Morecambe Bay European Sites, as stated in paragraph 7.2.8, policy wording has been put in place for these allocations within the AONB DPD to protect water quality. Therefore, no significant in combination effects upon the European sites as a result of an impact on water quality are anticipated.

8.3 Other Plans and projects

- 8.3.1 In addition to in combination effects of sites within the DPD itself described above, there is the potential for effects to occur upon the Morecambe Bay European sites and Morecambe Bay Pavements SAC in combination with other plans or projects. As the AONB sits alongside the Lancaster Local Plan and South Lakeland Local Plan, these would be the relevant Local Plans to take into consideration in the in combination assessment. It should be noted that both the Lancaster and South Lakeland Local Plans are currently going through a review process. Draft HRAs of both of the emerging Local Plans (available online) have concluded that potential effects on European sites cannot be ruled out, however, further details of the new Local Plans will be required before the HRAs can be completed.
- 8.3.2 The key strategic issue in the AONB and the wider region which could lead to significant in combination effects would be through increased recreational pressure. No potential in combination effects with other plans associated with disturbance/displacement to species as a result of construction activities /operational stage, loss of functionally linked land or water quality are anticipated (based on information in the current adopted Local Plans). Further details are provided below.

Disturbance/ displacement

Disturbance/displacement to species as a result of construction activities /operational stage

- 8.3.3 Where allocation sites could be in close proximity to each other at the boundary of the AONB and the adjacent districts of Lancaster and South Lakeland, the potential for increased disturbance as a result of construction of sites concurrently has been considered. From a review of the allocations sites within the adopted Local Plans, there are no allocation sites which would be at the boundary of the AONB and the neighbouring boroughs, therefore, there would be no significant in combination effects in respect of concurrent development at the border.
- 8.3.4 In addition, none of the allocations would affect the same areas of adjacent functionally-linked land, therefore, there would be no in combination effects with other plans associated with disturbance to birds using functionally linked land.

Loss of functionally linked land

- 8.3.5 Lancaster City Council are currently working on developing a strategic solution for functionally linked land as part of the HRA of their new emerging Local Plan. South Lakeland are working on a similar strategy. However, given that there are no allocations located on functionally linked land within the AONB area, there would be no in combination effects in terms of loss of functionally-linked land with neighbouring boroughs.

Water quality

- 8.3.6 No in combination effects with neighbouring plans associated with changes in water quality would be envisaged. The AONB DPD and the Lancaster and South Lakeland Local Plans all include a comprehensive suite of policies which have been put in place to protect water quality. New development within the AONB and wider region would need to adhere to all of these policies prior to planning consent being given. Therefore, there would be no in combination effects in terms of changes to water quality.

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Recreational pressure on Morecambe Bay European Sites and Morecambe Bay Pavements SAC

- 8.3.7 In relation to recreational pressure, the potential exists for a rise in visitor numbers to have a significant effect on Morecambe Bay as the housing developments are progressively completed across the region.
- 8.3.8 Given the small-scale of the development within the AONB (less than 100 new homes, with the largest development being less than 16 houses), it is unlikely that new housing developments in the AONB would significantly add to any potential in combination effect with other neighbouring boroughs of increasing visitor pressure on Morecambe Bay. However, the AONB are working closely with Morecambe Bay Partnership and have a number of strategies within the AONB Management Plan specifically to help tackle the issues associated with recreation pressure.
- 8.3.9 Section 5.2c of the AONB Management Plan¹⁵ looks at sustainable visitor economy and how initiatives have been put in place to manage recreation within the AONB.
- 8.3.10 Lancaster City Council, South Lakeland Council and the AONB are also all part of the Morecambe Bay Partnership which has produced several documents looking at the issues surrounding disturbance and recreational pressure (including the Wader Roost Study, 2013¹⁶, Morecambe Bay Bird Disturbance Report, 2015¹⁷, and the Waders and Wildfowl Interpretation Plan, 2017¹⁸).
- 8.3.11 Following on from these studies the Morecambe Bay Partnership states that: *'actions are currently being taken to ensure that Morecambe Bay's birds are afforded as much protection as possible. Actions identified within the Interpretation Plan are being taken forward. Natural Ambassador volunteers are helping to spread the word and implement practical solutions to bird disturbance in the Bay's most vulnerable spots for birds.'* Actions within the Interpretation Plan, which have been successful in a number of cases so far, look specifically at ways to educate the public on the importance of preserving the natural heritage associated with Morecambe Bay and how to influence behaviour to move visitors away from the more sensitive areas of the Bay.
- 8.3.12 These strategies, coupled with Objective 1 of the AONB *'to protect, conserve and enhance the special qualities of the Arnside & Silverdale AONB, including landscape character and visual amenity, wildlife, geology, heritage and settlement character; natural, historical and landscape qualities of the AONB'*, as well as the comprehensive policies in place to protect the natural environment within the AONB DPD and Lancaster and South Lakeland Local Plans (refer to Section 6.4) will all help towards protecting Morecambe Bay from increased recreational pressure.

9 Overall Conclusion

- 9.1.1 This HRA Screening of the AONB DPD has considered the potential implications of the AONB DPD for European sites within and near to the AONB boundary.
- 9.1.2 None of the allocation sites were considered likely to have significant effects on European sites alone, or in combination with other elements of the AONB DPD or with other plans adjacent to the AONB.
- 9.1.3 It has therefore been concluded that the AONB DPD will not have any likely significant effects on the European sites identified within this HRA Report, either alone or in combination.

¹⁵ Arnside & Silverdale Area of Outstanding Natural Beauty Statutory Management Plan 2014 - 2019

¹⁶ Marsh, Roberts, (201) Morecambe Bay Wader Roost Study Heritage Lottery funding.

¹⁷ Liley, D., Underhill-Day, J., Panter, C., Marsh, P. & Roberts, J. (2015). Morecambe Bay Bird Disturbance and Access Management Report. Unpublished report by Footprint Ecology for the Morecambe Bay Partnership.

¹⁸ Our Bay, Our Birds Headlands to Headspace Waders and Wildfowl Interpretation Plan January 2017. Morecambe Bay Partnership

APPENDIX A

European sites considered in the detailed screening assessment

Site Name	Qualifying Features		Current Condition and Vulnerability ¹⁹	Site Condition Assessment March 2013
	Habitats	Species		
Morecambe Bay SPA	N/A	<p>This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <p>During the breeding season;</p> <ul style="list-style-type: none"> • Little Tern <i>Sterna albifrons</i> • Sandwich Tern <i>Sterna sandvicensis</i> <p>Over winter;</p> <ul style="list-style-type: none"> • Bar-tailed Godwit <i>Limosa lapponica</i> • Golden Plover <i>Pluvialis apricaria</i> <p>This site also qualifies under Article 4.2 of the Directive (79/409/EEC) by supporting populations of European importance of the following migratory species:</p> <p>During the breeding season;</p> <ul style="list-style-type: none"> • Herring Gull <i>Larus argentatus</i> • Lesser Black-backed Gull <i>Larus fuscus</i> <p>On passage;</p> <ul style="list-style-type: none"> • Ringed Plover <i>Charadrius hiaticula</i> • Sanderling <i>Calidris alba</i> <p>Over winter;</p> <ul style="list-style-type: none"> • Curlew <i>Numenius arquata</i> • Dunlin <i>Calidris alpina alpina</i> • Grey Plover <i>Pluvialis squatarola</i> • Knot <i>Calidris canutus</i> • Oystercatcher <i>Haematopus ostralegus</i>, • Pink-footed Goose <i>Anser brachyrhynchus</i> • Pintail <i>Anas acuta</i> • Redshank <i>Tringa totanus</i> • Shelduck <i>Tadorna tadorna</i> • Turnstone <i>Arenaria interpres</i> <p>Assemblage qualification: A seabird assemblage of international importance</p> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 seabirds</p> <p>During the breeding season, the area regularly supports 61,858 individual seabirds (5 year peak mean for 1991/92 to 1995/96) including: Herring Gull <i>Larus argentatus</i>, Lesser Black-backed Gull <i>Larus fuscus</i>, Little Tern <i>Sterna albifrons</i>, Sandwich Tern <i>Sterna sandvicensis</i>.</p> <p>Assemblage qualification: A wetland of international importance.</p> <p>The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl</p> <p>Over winter, the area regularly supports 210,668 individual waterfowl (5 year peak mean for 1991/92 to 1995/96)</p>	<p>The site is subject to a wide range of pressures such as land-claim for agriculture, overgrazing, dredging, overfishing, industrial uses and unspecified pollution. However, overall the site is relatively robust and many of those pressures have only slight to local effects and are being addressed through Management Plans. The breeding tern interest is very vulnerable and the colony has recently moved to the adjacent Duddon Estuary. Positive management is being secured through management plans for non-governmental organisation reserves, Natural England's Site Management Statements, European Marine Site Management Scheme, and the Morecambe Bay Partnership.</p>	<p>Area favourable 94.23%</p> <p>Area unfavourable but recovering 5.77%</p> <p>Area unfavourable no change 0%</p> <p>Area unfavourable declining 0%</p> <p>Area destroyed / part destroyed 0%.</p>
Morecambe Bay Ramsar site	N/A	<p>Ramsar criterion 4</p> <p>The site is a staging area for migratory waterfowl including internationally important numbers of passage ringed plover <i>Charadrius hiaticula</i>.</p> <p>Ramsar criterion 5</p> <p>Assemblages of international importance:</p> <p>Species with peak counts in winter:</p> <p>223709 waterfowl (5 year peak mean 1998/99-2002/2003)</p> <p>Ramsar criterion 6 – species/populations occurring at levels of international importance.</p> <p>Qualifying Species/populations (as identified at designation):</p> <p>Species regularly supported during the breeding season:</p> <ul style="list-style-type: none"> • Lesser black-backed gull, <i>Larus fuscus graellsii</i>, • Herring gull, <i>Larus argentatus</i> • Sandwich tern, <i>Sterna (Thalasseus) sandvicensis</i> <p>Species with peak counts in spring/autumn:</p> <ul style="list-style-type: none"> • Great cormorant, <i>Phalacrocorax carbo</i> • Northern pintail, <i>Anas acuta</i>, • Common eider, <i>Somateria mollissima</i>, 	<ul style="list-style-type: none"> ▪ N/A 	<ul style="list-style-type: none"> ▪ See above.

¹⁹ Taken from Natura 2000 Standard Data Forms (SAC and SPA) and Ramsar Information Sheets.

Site Name	Qualifying Features		Current Condition and Vulnerability ¹⁹	Site Condition Assessment March 2013
	Habitats	Species		
		<ul style="list-style-type: none"> Eurasian oystercatcher, <i>Haematopus ostralegus</i> Ringed plover, <i>Charadrius hiaticula</i>, Grey plover, <i>Pluvialis squatarola</i>, Sanderling, <i>Calidris alba</i>, Eurasian curlew, <i>Numenius arquata</i>, Common redshank, <i>Tringa totanus</i>, Ruddy turnstone, <i>Arenaria interpres</i>, Lesser black-backed gull, <i>Larus fuscus graellsii</i>, <p>Species with peak counts in winter:</p> <ul style="list-style-type: none"> Great crested grebe, <i>Podiceps cristatus</i>, Pink-footed goose, <i>Anser brachyrhynchus</i> Eurasian wigeon, <i>Anas Penelope</i> Common goldeneye, <i>Bucephala clangula</i>, Red-breasted merganser, <i>Mergus serrator</i> European golden plover, <i>Pluvialis apricaria</i>, Northern lapwing, <i>Vanellus vanellus</i>, Red knot, <i>Calidris canutus islandica</i>, Dunlin, <i>Calidris alpina</i>, Bar-tailed godwit, <i>Limosa lapponica</i>, 		
Morecambe Bay and Duddon estuary SPA		<p>Annex 1 breeding species</p> <ul style="list-style-type: none"> Little tern (<i>Sternus albifrons</i>) Sandwich tern (<i>Sterna sansvicensis</i>) Common tern (<i>Sterns hirundo</i>) <p>Regularly occurring migratory species</p> <ul style="list-style-type: none"> Lesser black-backed gull (<i>Larus Fuscus graellsii</i>) European herring gull (<i>Larus argentatus argenteus</i>) <p>International important seabird assemblage of 20,000 individuals</p> <p>Annex 1 non-breeding season species</p> <ul style="list-style-type: none"> Whooper swan (<i>Cygnus Cygnus</i>) Little egret (<i>Egretta garzetta</i>) European golden plover (<i>Pluvialis apricaria</i>) Bar-tailed godwit (<i>Limosa lapponica</i>) Ruff (<i>Calidris pugnax</i>) Mediterranean gull (<i>Larus melancephalus</i>) <p>Regular occurring non-breeding species</p> <ul style="list-style-type: none"> Pink-footed goose (<i>Anser brachyrhynchus</i>) Common shelduck (<i>Tadorna tadorna</i>) Northern Pintail (<i>Anas acuta</i>) Eurasian oystercatcher (<i>Haematopus ostralegus</i>) Grey plover (<i>Pluvialis squatarola</i>) Common ringed plover (<i>Charadrius hiaticula</i>) Eurasian curlew (<i>Numenius arquata</i>) Black-tailed godwit (<i>Limosa limosa</i>) Ruddy turnstone (<i>Arenaria interpres</i>) Red knot (<i>Calidris canutus</i>) Sanderling (<i>Calidris alba</i>) Dunlin (<i>Calidris alpina alpine</i>) Common redshank (<i>Tringa tetanus</i>) Lesser black-backed gull (<i>Larus fuscus</i>) <p>Internationally important waterbird assemblage of over 20,000 individuals</p>	Refer to Morecambe Bay SPA	
Morecambe Bay Pavements SAC Area: 2609.69ha	Annex I habitats that are a primary reason for selection of this site: d oligo-mesotrophic waters with benthic vegetation of Chara spp. 5130 Juniperus communis formations on heaths or calcareous grasslands 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid sites)	N/A	The site is subject to a number of problems related to the decline of traditional management practices. The under-grazing of grasslands and decline of traditional cattle grazing is leading to the loss of sward diversity and scrub encroachment problems. Localised overgrazing (sheep-dominated) has impoverished the pavement flora on one of the component sites. A	Cringlebarrow and Deepdale SSSI – 100% unfavourable recovering. Gait Barrows SSSI Units 19 and 22 unfavourable recovering. Units 24, 25, 26 and 27 favourable. 92.50% favourable. 7.50% unfavourable recovering. Hawes Water SSSI Units 1, 3, 5, 6, 7, 9, 10 favourable.

Site Name	Qualifying Features		Current Condition and Vulnerability ¹⁹	Site Condition Assessment March 2013
	Habitats	Species		
Within the AONB	<p>8240 Limestone pavements * Priority feature</p> <p>9180 Tilio-Acerion forests of slopes, screes and ravines * Priority feature</p> <p>91J0 Taxus baccata woods of the British Isles * Priority feature</p> <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <p>4030 European dry heaths</p> <p>7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae * Priority feature</p> <p>91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles</p> <p>Annex II species that are a primary reason for selection of this site</p> <p>1014 Narrow-mouthed whorl snail <i>Vertigo angustior</i></p>		<p>decline of traditional coppice management has reduced the interest of some of the woodland sites. The planting of non-native conifer crops on some of the sites has led to localised declines in condition. However, large parts of the site are nature reserves and are sensitively managed. A further restoration project funded by LIFE Nature is in progress to remove non-native conifer plantations and further other aspects of site restoration. The problems are being addressed primarily through a series of management agreements. These include English Nature Wildlife Enhancement Schemes, Environmentally Sensitive Area Agreements and Woodlands Grant Schemes.</p>	<p>Units 2, 4, 8, 11, 13, 14, 15, 16, 17, 18 (not within SAC) 19 unfavourable recovering. Unit 12 unfavourable no change due to area with low canopy cover. 18.20% favourable, 80.98% unfavourable recovering, 0.81% unfavourable no change.</p> <p>Middlebarrow SSSI Unit 1 (not in SAC) unfavourable recovering. Unit 2 (not in SAC) favourable. Unit 3 unfavourable declining with cotoneaster removal being the required action and deer control needing addressing.</p> <p>Thrang End and Yealand Hall Allotment SSSI Units 1, 2 (not in SAC) and 3 unfavourable recovering. 100% unfavourable recovering.</p> <p>Thrang Wood SSSI Unit 1 favourable. 100% favourable. Underlaid Wood SSSI Units 1, 2, 3 (not in SAC), 4 and 5 unfavourable recovering. 100% unfavourable recovering.</p>
Morecambe Bay SAC Area: 61506.22ha Within the AONB	<p>Annex I habitats that are a primary reason for selection of this site:</p> <ul style="list-style-type: none"> • 1130 Estuaries • 1140 Mudflats and sandflats not covered by seawater at low tide • 1160 Large shallow inlets and bays • 1220 Perennial vegetation of stony banks • 1310 Salicornia and other annuals colonizing mud and sand • 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) • •2120 "Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")" • 2130 "Fixed coastal dunes with herbaceous vegetation ("grey dunes")" * Priority feature • 2190 Humid dune slacks <p>Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site</p> <ul style="list-style-type: none"> • 1110 Sandbanks which are slightly covered by sea water all the time • 1150 Coastal lagoons * Priority feature • 1170 Reefs • 2110 Embryonic shifting dunes • •2150 Atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) * Priority feature • 2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) <p>Annex II species that are a primary reason for selection of this site</p> <ul style="list-style-type: none"> • 1166 Great crested newt <i>Triturus cristatus</i> <p>Note, Sea Lamprey <i>Petromyzon marinus</i>, Twait Shad <i>Alosa fallax</i> and Grey Seal <i>Halichoerus grypus</i> also listed as Annex II species on Natura 2000 Data Form but are not listed on the JNCC website or on the conservation objectives. The Natura 2000 data form is dated 200305, the conservation objectives are dated 30 June 2014 and the JNCC information is undated.</p>		<p>There are a wide range of pressures on Morecambe Bay but the site is relatively robust and many of these pressures have only slight or local effects on its interests. The interests depend largely upon the coastal processes operating within the Bay, which have been affected historically by human activities including coastal protection and flood defence works. Opportunities to reverse coastal squeeze are being explored. The saltmarsh is traditionally grazed and is generally in favourable condition for its bird interest. Most of the saltmarsh is traditionally grazed and is utilised by breeding, wintering and migrating birds for feeding, roosting and nesting purposes. Positive management is being secured through NGO reserve management plans, English Nature's Site Management Statements and Coastal Wildlife Enhancement Scheme, the European Marine Site Management Schemes for the Duddon Estuary and Morecambe Bay, and the Duddon Estuary and Morecambe Bay Partnerships. These aim for sustainable use of the site, taking account of other potential threats including commercial fisheries, aggregate extraction, gas exploration, recreation and other activities.</p>	<p>Morecambe Bay SSSI Units 1, 2, 4, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 18, 19, 20, 21, 22, 23, 24, 25, 26 favourable. Unit 3, 17 unfavourable recovering. 94.23% favourable, 5.77% unfavourable recovering.</p>
Leighton Moss SPA Area 128.61ha Within the AONB		<p>The site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of the following species listed on Annex I of the Directive:</p> <p>During the breeding season;</p>	<p>Leighton Moss is the largest reedbed in North West England and is vulnerable to changes in water quality and water levels. Since the establishment of a reserve at Leighton Moss in 1964 the RSPB has raised water levels and</p>	<p>Leighton Moss SSSI Units 1 and 2 unfavourable recovering. 100% unfavourable recovering.</p>

Site Name	Qualifying Features		Current Condition and Vulnerability ¹⁹	Site Condition Assessment March 2013
	Habitats	Species		
		<p>Bittern <i>Botaurus stellaris</i>, 4 individuals representing at least 10% of the breeding population in Great Britain.</p> <p>Marsh harrier <i>Circus aeruginosus</i>, 2 pairs representing at least 1.3% of the breeding population in Great Britain</p> <p>Over winter;</p> <p>Bittern, 8 individuals representing at least 8% of the wintering population in Great Britain.</p>	<p>actively managed the site in order to maintain and enhance its Phragmites dominated fen and open water to provide optimum conditions for its nationally important reedbed birds. This has involved water level management, ditch maintenance work, the coppicing and control of invading willow scrub, as well as the annual rotational cutting of reedbeds. The decline of booming bitterns on the site, reflecting a national trend, has been halted through detailed research and improved management of the site. This management, which also benefits other birds on the site, has involved further refinement of reedbed management and the manipulation of the reed/open water interface and with increased water level control.</p> <p>The maintenance of a high quality spring fed water supply is important and although there are few opportunities for this to become polluted within the catchment, agricultural run-off from land immediately adjacent to the reserve has been identified as a potential hazard in recent years. Initiatives are currently being initiated to reduce/remove this threat by the EA.</p> <p>The Moss is also susceptible to saline intrusion upstream of its tidal sluice from Morecambe Bay. This is potentially one of the most damaging threats to the reserve, there having been three inundations since 1964 caused by gales pushing in unusually high 10 metre tides. Fortunately these have occurred during the winter when the vegetation has been dormant and as such the effects have only been minor. It is proposed that the lowest point of the sea wall next to the tidal sluice be raised when strengthening the Quaker Stang sea defences, taking into account predicted sea level rise due to global warming in order to improve the tidal defences in the area.</p>	
<p>Leighton Moss Ramsar Area 128.61ha Within the AONB</p>	<p>Leighton Moss is the largest reedbed in north-west England and is situated on the eastern edge of Morecambe Bay in Lancashire. Large areas of open water are surrounded by extensive reedbeds in which areas of willow scrub and mixed fen vegetation also occur. A typical and varied fen flora has developed in part, whilst the reedbed shows all stages of seral transition from open water through to woodland.</p> <p>Ramsar criterion 1</p> <p>An example of large reedbed habitat characteristic of the biogeographical region. The reedbeds are of particular</p>	<p>Ramsar criterion 3</p> <p>The site supports a range of breeding birds including bittern, marsh harrier and bearded tit. Species occurring in nationally important numbers outside the breeding season include northern shoveler <i>Anas clypeata</i> and water rail <i>Rallus aquaticus</i>.</p>	<p>Sedimentation/siltation – Natural processes causing sedimentation. This results in increased turbidity and loss of aquatic flora and subsequently decreased quality of bittern habitat.</p> <p>Pollution – pesticides/agricultural runoff – Slurry from adjacent dairy farm and inorganic compounds from other agricultural sources.</p>	<p>Leighton Moss SSSI Units 1 and 2 unfavourable recovering. 100% unfavourable recovering.</p>

Site Name	Qualifying Features		Current Condition and Vulnerability ¹⁹	Site Condition Assessment March 2013
	Habitats	Species		
	importance as a northern outpost for breeding populations of bittern, marsh harrier and bearded tit <i>Panurus biarmicus</i> .			

Definitions of terms:

Favourable: The designated feature(s) within a unit are being adequately conserved and the results from monitoring demonstrate that the feature(s) in the unit are meeting all the mandatory site specific monitoring targets set out in the FCT. The FCT sets the minimum standard for favourable condition for the designated features and there may be scope for the further (voluntary) enhancement of the features / unit. A unit can only be considered favourable when all the component designated features are favourable.

Unfavourable recovering: Often known simply as 'recovering'. Units/features are not yet fully conserved but all the necessary management mechanisms are in place. At least one of the designated feature(s) mandatory attributes are not meeting their targets (as set out in the site specific FCT). Provided that the recovery work is sustained, the unit/feature will reach favourable condition in time.

Unfavourable declining: The unit/feature is not being conserved and will not reach favourable condition unless there are changes to site management or external pressures. The site condition is becoming progressively worse, and this is reflected in the results of monitoring over time, with at least one of the designated features mandatory attributes not meeting its target (as set out in the site specific FCT) with the results moving further away from the desired state. The longer the SSSI unit remains in this poor condition, the more difficult it will be, in general, to achieve recovery.

APPENDIX B

Conservation Objectives



European Site Conservation Objectives for Leighton Moss Special Protection Area Site Code: UK9005091

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- **The extent and distribution of the habitats of the qualifying features**
- **The structure and function of the habitats of the qualifying features**
- **The supporting processes on which the habitats of the qualifying features rely**
- **The population of each of the qualifying features, and,**
- **The distribution of the qualifying features within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

A021 *Botaurus stellaris*; Great bittern (Breeding)

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a [Special Protection Area \(SPA\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 30 June 2014 (Version 2). This document updates and replaces an earlier version dated 29 May 2012 to reflect Natural England's Strategic Standard on European Site Conservation Objectives 2014. Previous references to features listed in the 2001 UK SPA Review have also been removed.



European Site Conservation Objectives for Morecambe Bay Special Protection Area Site Code: UK9005081

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- **The extent and distribution of the habitats of the qualifying features**
- **The structure and function of the habitats of the qualifying features**
- **The supporting processes on which the habitats of the qualifying features rely**
- **The population of each of the qualifying features, and,**
- **The distribution of the qualifying features within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

- A040 *Anser brachyrhynchus*; Pink-footed goose (Non-breeding)
- A048 *Tadorna tadorna*; Common shelduck (Non-breeding)
- A054 *Anas acuta*; Northern pintail (Non-breeding)
- A130 *Haematopus ostralegus*; Eurasian oystercatcher (Non-breeding)
- A137 *Charadrius hiaticula*; Ringed plover (Non-breeding)
- A141 *Pluvialis squatarola*; Grey plover (Non-breeding)
- A143 *Calidris canutus*; Red knot (Non-breeding)
- A149 *Calidris alpina alpina*; Dunlin (Non-breeding)
- A157 *Limosa lapponica*; Bar-tailed godwit (Non-breeding)
- A160 *Numenius arquata*; Eurasian curlew (Non-breeding)
- A162 *Tringa totanus*; Common redshank (Non-breeding)

- A169 *Arenaria interpres*; Ruddy turnstone (Non-breeding)
- A191 *Sterna sandvicensis*; Sandwich tern (Breeding)
- Waterbird assemblage
- Seabird assemblage

This is a European Marine Site

This SPA is a part of the Morecambe Bay European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the Regulation 35 Conservation Advice document for the EMS. For further details about this please visit the Natural England website at <http://www.naturalengland.org.uk/ourwork/marine/protectandmanage/mpa/europeansites.aspx> or contact Natural England's enquiry service at enquiries@naturalengland.org.uk or by phone on 0845 600 3078.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where this is available) will also provide a framework to inform the management of the European Site under the provisions of Articles 4(1) and 4(2) of the Wild Birds Directive, and the prevention of deterioration of habitats and significant disturbance of its qualifying features required under Article 6(2) of the Habitats Directive.

These Conservation Objectives are set for each bird feature for a [Special Protection Area \(SPA\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.



European Site Conservation Objectives for Morecambe Bay Pavements Special Area of Conservation Site Code: UK0014777

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- The extent and distribution of qualifying natural habitats and habitats of qualifying species
- The structure and function (including typical species) of qualifying natural habitats
- The structure and function of the habitats of qualifying species
- The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- The populations of qualifying species, and,
- The distribution of qualifying species within the site.

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H3140. Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.; Calcium-rich nutrient-poor lakes, lochs and pools

H4030. European dry heaths


H5130. *Juniperus communis* formations on heaths or calcareous grasslands

H6210. Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*); Dry grasslands and scrublands on chalk or limestone

H7210. Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; Calcium-rich fen dominated by great fen sedge (saw sedge)*

H8240. Limestone pavements*

H9180. *Tilio-Acerion* forests of slopes, screes and ravines; Mixed woodland on base-rich soils associated with rocky slopes*



H91A0. Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; Western acidic oak woodland
H91J0. *Taxus baccata* woods of the British Isles; Yew-dominated woodland*
S1014. *Vertigo angustior*, Narrow-mouthed whorl snail

* denotes a priority natural habitat or species (supporting explanatory text on following page)

*** Priority natural habitats or species**

Some of the natural habitats and species listed in the Habitats Directive and for which SACs have been selected are considered to be particular priorities for conservation at a European scale and are subject to special provisions in the Directive and the Habitats Regulations. These priority natural habitats and species are denoted by an asterisk (*) in Annex I and II of the Directive. The term 'priority' is also used in other contexts, for example with reference to particular habitats or species that are prioritised in UK Biodiversity Action Plans. It is important to note however that these are not necessarily the priority natural habitats or species within the meaning of the Habitats Directive or the Habitats Regulations.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2010 (the "Habitats Regulations") and Article 6(3) of the Habitats Directive. They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features as required by the provisions of Article 6(1) and 6(2) of the Directive.

These Conservation Objectives are set for each habitat or species of a [Special Area of Conservation \(SAC\)](#). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in Article 1 of the Habitats Directive.

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Arcadis Consulting (UK) Limited

The Mill
Brimscombe Port
Stroud
GL5 2QG
United Kingdom
T: +44 (0)1453 423 100

arcadis.com

