

Ministry of Justice

HMP Haverigg
HRA Screening
Assessment

Final report

Prepared by LUC

October 2021

Ministry of Justice

HMP Haverigg HRA Screening Assessment

Version	Status	Prepared	Checked	Approved	Date
1.	Issue 1 – draft report for client comment	E Mayhead	S Jackson-Matthews	S Jackson-Matthews	05.08.2021
2.	Issue 2 – final report	E. Mayhead	R. Turner	R. Turner	21.10.2021

Bristol
Edinburgh
Glasgow
London
Manchester

landuse.co.uk

Land Use Consultants Ltd
Registered in England
Registered number 2549296
Registered office:
250 Waterloo Road
London SE1 8RD

100% recycled paper

Landscape Design
Strategic Planning & Assessment
Development Planning
Urban Design & Masterplanning
Environmental Impact Assessment
Landscape Planning & Assessment
Landscape Management
Ecology
Historic Environment
GIS & Visualisation



Contents

Chapter 1

Introduction

Background to the Project Proposal	1
Site Description	1
The requirement to undertake Habitats Regulations Assessment of Development Proposals	2
Stages of HRA	3
Recent Case Law	4
Structure of this report	5

Chapter 2

Method

Screening Assessment	6
Identification of European sites which may be affected by the Project	6
Assessment of 'Likely Significant Effect'	7
Interpretation of 'Likely Significant Effect'	7
Mitigation provided by the project	8
In-combination Effects	8
Appropriate Assessment	8

Chapter 3

1 Screening Assessment

9

1	Identification of European Sites	9
1	HRA Screening Assessment	9
	In-combination Effects	13

Chapter 4

Conclusion

14

	Summary and Next Steps	14
--	------------------------	----

6

Appendix A

Solar Farm Landscape Proposals

A-1

6

Appendix B

European Site Information

B-1

Chapter 1

Introduction

1.1 In May 2021, LUC was commissioned by The Ministry of Justice (MOJ) to undertake a Habitat Regulations Assessment (HRA) for the proposed development of a solar farm at HMP Haverigg, which is located 1km to the west of the village of Haverigg in Cumbria.

Background to the Project Proposal

1.2 The MOJ is seeking to power the prison site through the development a ground-mounted solar farm within the Site. Further details are provided in **Figure 1, Appendix A.**

Site Description

1.3 HMP Haverigg is located to the west of Haverigg village in Cumbria (OS Grid Reference: SD 14359 78854). The proposed solar array site is proposed within a disused field that forms part of the MOJ owned land immediately to the south-west of the prison. This land was previously the site of a Royal Air Force airfield training centre. Old satellite imagery of the site also suggests that it was previously used for agriculture.

1.4 Habitats present within the solar array site included bare ground (fallow field) with signs of early vegetational communities and low levels of scrub. This is as a result of recent management changes in 2020 and 2021 to the solar array site, including ploughing/rotovation, grazing from Hardwick cows and clearance of scrub.

1.5 This represents a change in habitat since the ecology survey undertaken by Arcadis Consulting UK Ltd in May 2019¹. The 2019 survey previously described the area of the proposed PV solar arrays as comprised of coarse tussocky improved grassland, species-rich short perennial grassland representative of the priority habitat Open Mosaic Habitats on Previously Developed Land, and dense scrub.

1.6 Beyond the boundaries of the MOJ site, the surrounding area is comprised of arable fields to the north, east and west and coastline to the south.

¹ Arcadis (2019) Ecological Assessment – HMP Haverigg Back Field

The requirement to undertake Habitats Regulations Assessment of Development Proposals

1.7 The requirement to undertake HRA of development plans was confirmed by the amendments to the Habitats Regulations published for England and Wales in 2007²; the currently applicable version is the Conservation of Habitats and Species Regulations 2017, (as amended)³. The Ministry of Justice on behalf of Copeland Borough Council is required by law to carry out a HRA for development proposals that have the potential to adversely affect a European site. Ministry of Justice can commission consultants to undertake HRA work on its behalf and this (the work documented in this report) is then reported to and considered by Copeland Borough Council as the 'competent authority'. Copeland Borough Council will consider this work and would usually⁴ only consent a development if it considers that the Project will not adversely affect the integrity⁵ of any 'European site', as defined below.

1.8 HRA refers to the assessment of the potential effects of a proposed development on one or more sites afforded the highest level of protection in the UK: SPAs and SACs. These were classified under European Union (EU) legislation but, since 1 January 2021, are protected in the UK by the Habitats Regulations 2017² (as amended). Although the EU Directives from which the UK's Habitats Regulations originally derived are no longer binding, the Regulations still make reference to the lists of habitats and species that the sites were designated for, which are listed in annexes to the EU Directives:

- SACs are designated for particular habitat types (specified in Annex 1 of the EU Habitats Directive⁶) and species (Annex II).
- SPAs are classified for rare and vulnerable birds (Annex I of the EU Birds Directive⁷), and for regularly occurring migratory species not listed in Annex I.

1.9 The term 'European sites' was previously commonly used in HRA to refer to 'Natura 2000' sites⁸ and Ramsar sites (international designated under the Ramsar Convention).

However, a Government Policy Paper⁹ on changes to the Habitats Regulations 2017 post-Brexit states that:

- Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new 'national site network'.
- The national site network includes existing SACs and SPAs; and new SACs and SPAs designated under these Regulations.
- Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the national site network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats.

1.10 Although Ramsar sites do not form part of the new national site network, the Government Policy Paper¹⁰ confirms that all Ramsar sites remain protected in the same way as SACs and SPAs. In LUC's view and unless the Government provides any guidance to the contrary, potential effects on Ramsar sites should continue to form part of the HRA of projects since the requirement for HRA of projects that might adversely affect Ramsar sites forms an essential part of the protection confirmed by the Government Policy Paper. Furthermore, the NPPF¹¹ and practice guidance¹² currently still state that competent authorities responsible for carrying out HRA should treat Ramsar sites in the same way as SACs and SPAs.

1.11 The requirement for HRA does not apply to other nationally designated wildlife sites such as Sites of Special Scientific Interest or National Nature Reserves; therefore, for clarity, this report uses the term 'European sites' rather than 'national site network'.

1.12 The overall purpose of the HRA is to conclude whether or not a proposal would adversely affect the integrity of the site in question. This is judged in terms of the implications of the project for a site's 'qualifying features' (i.e. those Annex I habitats, Annex II species, and Annex I bird populations for which it has been designated). Significantly, HRA is based on

² The Conservation (Natural Habitats, &c.) (Amendment) Regulations 2007 (2007) SI No. 2007/1843. TSO (The Stationery Office), London.

³ The Conservation of Habitats and Species Regulations 2017 (2017) SI No. 2017/1012, as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579).

⁴ The exception to this would be where 'imperative reasons of overriding public interest' can be demonstrated; see paragraph 1.17.

⁵ The integrity of a site is the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was designated. (Source: UK Government Planning Practice Guidance)

⁶ Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive')

⁷ Directive 2009/147/EC of 30 November 2009 on the conservation of wild birds (the 'Birds Directive')

⁸ The network of protected areas identified by the EU:

https://ec.europa.eu/environment/nature/natura2000/index_en.htm

⁹ <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>

¹⁰ <https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017>

¹¹ NPPF para 176, available from

<https://www.gov.uk/guidance/national-planning-policy-framework>

¹² The HRA Handbook, Section A3. David Tyldesley & Associates, a subscription based online guidance document:

<https://www.dtapublications.co.uk/handbook/European>

the precautionary principle. Where uncertainty or doubt remains, an adverse effect should be assumed.

Stages of HRA

1.13 The HRA of development proposals is undertaken in stages (as described below) and should conclude whether or not a proposal would adversely affect the integrity of the European site in question.

1.14 In assessing the effects of a project in accordance with Regulation 105 of the Conservation of Habitats and Species Regulations 2017, (as amended), there are potentially two tests to be applied by the competent authority: a 'Significance Test' followed, if necessary, by an Appropriate Assessment which would inform the 'Integrity Test'. The relevant sequence of questions is as follows:

- Step 1: Under Reg. 105(1)(b), consider whether the project is directly connected with or necessary to the management of the sites. If not, as is the case for the this development proposal, proceed to Step 2.
- Step 2: Under Reg. 105(1)(a) consider whether the project is likely to have a significant effect on a European

site, either alone or in combination with other plans or projects (the 'Significance Test'). If yes, proceed to Step 3.

- Step 3: Under Reg. 105(1), make an Appropriate Assessment of the implications for the European site in view of its current conservation objectives (the 'Integrity Test'). In so doing, it is mandatory under Reg. 105(2) to consult Natural England, and optional under Reg. 105(3) to take the opinion of the general public.
- Step 4: In accordance with Reg. 105(4), but subject to Reg. 107, give effect to the project only after having ascertained that it would not adversely affect the integrity of a European site.
- Step 5: Under Reg. 107, if Step 4 is unable to rule out adverse effects on the integrity of a European site and no alternative solutions exist then the competent authority may nevertheless agree to the project if it must be carried out for 'imperative reasons of overriding public interest' (IROPI).

1.15 Table 1-1 summarises the stages involved in carrying out a HRA based on various guidance documents^{13, 14}.

Table 1-1: Stages of HRA

Stage	Task	Outcome
Stage 1: Screening (the 'Significance Test')	<p>Description of the development proposal and confirmation that it is not directly connected with or necessary to the management of European sites.</p> <p>Identification of potentially affected European sites and their conservation objectives¹⁵.</p> <p>Review of other projects.</p> <p>Assessment of likely significant effects of the development proposal alone or in combination with other plans and projects, prior to consideration of avoidance or reduction ('mitigation') measures¹⁶.</p>	<p>Where effects are unlikely, prepare a 'finding of no significant effect report'.</p> <p>Where effects judged likely, or lack of information to prove otherwise, proceed to Stage 2.</p>
Stage 2: Appropriate Assessment (the 'Integrity Test')	<p>Information gathering (development proposal and data on European sites¹⁷).</p> <p>Impact prediction.</p> <p>Evaluation of development proposal impacts in view of conservation objectives of European sites.</p>	<p>Appropriate Assessment report describing the proposal, European site baseline conditions, the adverse effects of the proposal on the European site, how these effects will be avoided through, firstly, avoidance, and secondly, mitigation including the mechanisms and timescale for these mitigation measures.</p>

¹³ UK Government Planning Practice Guidance, available from <https://www.gov.uk/guidance/appropriate-assessment>

¹⁴ The HRA Handbook. David Tyldesley & Associates, a subscription based online guidance document:

<https://www.dtapublications.co.uk/handbook/>

¹⁵ Conservation objectives are published by Natural England for SACs and SPAs.

¹⁶ In line with the CJEU judgment in Case C-323/17 People Over Wind v Coillte Teoranta, mitigation must only be taken into consideration at this stage and not during Stage 1: HRA Screening.

¹⁷ In addition to SAC and SPA citations and conservation objectives, key information sources for understanding factors contributing to the integrity of the sites include (where available) conservation objectives supplementary advice and Site Improvement Plans prepared by Natural England: <http://publications.naturalengland.org.uk/category/5458594975711232>

Stage	Task	Outcome
	Where impacts are considered to directly or indirectly affect qualifying features of European sites, identify how these effects will be avoided or reduced ('mitigation').	If effects remain after all alternatives and mitigation measures have been considered proceed to Stage 3.
Stage 3: Assessment where no alternatives exist and adverse impacts remain taking into account mitigation	Identify and demonstrate 'imperative reasons of overriding public interest' (IROPI). Demonstrate no alternatives exist. Identify potential compensatory measures.	This stage should be avoided if at all possible. The test of IROPI and the requirements for compensation are extremely onerous.

1.16 It is normally anticipated that an emphasis on Stages 1 and 2 of this process will, through a series of iterations, help ensure that potential adverse effects are identified and eliminated through the avoidance of likely significant effects at Stage 1, and through Appropriate Assessment at Stage 2 by the inclusion of mitigation measures designed to avoid, reduce or abate effects. The need to consider alternatives could imply more onerous changes to a proposal. It is generally understood that so called 'imperative reasons of overriding public interest' (IROPI) are likely to be justified only very occasionally and would involve engagement with the Government.

1.17 The HRA should be undertaken by the 'competent authority' - in this case the Ministry of Justice are providing information to support an assessment Copeland Borough Council, and LUC has been commissioned to do this on behalf of the Ministry of Justice. The HRA also requires close working with Natural England as the statutory nature conservation body in order to obtain the necessary information and agree the process, outcomes and any mitigation proposals.

Recent Case Law

1.18 This HRA has been prepared in accordance with recent case law findings, including most notably the recent 'People over Wind' and 'Holohan' rulings from the Court of Justice for the European Union (CJEU).

1.19 The recent 'People over Wind, Peter Sweetman v Coillte Teoranta' judgment ruled that Article 6(3) of the Habitats Directive should be interpreted as meaning that mitigation measures should be assessed as part of an Appropriate Assessment and should not be taken into account at the screening stage. The precise wording of the ruling is as follows:

"Article 6(3)must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take

account of measures intended to avoid or reduce the harmful effects of the plan or project on that site."

1.20 In light of the above, the HRA screening stage for the project has not relied upon avoidance or mitigation measures to draw conclusions as to whether the project would result in likely significant effects on European sites, with any such measures being considered at the Appropriate Assessment stage as appropriate. This is discussed in more detail in **Section 3** below.

1.21 This HRA also fully considers the recent *Holohan v An Bord Pleanala* (9 Nov 2018) CJEU judgement which stated that:

"Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that an 'appropriate assessment' must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that the competent authority is permitted to grant to a plan or project consent which leaves the developer free to determine subsequently certain parameters relating to the construction phase, such as the location of the construction compound and haul routes, only if that authority is certain that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

Article 6(3) of Directive 92/43 must be interpreted as meaning that, where the competent authority rejects the findings in a scientific expert opinion recommending that additional information be

obtained, the 'appropriate assessment' must include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned."

1.22 In undertaking this HRA, LUC has fully considered the potential for effects on species and habitats, including those not listed as qualifying features, to result in secondary effects upon the qualifying features of European sites, including the potential for complex interactions and dependencies. In addition, the potential for offsite impacts, such as through impacts to functionally linked land, and or species and habitats located beyond the boundaries of European site, but which may be important in supporting the ecological processes of the qualifying features, has also been fully considered in this HRA.

1.23 In addition to this, the HRA has taken into consideration the 'Wealden' judgement and the 'Dutch Nitrogen Case' judgement from the Court of Justice for the European Union.

1.24 *Wealden District Council v Secretary of State for Communities and Local Government, Lewes District Council and South Downs National Park Authority* (2017) ruled that it was not appropriate to scope out the need for a detailed assessment for an individual plan or project based on AADT figures detailed in the Design Manual for Roads and Bridges or the critical loads used by DEFRA or Environmental Agency without considering the in-combination impacts with other plans and projects.

1.25 In light of this judgement, the HRA has considered traffic growth based on the effects of development provided for by the project in combination with other drivers of growth such as development proposed in neighbouring districts and demographic change.

1.26 The 'Coöperatie Mobilisation for the Environment and Vereniging Leefmilieu (Dutch Nitrogen)' judgement stated that "May the positive effects of the autonomous decrease in the nitrogen deposition ... be taken into account in the appropriate

assessment..., it is important that the autonomous decrease in the nitrogen deposition be monitored and, if it transpires that the decrease is less favourable than had been assumed in the appropriate assessment, that adjustments, if required, be made"

1.27 The judgement states that according to previous case law "...it is only when it is sufficiently certain that a measure will make an effective contribution to avoiding harm to the integrity of the site concerned, by guaranteeing beyond all reasonable doubt that the plan or project at issue will not adversely affect the integrity of that site, that such a measure may be taken into consideration in the 'appropriate assessment' within the meaning of Article 6(3) of the Habitats Directive"

1.28 The HRA will therefore only consider the existence of conservation and/or preventative measures if the expected benefits of those measures are certain at the time of the assessment. The HRA will also ensure that if a threshold approach is applied it will consider the risk of significant effects being produced even if below the threshold values to ensure that there is no adverse effect on integrity of the European sites.

Structure of this report

1.29 This chapter (**Chapter 1**) has described the background to the project and the requirement to undertake HRA. The remainder of the report is structured into the following sections:

- **Chapter 2** sets out the approach used, and specific tasks undertaken during the HRA.
- **Chapter 3** describes the findings of the screening stage of the HRA.
- **Chapter 4** summarises the HRA conclusions for the proposals to implement a solar farm at HMP Haverigg and describes the next steps to be undertaken

Chapter 2

Method

2.1 The HRA comprises of two stages; Screening Assessment; and Appropriate Assessment. The methods undertaken for each of these assessments is provided in more detail below.

Screening Assessment

2.2 HRA Screening of the proposed development has been undertaken in line with current guidance and in accordance with the requirements of the Habitats regulations. The tasks that have been undertaken during the screening stage of the HRA and the conclusions reached are described in detail below. This section sets out impact types for which likely significant effects are predicted or cannot be ruled out prior to mitigation and avoidance measures.

2.3 The purpose of the screening stage is to:

- Identify all aspects of the project which would have no effect on a European site, so that that they can be eliminated from further consideration in respect of this and other plans and projects;
- Identify all aspects of the project which would not be likely to have a significant effect on a European site (i.e. would have some effect, because of links/connectivity, but which are not significant), either alone or in combination with other aspects of the same project or other plans or projects, which therefore do not require 'appropriate assessment'; and
- Identify those aspects of the project where it is not possible to rule out the risk of significant effects on a European site, either alone or in combination with other plans or projects. This provides a clear scope for the parts of the project that will require appropriate assessment.

Identification of European sites which may be affected by the Project

2.4 European sites identified for inclusion in the HRA are presented in **Figure 2, Appendix B** and listed below:

- Duddon Estuary Ramsar
- Morecambe Bay and Duddon Estuary SPA
- Morecambe Bay SAC

2.5 Copeland Borough Council's Local Plan 2013-2028 states that a buffer of 20km should be applied to all development proposals to identify European sites that may be affected by development¹⁸. However, this assessment applies a distance of 2km to identify European sites likely to be affected by impacts relating to development due to the small-scale and nature of the development. Additionally, there is no ecological connectivity to additional European sites beyond this distance. In addition to this, consideration was also given to European sites connected to the development beyond this distance, for example through hydrological pathways.

2.6 The designated features and conservation objectives of the European sites, together with current pressures and potential threats, was established using Data Forms for SACs and SPAs¹⁹ and Information Sheets for Ramsar Wetlands published on the JNCC website²⁰, as well as Natural England's Site Improvement Plans²¹, Supplementary Advice Notes²² and the most recent conservation objectives published on the Natural England website (most were published in 2014)²³. This analysis enabled European site interest features to be identified, along with the features of each European site which determine site integrity and the specific sensitivities and threats facing the site. This information was then used to inform an assessment of how the potential impacts of the project may result in likely significant effects on each of the European sites in question, either alone or in-combination.

Assessment of 'Likely Significant Effect'

2.7 As required under Regulation 105 of The Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations'), an assessment has been undertaken of the 'likely significant effects' of the project. The assessment has been prepared in order to identify which impact types arising from the project would be likely to have a significant effect on European sites. The screening assessment has been conducted without taking pre-embedded mitigation into account, in accordance with the 'People over Wind' judgment.

2.8 Consideration will be given to the potential for the development proposed to result in significant effects associated with:

- Physical loss of/damage to habitat.
- Non-physical disturbance (noise, vibration and light).
- Non-toxic contamination.
- Air pollution.
- Recreation pressure.
- Changes to hydrology including water quality and quantity.

2.9 A risk-based approach involving the application of the precautionary principle is adopted in the assessment, such that a conclusion of 'no significant effect' will only be reached where it is considered very unlikely, based on current knowledge and the information available, that a proposal in the project would have a significant effect on the integrity of a European site. The screening assessment identifies assumptions that have been applied to enable specific impacts on European sites to either be screened in or out.

Interpretation of 'Likely Significant Effect'

2.10 Relevant case law helps to interpret when effects should be considered as a Likely Significant Effect, when carrying out HRA of a proposed development.

2.11 In the Waddenzee case²⁴, the European Court of Justice ruled on the interpretation of Article 6(3) of the Habitats Directive (translated into Reg. 102 in the Habitats Regulations), including that:

2.12 An effect should be considered 'likely', *"if it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site"* (para 44). An effect should be considered 'significant', *"if it undermines the conservation objectives"* (para 48). Where a plan or project has an effect on a site *"but is not likely to undermine its conservation objectives, it cannot be considered likely to have a significant effect on the site concerned"* (para 47).

2.13 An opinion delivered to the Court of Justice of the European Union²⁵ commented that:

"The requirement that an effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable

¹⁸ Copeland Borough Council (2013) Local Plan 2013-2028 pg. 167 [Online] Available at: https://www.copeland.gov.uk/sites/default/files/attachments/copeland_local_plan_2013_2028.pdf Accessed: 28th July 2021

¹⁹ These were obtained from the Joint Nature Conservation Committee and Natural England websites (www.jncc.gov.uk and www.naturalengland.org.uk)

²⁰ www.jncc.defra.gov.uk

²¹ Natural England is in the process of compiling Site Improvement Plans for all Natura 2000 sites in England as part of the Improvement programme for England's Natura 2000 sites (IPENS).

²² Supplementary Advice Notes, Natural England, <http://publications.naturalengland.org.uk/category/6490068894089216>

²³ <http://publications.naturalengland.org.uk/category/6490068894089216>

²⁴ ECJ Case C-127/02 "Waddenzee" Jan 2004.

²⁵ Advocate General's Opinion to CJEU in Case C-258/11 Sweetman and others v An Bord Pleanala 22nd Nov 2012.

effect on the site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."

2.14 This opinion (the 'Sweetman' case) therefore allows for the authorisation of plans and projects whose possible effects, alone or in combination, can be considered 'trivial' or de minimis; referring to such cases as those "*which have no appreciable effect on the site*". In practice such effects could be screened out as having no Likely Significant Effect; they would be 'insignificant'.

Mitigation provided by the project

2.15 In accordance with the recent 'People over Wind' judgement, avoidance and mitigation measures cannot be relied upon at the Screening Stage, and therefore, where such measures exist, they will be considered at the Appropriate Assessment stage where likely significant effects, either alone or in-combination, cannot be ruled out.

In-combination Effects

2.16 Regulation 102 of the Amended Habitats Regulations 2017 requires an Appropriate Assessment where "*a land use plan is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of the site*". Therefore, it will be necessary to consider whether any impacts identified from the proposed development may combine with other plans or projects to give rise to significant effects in combination.

2.17 This exercise will be carried out as part of the screening stage of the HRA. The potential for in-combination effects has only been considered for those project components identified as unlikely to have a significant effect alone, but which could act in combination with other plans and projects to produce a significant effect. This approach accords with recent guidance on HRA²⁶.

2.18 The first stage in identifying 'in-combination' effects involves identifying which other plans and projects in addition to the proposed development may affect the European sites that will be the focus of this assessment.

2.19 Case law and guidance suggest that a plan or project at any of the following stages may be relevant to the in-combination assessment:

- applications lodged but not yet determined.

- projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration.
- refusals subject to appeal procedures not yet determined.
- projects with consent but not yet started.
- projects started but not yet completed.
- known projects that do not need consent.
- proposals in adopted plans.
- proposals in finalised draft plans formally published or submitted for final consultation or adoption.

Appropriate Assessment

2.20 The Appropriate Assessment stage of HRA focuses on related impacts judged likely to have a significant effect at the Screening stage, and seeks to conclude whether, in light of mitigation and avoidance measures, they would result in an adverse effect on the integrity (AEoI) of the qualifying features of a European site(s), either alone or in-combination with other plans and projects, or where insufficient certainty regarding this remains (in which case an AEoI would be assumed in accordance with the precautionary principle). The integrity of a site depends on the site being able to sustain its 'qualifying features' across the whole of the site and ensure their continued viability. This is considered in detail below.

²⁶ <https://www.gov.uk/guidance/appropriate-assessment>

Chapter 3

Screening Assessment

3.1 As described in Chapter 2, a screening assessment was carried out to identify which components of the development project have the potential to result in likely significant effects on European sites, and this was carried out prior to consideration of mitigation provided by the development proposals in accordance with the 'People over Wind' judgment. The results of the screening assessment are presented below.

Identification of European Sites

3.2 European sites identified for inclusion in the HRA included:

- Duddon Estuary Ramsar
- Morecambe Bay and Duddon Estuary SPA
- Morecambe Bay SAC

3.3 Detailed information describing these sites is provided in **Appendix B**.

3.4 All other European sites lacked source-pathway-receptor connectivity and were therefore not included as part of this assessment.

HRA Screening Assessment

3.5 For some types of impacts, screening for likely significant effects has been determined on a proximity basis, using GIS data to determine the proximity of potential development locations to the European sites that are the subject of the assessment. However, there are many uncertainties associated with using set distances as there are very few standards available as a guide to how far impacts will travel. Therefore, during the screening stage a number of assumptions have been applied in relation to assessing the likely significant effects on European sites that may result from the proposal, as described below.

Physical Damage and Loss (Onsite)

3.6 The location of the solar farm is outside of the boundary of all European sites and therefore impacts as a result of direct physical damage and loss was not predicted in relation to proposed development associated with this application.

No LSE was predicted in relation to onsite physical damage and loss as a result of proposed

development and was therefore screened out at the screening stage.

Physical Damage and Loss (Offsite)

3.7 There is potential for habitat loss outside of the European sites boundaries to result in an LSE where that habitat contributes to maintain the interest feature for which the European site is designated. This includes land which may provide offsite movement corridors or feeding and sheltering habitat for mobile species such as birds, fish and amphibians.

3.8 Impacts in relation to physical damage and loss of offsite functional habitat was considered in relation to Duddon Estuary Ramsar, Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC, which all support transient and mobile species as detailed below.

Duddon Estuary Ramsar

3.9 The Ramsar supports Natterjack toad, which is a qualifying species of the European site. Natterjack toad relies on habitats within the Ramsar and also the wider area, which are functionally connected to the Ramsar, to maintain a viable population. The habitats of the development site consist of a fallow field with signs of early vegetational communities and limited scrub, which are deemed unsuitable for foraging, burrowing or hibernating Natterjack toad. In the wider area, marshy grassland may provide suitable foraging habitat. A pond located approximately 480m south-west of the proposed solar farm was assessed as being unsuitable to support breeding Natterjack toad due to the depth, permanence of the water body and the presence of waterfowl which predate on Natterjack toads and their eggs^{27, 28}. There is also a drainage ditch located 400m south-west, which is deemed unsuitable for breeding Natterjack toads. The maximum distance between breeding sites for Natterjacks is recommended to be 2km in order to retain connectivity²⁹. This suggests that the dispersal distance for Natterjacks is 2km, therefore, the marshy habitats surrounding the proposed development site have the potential to be within the home range of Natterjack toads occupying the sand dune habitats of the European site. However, the habitats of the development are not deemed to

be suitable for Natterjack toad and therefore, it does not provide functionally linked habitat for this species.

3.10 The Ramsar also supports two British Red Data Book (RDB) invertebrate species. The RDB invertebrates, *Colletes cunicularis*, *Psen littoralis* are both dependant on the sand dune habitats of the Ramsar^{30, 31}. *Hypocaccus rugiceps* is also dependant on sand dune habitats of the Ramsar³². Therefore, the habitats of the proposed development site are not considered to provide functionally linked habitat for these invertebrate species.

3.11 The Ramsar also supports nationally important numbers of waterfowl during spring and autumn passage. In addition, over winter the Ramsar supports an internationally important assemblage of waterfowl and internationally important populations of Northern pintail, Red knot and Common redshank.

3.12 The assemblage of waterfowl during spring and autumn passage and the assemblage of waterfowl over winter will predominately rely on the coastal and estuarine habitats for feeding and roosting, however some species may also use terrestrial habitats such as agricultural fields and semi-improved and improved grassland such as that present at the development site. Although the proposed development is within 2km of the Ramsar and may provide suitable functionally linked foraging habitat, there is available foraging habitat in the surrounding area. Additionally, the location of the proposed development adjacent to the prison and the presence of scrub makes this area less suitable for foraging. Therefore, there should be no likely significant effect upon the waterfowl assemblage during spring and autumn passage.

3.13 The winter diet of the Northern pintail is mainly plant material including fruits, seeds and rhizomes of aquatic plants but the Pintail sometimes feeds on roots, grain and other seeds in fields, though less frequently than other *Anas* spp..³³ Although the proposed development is within 2km of the Ramsar and may provide suitable functionally linked foraging habitat, the site of the proposed PV solar arrays is considered to provide unsuitable habitat for this bird species due to the recent presence of scrub, which was removed in 2020 and 2021 and the location of a perimeter fence, which obstructs views and increases vulnerability from predators. This species

²⁷ Arcadis (2019) Ecological Assessment – HMP Haverigg Back Field

²⁸ Baker, J., Beebee T., Buckley, J., Gent, A. and Orchard, D. (2011). Amphibian Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth.

²⁹ Sinsch, U., Oromi, N., Miaud, C., Denton, J. & Sanuy, D. (2012). Connectivity of local amphibian populations: modelling the migratory capacity of radio-tracked natterjack toads. *Animal Conservation* 15, 388-396.

³⁰ Jones, M.L.M., Sowerby, A. and Rhind, P.M., (2010). Factors affecting vegetation establishment and development in a sand dune

chronosequence at Newborough Warren, North Wales. *Journal of Coastal conservation*, 14(2), pp.127-137.

³¹ Falk, S., (1991). A review of the scarce and threatened bees, wasps and ants of Great Britain (Vol. 35). Peterborough: Nature Conservancy Council.

³² Lane, S. A. (2017) A review of the status of the beetles of Great Britain - The clown beetles and false clown beetles - *Histeridae* and *Sphaeritidae*. Natural England. Commissioned Reports, Number235.

³³ Slimbridge Wetland Centre Northern Pintail *Anas acuta* [Online] Available at: <https://slim-bridge.co.uk/northern%20pintail.html> Wildfowl & Wetlands Trust.

prefers open, unenclosed habitats and as such is considered unlikely to be present within the solar array site. Therefore, there should be no likely significant effect upon the wintering Northern pintail.

3.14 Red knot have a diet of invertebrates, molluscs and crustaceans and forage within intertidal habitats of the Duddon Estuary. Similarly, during the winter, Common redshank have a diet of marine invertebrates and forage within the intertidal habitats of the estuary. Therefore, the habitats of the proposed development site do not provide functionally linked habitat for this species.

No LSE was predicted in relation to physical damage and loss as a result of proposed development and was therefore screened out at the screening stage.

Morecambe Bay and Duddon Estuary SPA

3.15 Morecambe Bay and Duddon Estuary SPA supports a variety of waterfowl and seabirds during the breeding and non-breeding seasons, in addition to a number of migratory breeding and non-breeding waterfowl species. Many of these species depend solely on the coastal and estuarine habitats of the SPA. Although the proposed development is within 2km of the SPA and may provide suitable functionally linked foraging habitat, the site of the proposed PV solar arrays is considered to provide unsuitable habitat for this bird species due to the recent presence of scrub, which was removed in 2020 and 2021 and the location of a perimeter fence, which obstructs views and increases vulnerability from predators. These species typically prefer open, unenclosed habitats and as such is considered unlikely to be present within the solar array site. Therefore, there should be no likely significant effect upon waterfowl and seabirds in any season.

No LSE was predicted in relation to physical damage and loss as a result of proposed development and was therefore screened out at the screening stage.

Morecambe Bay SAC

3.16 The southern shore of Morecambe Bay SAC supports Great Crested Newt³⁴, which is a qualifying species of the European site. This is sufficiently distant and disconnected from Haverigg and so the proposed development does not provide functionally linked habitat for this species.

No LSE was predicted in relation to physical damage and loss as a result of proposed development and was therefore screened out at the screening stage.

Non-physical Damage and Loss

3.17 Noise and lighting effects have the potential to disturb birds using the habitats of the estuary and are thus a key consideration with respect to European sites where these species are qualifying features. The works do not involve construction using vibrational tools and therefore, this is not deemed to present a risk of non-physical disturbance upon the qualifying features of the European sites.

3.18 It has been assumed that the effects of noise and lighting are most likely to be significant within a distance of 500 metres. There is also evidence of 300 metres being used as a distance up to which certain bird species can be disturbed by the effects of noise, however it has been assumed (on a precautionary basis) that the effects of noise are capable of causing an adverse effect if development takes place within 500 metres of a European site with qualifying features sensitive to these disturbances.

3.19 Duddon Estuary Ramsar, Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC are all within 500m of the proposed development and therefore the qualifying features of these European sites may be susceptible to non-physical disturbance as a result of the proposed development. In addition, there is potential for non-physical disturbance of qualifying features of these European sites using functionally linked habitat within or immediately adjacent to the proposed development.

Duddon Estuary Ramsar

3.20 The Ramsar supports Natterjack toad, which is a transient and mobile species for which the habitats surrounding the proposed development may provide functionally linked habitat. Natterjack toads rely on calling at night during the mating season as a reproductive cue³⁵ which plays a role in their reproductive success. Therefore, noise pollution at night could impact on the breeding success of nearby Natterjack toad populations. However, the construction of the solar farm will be undertaken during daylight hours and so there should be no impact upon Natterjack toad's mating calls during the breeding season. Additionally, as Natterjack toads are a nocturnal species, it may be susceptible to lighting impacts. The proposed development does not involve the

³⁴ Morecambe Bay SAC [Online] Available at: <https://sac.jncc.gov.uk/site/UK0013027> Accessed: 15th July 2021.

³⁵ Arak, A., 1983. Sexual selection through male-male competition in natterjack toad choruses. *Nature* 306, 261-262.

installation of lighting, therefore, there should be no potential for non-physical disturbance upon Natterjack toad.

3.21 The Ramsar supports three invertebrate species associated with the sand dune habitats along the coast. The nearest suitable habitat for these species is approximately 400m from the proposed development and although these are mobile species, they are likely to be restricted to the coastal and estuarine habitats and are not likely to be sensitive to noise or light pollution 400m away. Therefore, there should be no non-physical disturbance impacts upon these invertebrates.

3.22 The Ramsar supports nationally important numbers of waterfowl during spring and autumn passage. In addition, over winter the Ramsar supports an internationally important assemblage of waterfowl and internationally important populations of Northern pintail, Red knot and Common redshank.

3.23 Waterfowl and seabirds are sensitive to noise and potentially to light when foraging and roosting and the proposed development is within 500m of the Ramsar. However, the construction activities do not involve high intensity noise and as the proposed development is adjacent to the prison, which is likely to result in some level of background noise, and due to the distance of 400m from the boundary of the Ramsar, construction of the proposed development should not result in disturbance of waterfowl and seabirds of the Ramsar.

No LSE was predicted in relation to non-physical damage and loss as a result of proposed development and was therefore screened out at the screening stage.

Morecambe Bay and Duddon Estuary SPA

3.24 Morecambe Bay and Duddon Estuary SPA supports a variety of waterfowl and seabirds during the breeding and non-breeding season, in addition to a number of migratory breeding and non-breeding waterfowl species. Many of these species depend solely on the coastal and estuarine habitats of the SPA. However, some species such as Northern pintail also forage on agricultural fields and other semi-improved and improved grasslands.

3.25 Waterfowl and seabirds are sensitive to noise and potentially to light when foraging and roosting and the proposed development is within 500m of the SPA. However, the construction activities do not involve high intensity noise and as the proposed development is adjacent to the prison, which is likely to result in some level of background noise, and due to the distance of 400m from the boundary of the SPA,

construction of the proposed development should not result in disturbance of waterfowl and seabirds of the SPA.

No LSE was predicted in relation to non-physical damage and loss as a result of proposed development and was therefore screened out at the screening stage.

Morecambe Bay SAC

3.26 The southern shore of Morecambe Bay SAC supports Great Crested Newt, however this is located approximately 5km from the proposed development. Therefore, there should be no potential for non-physical disturbance impacts upon the qualifying features of this European site.

No LSE was predicted in relation to non-physical damage and loss as a result of proposed development and was therefore screened out at the screening stage.

Air Pollution

3.27 Proposed development is not expected to generate an increase in vehicle traffic along strategic roads, including motorways and A-roads, which lie within 200m of a European site.

3.28 Operation of the solar farm will not result in any emissions of airborne pollutants.

No LSE was predicted in relation to air pollution as a result of proposed development and was therefore screened out at the screening stage.

Recreation

3.29 The proposed development is not expected to result in an increase in recreational pressure to European sites due to the nature of the development and the fact that the development is on land under private ownership and not publicly accessible.

No LSE was predicted in relation to recreational disturbance as a result of proposed development and was therefore screened out at the screening stage.

Water Quantity

3.1 The proposed development is not expected to result in an increased demand in water abstraction and therefore, no impacts are predicted in relation to water quantity.

No LSE was predicted in relation to water quantity as a result of proposed development and was therefore screened out at the screening stage.

Water Quality

3.2 The proposed development site is not hydrologically connected any European site. Therefore, there is no potential for construction related pollution to affect the water quality of the European sites.

No LSE was predicted in relation to water quality as a result of proposed development and was therefore screened out at the screening stage.

In-combination Effects

3.3 Where impacts will not occur, there is no mechanism for in-combination effects. However, a search of the Copeland Borough Council planning portal³⁶ and the National Infrastructure planning portal³⁷ was undertaken, which identified the following proposals that were assessed for in-combination effects.

■ **4/02/0505/0 - Extension to lifetime of Haverigg II and Haverigg III Wind Farms. Approved.**

This proposal is for an extension to the lifetime of Haverigg II and III windfarms, which should not result in in-combination effects with the solar farm proposals as the planning approval requires that mitigation stated within the HRA for the extension to the wind farm is implemented within 6 months of planning approval by April 2021 and the HRA concluded that with this mitigation there would be no adverse effect on the ecological integrity of the Morecambe Bay and Duddon Estuary SPA/Ramsar, either alone or in combination with any other plan or project. Additionally, due to the nature of the wind farm proposal there is no potential for impact upon the qualifying features of the Morecambe Bay SAC.

■ **4/15/2022/0F1 - The erection, 25 year operation and decommissioning of 5 wind turbines. Approved**

The timings of this proposal are unknown. If construction takes place at the same time as for this solar farm development there should be no risk of in-combination effects as the solar farm proposals are small in scale and nature and although the wind farm covers a larger area of the surrounding grassland habitat to the immediate south and west of HMP Haverigg, there is available grassland in the wider landscape to the north.

3.4 There were no Nationally Significant Infrastructure Projects identified in the local area.

³⁶ Copeland Borough Council Planning Portal [Online] Available at: <https://www.copeland.gov.uk/planning/application-search> Accessed: 04th August 2021

³⁷ National Infrastructure Planning Portal [Online] Available at: <https://infrastructure.planninginspectorate.gov.uk/projects/> Accessed: 04th August 2021

Chapter 4

Conclusion

Summary and Next Steps

Screening Assessment

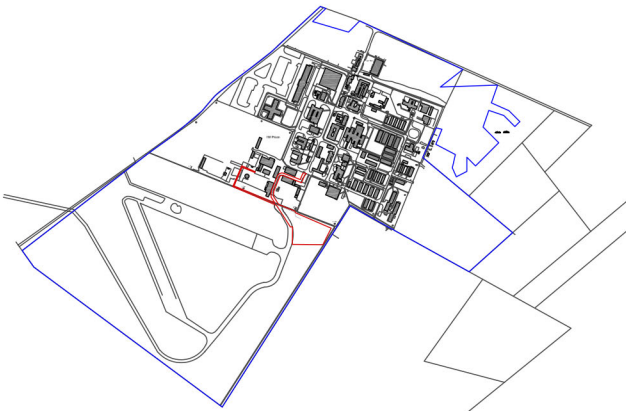
4.1 The HRA Screening Assessment of the proposed development concluded no likely significant effect upon the qualifying features of interest of Duddon Estuary Ramsar, Morecambe Bay and Duddon Estuary SPA and Morecambe Bay SAC in relation to physical damage and loss (on- and offsite), non-physical disturbance, air pollution, recreation and water quantity and quality.

Appropriate Assessment

4.2 No LSE was identified in relation to the proposed solar farm development at HMP Haverigg and therefore, there was no requirement to conduct an Appropriate Assessment or implement mitigation measures as part of the proposals to ensure no adverse effect on the integrity of the European sites. No next steps are required.

Appendix A

Solar Farm Landscape Proposals

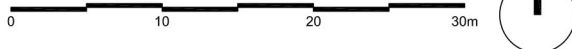


LOCATION PLAN Not to Scale

- KEY**
- Ownership boundary
 - Application boundary
 - Proposed access route
 - Proposed connection route
 - Proposed photovoltaic panels
 - Existing grass re-instated
 - Proposed species rich grassland
 - Existing hardstanding reinstated
 - Proposed invertebrate habitat
 - Proposed hibernacula

Ecological features
Proposed invertebrate habitat: 2 no.
Proposed hibernacula: 1 no.

Iss	Date	Description	Drm	Chk
D	19.10.21	Updated to new layout	SC	AJ
C	15.10.21	Updated following Client comments	TP	AJ
B	16.08.21	Final concept design	SC	AJ
A	06.07.21	First Issue	RL	AJ



General Notes:
A. Do not scale from this drawing.
B. Drawing & design copyright LUC.
C. Reproduction of this drawing in whole or in part is prohibited without prior permission.

LUC LUC London 250 Waterloo Road, London, SE1 8RD +44 (0)20 7383 5784 london@landuse.co.uk www.landuse.co.uk		Project HMP Haverigg Solar Farm North Lane, Haverigg, Millom, LA18 4NA	
Client Mace (on behalf of the Ministry of Justice)		Scale @ A2 1:500	
Drawing Title Proposed Solar Farm Concept Landscape Proposals		Status RIBA Stage 2 / Concept	
Job Nr 11357	Drawing Nr LUC-11357-LD-PLN-112	Issue D	

Appendix B

European Site Information

4.3 This table below contains information about the European sites scoped into the HRA. Information about each site's area, the site descriptions, qualifying features and pressures and threats are drawn from Natural England's Site Improvement Plans (SIPs)³⁸, Standard Data Forms or Ramsar Information Sheets available from the JNCC website³⁹ and Supplementary Advice Notes⁴⁰, which advise on the sites features and how to implement the conservation objectives. Site conservation objectives are drawn from Natural England's website and are only available for SACs and SPAs⁴¹.

³⁸ Site Improvement Plans: East of England, Natural England, <http://publications.naturalengland.org.uk/category/4873023563759616>
³⁹ JNCC Data Forms <http://jncc.defra.gov.uk/default.aspx?page=4>
⁴⁰ Supplementary Advice Notes, Natural England, <http://publications.naturalengland.org.uk/category/6490068894089216>

⁴¹ European Site Conservation Objectives, Natural England, <http://www.naturalengland.org.uk/ourwork/conservation/designations/sac/conservationobjectives.aspx>

Site Name	Area (ha)	Qualifying Features	Key Vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying Habitats and/or species depend
Duddon Estuary Ramsar	6806.3	<p>Ramsar Criterion 2</p> <p>Supports nationally important numbers of the rare natterjack toad <i>Bufo calamita</i>, (an estimated 18-24% of the British population). Supports a rich assemblage of wetland plants and invertebrates - at least one nationally scarce plant and at least two British Red Data Book invertebrates.</p> <p>Ramsar Criterion 4</p> <p>The site supports nationally important numbers of waterfowl during spring and autumn passage.</p> <p>Ramsar Criterion 5</p> <p>Assemblages of international importance:</p> <p>Species with peak counts in winter:</p> <p>26326 waterfowl (5 year peak mean 1998/99-2002/2003)</p> <p>Ramsar Criterion 6</p> <p>Species/populations occurring at levels of international importance over winter.</p> <ul style="list-style-type: none"> ■ Northern Pintail <i>Anas acuta</i> ■ Red knot <i>Calidris canutus islandica</i> 	There are no vulnerabilities listed for Ramsar sites and so the conservation objectives for the Duddon Estuary and Morecambe Bay SPA and Morecambe Bay SAC referenced below should be applicable.	Conservation objectives have not been identified for Ramsar sites and so the conservation objectives for the Duddon Estuary and Morecambe Bay SPA and Morecambe Bay SAC referenced below should be applicable.	<p>In general, qualifying species of the Ramsar rely on:</p> <ul style="list-style-type: none"> ■ Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. ■ Active and ongoing conservation management to protect, maintain or restore these habitats. <p>More specific information has been provided for each qualifying species below:</p> <p>Natterjack toad <i>Bufo calamita</i></p> <ul style="list-style-type: none"> ■ Habitat: sand dunes, saltmarshes, grazing marsh, lowland heaths ■ Diet: small invertebrates, molluscs, worms <p>Waterfowl assemblage during Spring and Autumn passage and overwintering waterfowl</p> <ul style="list-style-type: none"> ■ Habitat: Saltmarsh, mudflats, open water, rocky intertidal habitat, grazing marsh, wet grassland ■ Diet: crustaceans, molluscs, invertebrates, fish, aquatic plants <p>Northern pintail <i>Anas acuta</i></p> <ul style="list-style-type: none"> ■ Habitat: intertidal habitat, saltmarshes, grazing marsh, wet grassland

Site Name	Area (ha)	Qualifying Features	Key Vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying Habitats and/or species depend
		<ul style="list-style-type: none"> Common redshank <i>Tringa totanus totanus</i> 			<ul style="list-style-type: none"> Diet: plant material including fruits, seeds and rhizomes of aquatic plants and sometimes feeds on roots, grain and other seeds in fields <p>Red knot <i>Calidris canutus islandica</i></p> <ul style="list-style-type: none"> Habitat: intertidal habitat, saltmarsh, mudflats Diet: invertebrates, molluscs and crustaceans <p>Common redshank <i>Tringa totanus totanus</i></p> <ul style="list-style-type: none"> Habitat: intertidal habitat, saltmarsh, mudflats Diet: invertebrates, molluscs and crustaceans
Morecambe Bay SAC	61538.23	<p>1130 Estuaries</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1160 Large shallow inlets and bays</p> <p>1220 Perennial vegetation of stony banks</p> <p>1310 Salicornia and other annuals colonising mud and sand</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p> <p>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i></p> <p>2130 Fixed coastal dunes with herbaceous vegetation</p> <p>2190 Humid dune slacks</p>	<ul style="list-style-type: none"> Outdoor sports and leisure activities, recreational activities Fishing and harvesting aquatic resources Air pollution, air-borne pollutants 	<p>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;</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats and habitats of qualifying species The structure and function (including typical species) of qualifying natural habitats 	<p>In general, qualifying habitats and species of the SAC rely on:</p> <ul style="list-style-type: none"> Key species to maintain the structure, function and quality of habitat. Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. Active and ongoing conservation management to protect, maintain or restore these habitats. <p>More specific information has been provided for each qualifying species as follows:</p> <p>Great Crested Newt <i>Triturus cristatus</i></p> <ul style="list-style-type: none"> Habitat: Humid dune slacks, wet grasslands, wetlands, wet woodlands, scrub, deadwood Diet: small invertebrates, molluscs, worms

Site Name	Area (ha)	Qualifying Features	Key Vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying Habitats and/or species depend
		1166 Great Crested Newt <i>Triturus cristatus</i>		<ul style="list-style-type: none"> 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. 	
Morecambe Bay and Duddon Estuary SPA	66899.0	<p>The following non-breeding species:</p> <p>Whooper swan <i>Cygnus cygnus</i></p> <p>Little egret <i>Egretta garzetta</i></p> <p>European golden plover <i>Pluvialis apricaria</i></p> <p>Bat-tailed godwit <i>Limosa lapponica</i></p> <p>Ruff <i>Calidris pugnax</i></p> <p>Mediterranean gull <i>Larus melancephalus</i></p> <p>The following breeding species:</p> <p>Little tern <i>Sternula albrifrons</i></p> <p>Sandwich tern <i>Sternula sandvicensis</i></p>	<p>Interspecific faunal relations</p> <p>Fishing and harvesting aquatic resources</p> <p>Airports, flightpaths</p> <p>Marine water pollution</p> <p>Changes in biotic conditions</p> <p>Air pollution, air-borne pollutants</p> <p>Changes in abiotic conditions</p> <p>Outdoor sports and leisure activities, recreational activities</p>	<p>Conservation objectives are set for each bird feature for an SPA.</p> <p>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;</p> <ul style="list-style-type: none"> The extent and distribution of the habitats of the qualifying features 	<p>In general, qualifying species of the SPA rely on:</p> <ul style="list-style-type: none"> Habitat connectivity to the wider landscape to allow for migration, dispersal and genetic exchange of species typical of this habitat. Active and ongoing conservation management to protect, maintain or restore the supporting habitats. <p>More specific information has been provided for each qualifying species below:</p> <p>Non-breeding and breeding waterfowl species:</p> <ul style="list-style-type: none"> Habitat: Saltmarsh, mudflats, open water, rocky intertidal habitat, grazing marsh, wet grassland

Site Name	Area (ha)	Qualifying Features	Key Vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying Habitats and/or species depend
		<p>Common tern <i>Sternula hirundo</i></p> <p>The following non-breeding migratory species:</p> <p>Pink-footed goose <i>Anser brachyrhynchus</i></p> <p>Common shelduck <i>Tadorna tadorna</i></p> <p>Northern pintail <i>Anas acuta</i></p> <p>Eurasian oystercatcher <i>Haematopus ostralegus</i></p> <p>Grey plover <i>Pluvialis squatarola</i></p> <p>Common ringed plover <i>Charadrius hiaticula</i></p> <p>Eurasian curlew <i>Numenius arquata</i></p> <p>Black-tailed godwit <i>Limosa limosa</i></p> <p>Ruddy turnstone <i>Arenaria interpres</i></p> <p>Red knot <i>Calidris canutus</i></p> <p>Sanderling <i>Calidris alba</i></p> <p>Dunlin <i>Calidris alpina alpina</i></p> <p>Common redshank <i>Tringa totanus</i></p> <p>Lesser black-backed gull <i>Larus fuscus</i></p> <p>The following breeding migratory species:</p> <p>Lesser black-backed gull <i>Larus fuscus</i></p> <p>European herring gull <i>Larus argentatus argenteus</i></p>		<ul style="list-style-type: none"> ■ 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. 	<ul style="list-style-type: none"> ■ Diet: crustaceans, molluscs, invertebrates, fish, aquatic plants <p>Breeding seabird assemblage:</p> <ul style="list-style-type: none"> ■ Habitat: Coastal lagoons, intertidal habitats, open water, ■ Diet: fish, crustaceans, molluscs

Site Name	Area (ha)	Qualifying Features	Key Vulnerabilities	Conservation Objectives	Non-qualifying habitats and species upon which the qualifying Habitats and/or species depend
		Waterbird assemblage in any season Seabird assemblage in any season			