



The Planning Inspectorate
Yr Arolygiaeth Gynllunio

REPORT ON THE IMPLICATIONS FOR EUROPEAN SITES

Proposed East Yorkshire Solar Farm

An Examining Authority report prepared with the
support of the Environmental Services Team

Planning Inspectorate Reference: EN010143

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1 INTRODUCTION

1.1 Background

- 1.1.1 East Yorkshire Solar Farm Limited (the Applicant) has applied for a development consent order (DCO) under section 37 of the Planning Act 2008 (PA2008) for the proposed East Yorkshire Solar Farm (the Proposed Development). On behalf of the Secretary of State for Energy Security and Net Zero an Examining Authority (ExA) has been appointed to conduct an Examination of the application. The ExA will report its findings and conclusions and make a recommendation to the relevant Secretary of State (SoS) as to the decision to be made on the application.
- 1.1.2 The relevant SoS is the competent authority for the purposes of the Habitats Regulations¹ for applications submitted under the PA2008 regime. The findings and conclusions on nature conservation issues reported by the ExA will assist the SoS in performing their duties under the Habitats Regulations.
- 1.1.3 This Report on the Implications for European sites (RIES) documents and signposts the information in relation to potential effects on European Sites² that was provided within the DCO application and submitted during the Examination by the Applicant and Interested Parties (IPs), up to Deadline 6 (DL6) of the Examination (1 October 2024). It is not a standalone document and should be read in conjunction with the Examination documents referred to. Where document references are presented in square brackets [] in the text of this report, that reference can be found in the Examination Library published on the National Infrastructure Planning website at the following link:
<http://infrastructure.planninginspectorate.gov.uk/document/EN010143-000497>
- 1.1.4 This RIES is issued to ensure that IPs including the Appropriate Nature Conservation Body (ANCB) - Natural England (NE) - are consulted formally on Habitats Regulations matters. This process may be relied on by the SoS for the purposes of Regulation 63(3) of the Habitats Regulations.
- 1.1.5 It also aims to identify and close any gaps in the ExA's understanding of IPs' positions on Habitats Regulations matters, in relation to all European sites and qualifying features as far as possible, in order to support a robust and thorough recommendation to the SoS.

¹ The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations).

² For the purposes of this RIES, in line with the Habitats Regulations and relevant Government policy, the term "European sites" includes Special Areas of Conservation (SAC), candidate SACs, proposed SACs, Special Protection Areas (SPA), potential SPAs, Sites of Community Importance, listed and proposed Ramsar sites and sites identified or required as compensatory measures for adverse effects on any of these sites. For ease of reading, this RIES also collectively uses the term "European site" for 'European sites' defined in the Habitats Regulations 2017 and 'European Marine Sites' defined in the Conservation of Offshore Marine Habitats and Species Regulations 2017, unless otherwise stated. "UK National Site Network" refers to SACs and SPAs belonging to the United Kingdom already designated under the Directives and any further sites designated under the Habitats Regulations.

1.1.6 Following consultation, the responses to the RIES will be considered by the ExA in making its recommendation to the SoS and made available to the SoS along with this report. The RIES will not be revised following consultation.

1.2 Documents used to inform this RIES

1.2.1 The Applicant's Habitats Regulations Assessment Report submitted with the DCO application comprised the following:

- East Yorkshire Solar Farm Habitats Regulations Assessment (application HRAR) [APP-244]

1.2.2 This was updated at DL2 (Rev 01) (DL2 HRAR) [REP2-012] in response to written questions issued by the ExA and matters raised by NE. It included the results of additional non-breeding bird surveys that were undertaken between September 2023 and March 2024 (contained in HRAR Table 12 and Appendix D).

1.2.3 A subsequently updated version of the HRAR (Rev 02) (final HRAR) [AS-038] was provided on 19 September 2024, between DL5 and DL6, that incorporated updated and additional information that had been submitted to the Examination. All references in this RIES to the HRAR are to this version unless stated otherwise.

1.2.4 At DL4 the Applicant submitted a Technical Note (TN) that had been sent to NE, dated 15 August 2024 [REP4-037], that set out calculations of land required for mitigation of effects on bird species, based on the results of the additional surveys undertaken in 2023/24. Between DL5 and DL6 it submitted another TN previously sent to NE, dated 8 July 2024 [AS-045], that responded to a number of comments previously made by NE, particularly in relation to pink-footed goose (PFG), golden plover and lapwing.

1.2.5 The HRAR identified likely significant effects (LSE) on qualifying features of a number of European sites. It concluded that adverse effects on the integrity (AEoI) of all those European sites could be excluded.

1.2.6 The ExA included a number of HRA-related questions seeking additional information and clarifications in the first and second round of written questions [PD-004 and PD-008, respectively], to which responses were received at DL1 and DL4.

1.2.7 In addition to the HRAR, the RIES refers to representations submitted to the Examination by IPs, Statements of Common Ground (SoCGs) and other Examination documents as relevant. All documents can be found in the Examination Library.

1.2.8 Comments on the RIES are timetabled for DL7 (5 November 2024).

1.3 HRA Matters Considered During the Examination

1.3.1 The Examination to date has focussed on the following matters:

- The adequacy of the Applicant's modelling in relation to disturbance distances for bird species;

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- the Applicant's conclusions on LSE and omission of an additional qualifying feature which could also be subject to LSE: the bullhead feature of the River Derwent Special Area of Conservation (SAC);
- the Applicant's approach to assessing in-combination effects due to insufficient information being provided initially;
- the adequacy of the proposed mitigation in relation to the potential loss of functionally linked land (FLL) for qualifying bird features of the Humber Estuary Special Protection Area (SPA) and Ramsar site and Lower Derwent Valley SPA and Ramsar site; and
- the Applicant's conclusions in relation to adverse effects on integrity (AEoI) on the Humber Estuary SPA and Ramsar site and Lower Derwent Valley SPA and Ramsar site in relation to potential effects on otter from temporary loss of/damage to River Derwent SAC habitat during construction; and construction noise disturbance to FLL used by qualifying bird features.

2 LIKELY SIGNIFICANT EFFECTS

2.1 European sites considered

Introduction

- 2.1.1 The Proposed Development is not connected with or necessary to the management for nature conservation of any European site.
- 2.1.2 The Applicant identified European sites within 20km of the application site boundary. It confirmed in the HRAR that there are no European sites designated for bats within 30km of the boundary.

Sites within the UK National Site Network (NSN)

- 2.1.3 The Applicant's HRAR identified 10 European sites within the UK National Site Network (UK NSN) for inclusion within the assessment. These are listed, together with their qualifying features, in Table 4 of Section 4 of the HRAR and are as detailed in Table 2.1 below.

Table 2.1: European sites in the UK NSN identified in the Applicant's HRAR

Name of European site	Distance from Proposed Development (km)
River Derwent SAC	Crossed by the grid connection corridor
Lower Derwent Valley SPA	1.3
Lower Derwent Valley Ramsar site	1.3
Lower Derwent Valley SAC	1.3
Humber Estuary SPA	3.4
Humber Estuary Ramsar site	3.4
Humber Estuary SAC	3.4
Skipwith Common SAC	6.42
Thorne & Hatfield Moors SPA	9.24
Thorne Moor SAC	9.24

- 2.1.4 The locations of these sites relative to the Proposed Development are depicted on Figure 5 in Appendix A of the HRAR.
- 2.1.5 No additional UK European sites have been identified by IPs for inclusion within the assessment in the Examination to date.
- 2.1.6 NE confirmed in REP1-094 that other than the sites and features for which it had raised a specific concern it agreed with the LSE conclusions in the application HRAR. This is reflected in the DL1 SoCG [REP1-075].

2.2 Potential impact pathways

- 2.2.1 Section 4 of the HRAR details the potential impact pathways from the Proposed Development, along with the potential geographical extent of effects (HRAR Table 3). Section 4 Table 6 of the HRAR lists the European sites and the impact pathways which could affect them. The impact pathways relevant to each of the site features are set out in the screening matrices contained in HRAR Appendix B.
- 2.2.2 The HRAR assessed the potential impacts during construction, operation and maintenance and decommissioning. Generally, the same impacts were predicted for decommissioning as construction.

2.3 In-combination effects

- 2.3.1 Section 7 of the HRAR sets out the Applicant's approach to assessing in-combination effects. The projects included in the in-combination LSE assessment are detailed in Table 10 of Section 7 of the HRAR.
- 2.3.2 NE confirmed in its RR [RR-266] that it considered the list of developments in Table 10 to be comprehensive. No additional plans or projects have been highlighted by IPs in the Examination to date.
- 2.3.3 At DL6 the Applicant highlighted [REP6-023] recent information published on 30 September 2024 about plans for Mylen Leah, a solar development approximately 1.8km north of the Proposed Development's Order Limits at its closest point. It had not yet been subject to an Environmental Impact Assessment (EIA) screening or scoping opinion. The Applicant provided a review according to the cumulative effects methodology set out in Environmental Statement (ES) Chapter 5 [APP-057]. Based on the available information, it concluded that there was no potential for cumulative effects to arise from the Proposed Development together with Mylen Leah. The review and conclusion are relevant to the consideration of potential in-combination effects.

2.4 The Applicant's assessment

- 2.4.1 The Applicant's conclusions in respect of screening are presented in Section 6 of the HRAR and summarised in the screening matrices contained in Appendix B of the HRAR (Tables 14 to 20, which are incorrectly identified in the HRAR Table of Contents). A screening matrix was not included in the application HRAR for the Lower Derwent Valley SAC although LSE were predicted from some of the potential impact pathways identified. In response to ExQ1 Q2.1.17 the Applicant provided a screening matrix (Table 15) in the updated HRAR submitted at DL2 (which is not listed in the HRAR Table of Contents).

Sites for which the Applicant concluded no LSE on all qualifying features

- 2.4.2 The Applicant concluded in HRAR Section 4 that the Proposed Development would not be likely to give rise to significant effects, either alone or in

combination with other projects or plans, on all qualifying features of the following European sites:

- Skipwith Common SAC;
- Thorne & Hatfield Moors SPA; and
- Thorne Moor SAC.

2.4.3 These sites were scoped out from further assessment on the basis of their distance from the application site and the absence of potential impact pathways and suitable habitat for their qualifying species. They were not taken forward to the screening stage.

2.4.4 NE confirmed in its RR that it agreed with the Applicant's conclusion of no LSEs in respect of the above European sites [RR-266].

Sites for which the Applicant concluded LSE on some or all qualifying features

2.4.5 The Applicant concluded that the Proposed Development would be likely to give rise to significant effects, either alone or in combination with other projects or plans, on one or more of the qualifying features of the following European sites:

- River Derwent SAC;
- Lower Derwent Valley SPA;
- Lower Derwent Valley Ramsar site;
- Lower Derwent Valley SAC;
- Humber Estuary SPA;
- Humber Estuary Ramsar site; and
- Humber Estuary SAC.

2.4.6 The qualifying features and LSE pathways screened in by the Applicant for the Proposed Development alone are detailed in Section 4 of the HRAR and in its screening matrices contained in HRAR Appendix B. The qualifying sites and LSE pathways screened into the in-combination assessment are identified in HRAR Section 7. Footnote 10 to Table 10 of the HRAR (page 61) states that the qualifying habitats and species for which in-combination LSE cannot be excluded are identified in the screening matrices within Appendix B, and not repeated in Table 10. In-combination effects are not included in either the DL2 HRAR or the final HRAR updated matrices, however Table 10 was updated in the final HRAR to identify the habitats and species for which in-combination LSE could not be excluded.

2.4.7 IPs and the ExA raised questions during the Examination about the omission of consideration of the bullhead feature of the River Derwent SAC. See Section 2.5 of this RIES for further details.

2.5 Examination matters

- 2.5.1 Matters raised in the Examination to date or for which the ExA seeks clarity in relation to LSEs screened out or not considered by the Applicant are summarised in Table 2.2 below.
- 2.5.2 ExQ1 [PD-004] included a number of questions relating to HRA. These included points in relation to the need for additional information and apparent errors and inconsistencies within the HRAR. NE raised issues in its RR relating to particular sites and features [RR-266]. These were reiterated in its WR [REP1-094]. The Applicant responded [REP1-081] to ExQ1 and NE's submissions and addressed them in the updated HRAR provided at DL2. NE provided a response to ExQ1 for DL1 [REP1-094].
- 2.5.3 ExQ2 Q2.0.2 [PD-008] requested an update from the Applicant on HRA matters. The Applicant stated in response [REP4-030] that it was in ongoing dialogue with NE to resolve the outstanding matters and would update the HRA, ES Ecology chapter and the Framework Landscape and Ecological Management Plan (Framework LEMP), if required, once this had been concluded. At the time of writing this RIES, the latest updated versions of these documents are AS-038 (Rev 02), APP-126 (Rev 00) and AS-040 (Rev 03), respectively.

Table 2.2: Issues raised in the Examination to date by the ExA and IPs in relation to the Applicant's screening of LSEs (alone and in-combination)

ID	European site	Details of issue	ExA observation/ question
2.1	Humber Estuary SAC – various impact pathways	<p>ExQ1 Q2.1.3 noted that a number of potential impact pathways were identified for effects on qualifying species of the Humber Estuary SAC in Section 4 Table 6 of the application HRAR. However, only the water quantity, level and flow impact pathway was identified as relevant to the SAC in HRAR Section 5. HRAR Section 6 (Screening for Likely Significant Effects) did not address loss of FLL, atmospheric pollution or introduction of invasive non-native species (INNS) and the SAC screening matrix omitted atmospheric pollution and INNS. The Applicant was asked to confirm which impact pathways applied to the Humber Estuary SAC, to which features and to which phase(s) of the Proposed Development; and to update the HRAR main text and screening and integrity matrices accordingly, including the incorporation of any omitted assessments.</p> <p>The Applicant [REP1-081] responded that Section 5 of the updated HRAR to be submitted for DL2 would correctly identify noise and visual disturbance, water quality, water quantity, level and flow, atmospheric pollution and the introduction of INNS as relevant to the Humber Estuary SAC.</p> <p>LSEs from the introduction of INNS to all European sites (which would include the Humber Estuary SAC) were excluded on the basis of legislative drivers.</p> <p>Loss of FLL had been deleted from Section 4 Table 6 for the SAC on the basis that it was not an impact pathway that would arise from the Proposed Development in relation to this site (since no FLL used by the SAC features will be lost).</p>	Errors and omissions rectified within the updated HRAR submitted at DL2.

		The screening assessment for the SAC in Section 6 had been updated and the SAC screening matrix in Appendix B had been updated with assessment information on atmospheric pollution and the introduction of INNS.	
2.2	In-combination effects assessment	<p>ExQ1 Q2.1.4 noted that where it was determined within the in-combination effects screening assessment contained in Section 7 Table 10 of the application HRAR that in-combination effects may occur, it generally did not identify which European sites and qualifying features may be affected or the phases of the Proposed Development in which the effects could occur. In addition, not all of the AEOI assessments contained in HRAR Section 8 that identified the potential for in-combination effects identified the European sites and features that may be affected.</p> <p>The Applicant [REP1-081] responded that Table 10 in the HRAR to be submitted at DL2 had been updated to identify the phases in which relevant impacts will arise and the European sites potentially impacted. The in-combination AEOI assessments had also been updated to clearly identify the European sites/qualifying features potentially impacted.</p> <p>Table 10 was further updated in the final HRAR to identify the qualifying features.</p> <p>Reference is made in Table 10 to the Lower River Derwent SPA/Ramsar site. The ExA assumes that is an error and should refer to the Lower Derwent Valley SPA and Ramsar site.</p>	<p>N/A</p> <p>Requested information provided in the updated HRARs.</p>
2.3	Omissions and inconsistencies in the screening assessment information	ExQ1 2.1.9 noted that operational water quality LSE (from surface runoff resulting in water pollution) were identified in the screening assessment (application HRAR Section 6.3) for all of the European sites except the Lower Derwent Valley SAC (although the SAC is included in the AEOI assessment for this impact pathway in Section 8.2). Although a reference was	<p>N/A – matter resolved.</p> <p>Requested information and corrections provided in the updated HRAR submitted at DL2.</p>

		<p>made to the need for surface runoff to be managed in the operational phase, no assessment or description of proposed operational mitigation was provided and the conclusion therein (para 8.2.13) referred only to construction and decommissioning.</p> <p>It also identified that HRAR Section 9.1 and the title of Section 9.3 listed operational water quality effects, however they were not addressed there either and the conclusion in HRAR paragraph 9.3.2 omitted reference to this pathway for the Humber Estuary SAC. The relevant Evidence Notes (ENs) to the appropriate assessment (AA) matrices contained in HRAR Appendix C did not describe any operational mitigation.</p> <p>The Applicant responded [REP1-081] that references to operational water quality had been corrected in the updated HRAR to include the Lower Derwent Valley SAC and Humber Estuary SAC. Section 8.2 of the updated HRAR included a more detailed discussion of operational water quality impacts, including information about the proposed Framework Surface Water Drainage Strategy [APP-098] (which was updated for DL1 [REP1-021]).</p> <p>ExQ1 2.1.10 identified that the information contained in HRAR Section 8.4 in relation to LSE arising from the potential loss of FLL in the operational phase on non-breeding greylag goose and golden plover was inconsistent both within that section and with that contained in Section 8, Tables 11 and 12 (incorrectly referenced as Tables 13 and 14).</p> <p>The Applicant responded [REP1-081] that the references to Tables 11 and 12 and paragraph cross-references had been corrected in the updated HRAR to be submitted at DL2.</p> <p>In relation to greylag goose the Applicant explained that an addition had been made to HRAR paragraph 8.4.5 to clarify</p>	
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		<p>that not all of the three reasons for excluding particular species from FLL impacts applied to all of the listed species. impacts to greylag goose were excluded on the basis of biogeographic population patterns (as explained in paragraph 8.4.9 of the HRAR). Greylag goose are included in the AEOI assessment, but no bespoke mitigation for this species was considered to be required, as agreed with NE and reflected in its RR.</p> <p>The population total of golden plover for the Lower Derwent Valley SPA (and resulting percentage records in the wintering bird surveys) had been made consistent throughout the HRAR.</p> <p>A further amendment to the HRAR had been made in relation to PFG, referencing the most recent survey data and specifying that the maximum recorded number in the 2023/24 survey (515 individuals) amounted to 2% of the Humber Estuary SPA qualifying population. The Applicant considered that as mitigation had been proposed despite the PFG population being below 1% of the SPA population (according to previous surveys), this did not materially affect the mitigation requirement.</p>	
<p>2.4</p>	<p>Disturbance to the bullhead feature of the River Derwent SAC</p>	<p>ExQ1 2.1.6 noted that while the bullhead feature, in addition to the river and sea lamprey features of the River Derwent SAC, was mentioned in Section 6.2 of the application HRAR, disturbance LSE were discussed only in relation to lamprey. The Applicant was asked to provide an LSE assessment in respect of disturbance to bullhead. NE similarly noted [RR-266: Ref NE6 and REP1-094] that the River Derwent SAC bullhead feature had not been assessed within HRAR Section 6.2 (Screening) and considered that it should be, as the impacts would not necessarily be the same as for lamprey.</p> <p>The Applicant responded [REP1-081] to ExQ1 2.1.6 that additional text had been added to the HRAR to be submitted at DL2 which included specific discussion of bullhead. It</p>	<p>N/A - matter resolved.</p> <p>Requested information provided in the updated HRAR submitted at DL2.</p>

		<p>considered that the existing assessment of the low acoustical energies associated with horizontal directional drilling (HDD) remained valid as a basis for concluding no LSE in relation to noise disturbance of qualifying fish, including bullhead, which are considered to have similar levels of sensitivity as lamprey. It provided additional information on the sensitivity of bullhead in its DL1 and DL2 responses and within Section 6.2 of the DL2 updated HRAR [REP1-066, REP2-019 and REP2-012, respectively]. It explained that bullhead are most at risk of impacts during their spawning periods (February to June) and as they lack swim bladders, both bullhead and lamprey have low sensitivity to vibration impacts other than those arising within the water column. It noted that bullhead are sedentary and remain in their freshwater habitats throughout the year, indicating that their sensitivity to noise/vibration disturbance shows no temporal variation.</p>	
2.5	<p>Potential impacts to the river lamprey and sea lamprey features of the Humber Estuary SAC; and to the river lamprey, sea lamprey and bullhead features of the River Derwent SAC during construction, including noise disturbance</p>	<p>The Applicant concluded no construction and decommissioning LSE on the river lamprey and sea lamprey features of the Humber Estuary SAC and the river lamprey, sea lamprey and bullhead features of the River Derwent SAC.</p> <p>In respect of the River Derwent SAC and potential disturbance impacts on river and sea lamprey (HRAR Section 6.2), ExQ1 2.1.7 requested that the Applicant provide details of the timings and duration of any potentially disturbing works and relate those to the core migratory periods for those species. NE considered [RR-266: Ref NE6 and REP1-094] that there was insufficient information to rule out LSE and noted the following:</p> <ul style="list-style-type: none"> the HRAR stated in para 6.2.6 that there would not be any works within the river because trenchless technologies, ie HDD, would be used for crossing the River Derwent and River Ouse. The cables would be 5m 	<p>N/A - matter resolved.</p> <p>Additional information provided in the updated HRAR submitted at DL2.</p>

		<p>below the bed of both rivers, with the send and receive pits a minimum of 30m from the edge of the watercourse. NE welcomed the confirmation of the distance buffers to be used but considered that further justification was required of whether these distances would allow noise/vibration from HDD to attenuate to acceptable levels for the relevant fish species; and</p> <ul style="list-style-type: none"> • detail was provided around the migration timings for the lamprey species in HRAR para 6.2.5, however no comparison was made with migration periods and the timings of any potentially disturbing works and no detail provided of how long any of the most disturbing works were anticipated to last. Table 8–12 (page 183) of ES Chapter 8 [APP-060] identified that use of HDD would be avoided in the core fish migration season of September to February and May beneath the River Ouse and River Derwent, unless the depth of the HDD was confirmed to be a minimum of approximately 10m below the riverbed, to avoid noise and vibration effects. However, this information was not included in the HRAR in relation to the River Derwent SAC. NE considered that further justification of whether these measures were sufficient should be provided, including consideration of whether these are mitigation measures (and therefore should be included at AA stage). <p>In relation to distance buffers, the Applicant explained in para 6.2.7 of the DL2 HRAR that a literature review of the vibration disturbance risks associated with HDD was undertaken. It found some evidence for behavioural impacts and physical injury from underwater noise generated by construction activities (typically from pile driving, dredging and seismic surveying) but little to no evidence of harm from substrate</p>	
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		<p>vibration. The likely acoustical energies associated with the Proposed Development were considered highly unlikely to result in any material substrate vibration or associated noise in the water column that would result in behavioural or physical impacts to bullhead and lamprey. As the HDD would be 30m back from the banks and a minimum of 5m below the riverbeds there would be a large volume (approximately 1500m³) of substrate and rock between the HDD and the river laterally; and approximately 1000m³ above the drill. In addition, the drilling would be of short duration, approximately several days.</p> <p>In respect of the timings and duration of any potentially disturbing works and the core migratory periods for river and sea lamprey, the Applicant [REP1-081] responded to ExQ1 Q2.1.7 that details on the duration of disturbing works would be provided in the DL2 HRAR. The exact timings of HDD works were not yet known but the HRAR had been updated to specify that HDD operations beneath the River Ouse and River Derwent would avoid the core fish migration season of September to February and May where practicable. This seasonal restriction had been included in the updated Framework Construction Environmental Management Plan (FCEMP) [REP1-054] submitted at DL1. The updated HRAR included reference to the seasonal restrictions set out in the ES Ecology chapter and the FCEMP, which the Applicant considered reinforced a conclusion of no AEoI.</p> <p>NE [AS-024 and REP3-048] noted that the DL2 HRAR clarified that the HDD process would take place over a short period of time, as stated in the FCEMP [APP-238]; and that further justification had been provided. It concluded that sufficient detail had been provided to rule out impacts on lamprey and</p>	
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		<p>bullhead associated with the River Derwent SAC and/or Humber Estuary SAC.</p> <p>The Applicant confirmed in REP4-029 that the HDD buffers had been added to Table 3 of the updated FCEMP submitted at DL1 [REP1-053].</p> <p>NE reiterated (also in AS-044) that measures intended to avoid impacts on European site features, ie avoidance of the core migration seasons for the designated fish features, should be considered as mitigation. However, it considered that this would not materially impact the conclusions of the AEoI assessment.</p> <p>In Section 5 of the Applicant’s TN dated 8 July 2024 [AS-045] the Applicant explained that the avoidance of the core fish migration season was not a key reason for the conclusion of no LSE but was added to reinforce it. It stated that the conclusion of no LSE was based on a combination of the large volume of intervening rock and soil between the HDD launch pit and the HDD drill itself and the very short duration of HDD. Given this, there was very low risk lamprey or bullhead movements would be disrupted. The Applicant had reordered DL2 HRAR Section 6.2 to clarify the position.</p>	
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2.6 Summary of Examination outcomes in relation to screening

- 2.6.1 The ExA's understanding of the Applicant's and NE's current positions in relation to LSEs is set out above.
- 2.6.2 The Applicant concluded that there would be no LSE on Skipwith Common SAC, Thorne & Hatfield Moors SPA and Thorne Moor SAC. This was not disputed.
- 2.6.3 The ExA and IPs raised issues during the Examination in relation to LSE on other European sites. The Applicant had provided information to address each of these issues by the time of publication of this RIES.

3 ADVERSE EFFECTS ON INTEGRITY

3.1 Conservation Objectives

- 3.1.1 The conservation objectives for all of the European sites for which a LSE was identified by the Applicant at the point of the DCO application were included within the HRAR (Section 4).
- 3.1.2 Information on the condition of the Sites of Special Scientific Interest (SSSIs) that underpin the European sites is provided in Section 4.2 Table 5 of the HRAR.

3.2 The Applicant's assessment

- 3.2.1 The European sites and qualifying features for which LSE were identified were further assessed by the Applicant to determine if they could be subject to an AEoI from the Proposed Development, either alone or in combination. The Applicant's conclusions are presented in Section 8 of the HRAR and summarised in the integrity matrix contained in HRAR Appendix C (Tables 20 to 27, which are incorrectly identified in the HRAR Table of Contents). An integrity matrix was not included in the application HRAR for the Lower Derwent Valley SAC although LSE were predicted from a number of the potential impact pathways identified. In response to ExQ1 Q2.1.17 [PD-004] the Applicant provided an integrity matrix for the SAC (Table 21) in the updated HRAR submitted at DL2.

Mitigation measures

- 3.2.2 The Applicant's HRAR identified mitigation measures in Section 8. These were taken into account in the Applicant's assessment of effects on integrity.
- 3.2.3 Relevant mitigation measures are contained in the FCEMP [REP4-010] and the Framework LEMP [AS-040].

Sites for which the Applicant concluded no AEoI

- 3.2.4 The Applicant concluded that the Proposed Development would not adversely affect the integrity of any of the European sites and features assessed, either alone or in combination with other projects or plans.
- 3.2.5 The Applicant's conclusions in respect of the following European sites were disputed by NE and questioned by the ExA during the course of the Examination (see Section 3.3 of this RIES for further details):
- River Derwent SAC;
 - Lower Derwent Valley SPA;
 - Lower Derwent Valley Ramsar site;
 - Lower Derwent Valley SAC;
 - Humber Estuary SPA;
 - Humber Estuary Ramsar site; and

- Humber Estuary SAC.

3.2.6 By the time of publication of this RIES NE has confirmed it agreed with the Applicant's conclusion of no AEOI in respect of the above European sites [AS-044].

3.3 Examination matters

3.3.1 Matters raised in the Examination to date or for which the ExA seeks clarity in relation to AEOI are summarised in Table 3.1 below.

3.3.2 NE confirmed in REP1-094 that other than the sites and features for which it had raised a specific concern it agreed with the AEOI conclusions in the HRAR. This is reflected in the SoCG [REP1-075].

Table 3.1: Issues raised in the Examination to date by the ExA and IPs in relation to the Applicant's assessment of effects on integrity (alone and in-combination)

ID	European site and issue	Details of issue	ExA observation/question
3.1	Noise and visual disturbance effects on otter (a qualifying feature of the Lower Derwent Valley SAC and the River Derwent SAC)	<p>ExQ1 Q2.1.5 noted that in relation to potential noise and visual disturbance effects on otter, Section 8.1 of the application HRAR explained that the majority of the construction and decommissioning works would be undertaken during daylight hours, apart from occasional works early morning/late evening and potentially some night-time HDD in wintertime. The likely frequency of the nocturnal works was not quantified further, nor cross-reference made to relevant information contained in other application documents.</p> <p>The Applicant responded [REP1-081] that HDD operations would be temporary, with drilling operations typically requiring several days per crossing. The likely duration of potential nocturnal works, eg HDD crossings, had been specifically referenced in the updated HRAR to be submitted at DL2. Reference to other relevant application documents, eg the FCEMP [APP-238], had been included. However, the likely frequency of other nocturnal works and any associated lighting requirements were not yet confirmed. Section 2.3 of the FCEMP defined the core working hours which would generally occur during the day but stated that night-time working may be required due to an emergency or during HDD where the activity needed to be completed as soon as practicable to limit services disruption.</p> <p>NE [AS-024] noted the clarifying comments in the DL2 HRA regarding the suitability of drainage channels DE03,</p>	<p>N/A</p> <p>No AEoI agreed between the Applicant and NE.</p>

		<p>DE52, OU13, OU20, and OU24 as otter habitat. It agreed that the lack of otter presence in these watercourses, predicted short duration of HDD and use of drilling in the daytime rather than at night should be sufficient in managing impacts. It considered that noise barriers should still be used on the HDD sites adjacent to watercourses with recorded otter presence, in addition to all other mitigation previously established. Night-time use of HDD should be minimised and only occur in instances when 24-hour working was unavoidable, to avoid disturbance to otter nocturnal activities. Assuming these measures would be implemented NE considered that these issues were resolved.</p>	
3.2	<p>Securing of mitigation activities to be undertaken by landowners</p>	<p>ExQ1 Q2.1.13 noted that paragraph 8.4.22 of the application HRAR stated that a 'master spreadsheet' would detail the future cropping rotations within the 'Goose Mitigation Zone' and would accompany a legal agreement with the relevant landowners (in relation to the mitigation activities they would undertake). No additional information was provided on the level of engagement or agreement to-date with the relevant landowners; and the Framework LEMP [APP-246], which contains the proposed measures, made no reference to the spreadsheet or legal agreement(s).</p> <p>The Applicant responded [REP1-081] that the Framework LEMP [APP-246] set out broad principles regarding the provision of ecological mitigation, including with regard to FLL loss. A reference to the requirement for a master spreadsheet detailing the cropping rotation within the Goose Mitigation Zone had been included in an updated version of the Framework LEMP [REP1-063]. A final and more detailed LEMP would</p>	<p>N/A</p> <p>The updated Framework LEMP includes additional information in relation to the cropping regime.</p>

		<p>be produced post-consent and pre-commencement of construction works, which is secured by Requirement 6 (R6) of the dDCO [AS-008]. Precise details on the cropping schedule and engagement/level of agreement with landowners would be provided at that stage.</p> <p>Para 8.4.19 of the DL2 HRAR [REP2-012] included an additional statement that the establishment and long-term management of Ecology Mitigation Areas 1g and 1h were defined within and secured by the Framework LEMP. It additionally stated that the Goose Mitigation Zone in Area 1h was used by PFG feeding on the stubble throughout December 2023 with up to 800 individuals present. It is considered by the Applicant that this suggested that the location is suitable and could be cropped in a manner to yield suitable foraging habitat for the species. Through sympathetic management for PFG, ie spilling more grain at harvest and leaving stubble in the ground for longer, the mitigation area could deliver longer term benefits for PFG.</p>	
3.3	2023/2024 passage/wintering period bird surveys	<p>ExQ1 2.1.14 requested that the bird surveys for the 2023/2024 passage/wintering period were submitted to the Examination (that may potentially result in changes to the HRAR/matrices and the proposed mitigation).</p> <p>The Applicant responded [REP1-081] that the data for the 2023/24 passage/wintering bird surveys was included in Appendix D of an updated HRAR to be submitted at DL2, which includes monthly peak counts, general observations on recorded bird flocks and more detailed comments on selected target species.</p>	<p>N/A</p> <p>The surveys were included in Appendix D and commentary provided in Section 8.4 of the updated HRAR provided at DL2 [REP2-013].</p>

<p>3.4</p>	<p>Potential loss of FLL for the relevant qualifying bird features of the Humber Estuary SPA and Ramsar site and Lower Derwent Valley SPA and Ramsar site during construction and operation.</p>	<p>NE agreed [RR-266: Ref NE1] with the Applicant that mitigation would be needed to avoid AEOI on the Humber Estuary SPA and Ramsar site and Lower Derwent Valley SPA and Ramsar site during construction and operation. As bird surveys for the 2023/2024 passage/wintering period were ongoing (and resulting updates in respect of mitigation may be made to the HRA and Framework LEMP) NE could not yet confirm if they agreed that the proposed mitigation (ie, within the Ecology Mitigation Areas) within the HRA and Framework LEMP would be sufficient to avoid AEOI. NE would submit more detailed advice on the proposed mitigation measures, including more specific advice around the size of the areas; carrying capacity; habitat management; and any remediation measures, later in the Examination. NE confirmed that, as detailed in the application HRAR para 8.4.17, the habitat must be established prior to commencement of construction works in the closest parts of the Proposed Development (to the Mitigation Zones) and should be specifically secured within the DCO and in perpetuity and at least for the lifetime of the Proposed Development.</p> <p>It agreed with the criteria for identifying suitable mitigation land included in para 8.4.15 of the application HRAR, such as limiting surrounding hedgerows and woodland and situating it as far away as practicable from roads and built-up areas to facilitate long-distance views for birds and reduce disturbance. It advised that an undeveloped/undisturbed 150m buffer around the mitigation areas should be secured to ensure this.</p> <p>The Yorkshire Wildlife Trust (YWT) raised concerns [REP1-097] about the accuracy of the 2022/2023 survey</p>	<p>N/A</p> <p>No AEOI agreed between the Applicant and NE.</p>
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		<p>data for wintering birds and the need for the DCO to secure monitoring of the mitigation areas; and requested that the habitat creation proposed was secured in perpetuity.</p> <p>In [REP1-081] the Applicant stated that as a result of the updated non-breeding bird data (2023/24) (particularly the size of the fields in which peak counts of PFG and golden plover were recorded), the entirety of the proposed Golden Plover Mitigation Zone (28.75ha) would be managed to mitigate FLL loss, instead of the 15ha previously proposed. This reflected the larger bird abundances/field sizes occupied recorded in the 2023/24 surveys than the previous surveys. It considered that this did not alter the overall size of the Mitigation Zone required as the area proposed was larger than the minimum area required.</p> <p>The Applicant confirmed in [REP1-066] and [REP2-019] that the 2023/2024 non-breeding bird survey data had been provided to NE and was included in the DL2 HRAR (Appendix D). It considered that the data supported the HRAR conclusions that the use of the land was opportunistic and variable for most qualifying species, with numbers exceeding 1% of the SPA population being recorded occasionally within the Solar PV areas during the two years of survey. It considered that the data also confirmed that the overall area identified for habitat offsetting (within Ecology Mitigation Areas 1g and 1h on the north-west part of the application site) for golden plover and PFG (109ha in total, within which 28.75ha of golden plover habitat and 15ha for PFG would be maintained in any year) would deliver sufficient mitigation habitat.</p>	
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		<p>An updated Framework LEMP [REP1-063] was submitted at DL1 to reflect the need for the entirety of the Golden Plover Mitigation Zone to be managed annually for the species. The Framework LEMP had also been updated to confirm that the Ecology Mitigation Areas and the management of habitat within those would be established prior to commencement of construction works and would be maintained for the lifetime of the Proposed Development until the commencement of decommissioning, as defined by dDCO Schedule 2 R18 [REP1-006] (after which it would be handed back in its arable form to the relevant landowner). The Applicant, in [REP2-019], considered that it was unnecessary and inappropriate to require the mitigation land to be secured in perpetuity, as it would no longer be required to mitigate the effects of the Proposed Development and would unduly and unfairly prejudice the landowner's ability to use the land, including for agricultural purposes.</p> <p>In the Applicant's draft SoCG with NE [REP1-075] it stated that a 150m buffer around the Mitigation Zones was unnecessary. This was on the basis that the large, contiguous nature of those Zones would allow adequate foraging and roosting space for both golden plover and PFG within the centre of the fields and away from boundary features and adjoining Solar PV Areas, thereby creating a sufficient 'in-field' buffer to ensure usage and minimise any potential displacement.</p> <p>The Applicant provided NE with a TN dated 8 July 2024 [AS-045] that addressed the 2023/2024 wintering bird survey results and the adequacy of the proposed mitigation areas.</p>	
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		<p>NE [REP3-048] noted that the results of the 2023/2024 surveys returned significantly higher peak counts of PFG, lapwing and golden plover than those recorded in the 2022/2023 surveys. It considered that further assessment was required to determine whether the proposed Mitigation Zones (15ha for PFG and 28.75 for golden plover/lapwing) would provide sufficient mitigation for potential effects on these species.</p> <p>In relation to PFG, NE considered that the highest peak count (for all land being used by PFG within the application site boundary, not just the Solar PV areas) should be used to calculate the percentage of the European sites' populations that could be affected and to inform the Mitigation Zone parameters. It noted that the Applicant had used a 'minimum field size', rather than a peak population count or 'bird-days' approach, to determine the required mitigation land requirements. Given the increase in bird numbers found in the 2023/2024 surveys, NE considered that the Applicant should reconsider the appropriateness of that approach.</p> <p>NE noted that the TN stated that the mitigation land for GP and lapwing would also be of foraging value to PFG, with which it agreed in principle but requested further assessment.</p> <p>It is stated in the Framework LEMP that approximately 79.09ha of Ecology Mitigation Areas 1g and 1h would remain in arable rotation, with 15ha of that managed towards the requirements of PFG in any given year. NE considered that further assessment was needed of whether the 15ha would be able to feed geese throughout the season in the same way as currently. As different crops would be likely to become available over</p>	
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		<p>the season on different fields, information was needed on how this would be replicated in the Ecology Mitigation Areas and whether 15ha would be sufficient to achieve this. It was currently proposed to leave stubble fields in the 15ha, which would last only for the beginning of the winter. Although other fields were likely to be planted with winter cereals there was no certainty around that and therefore no certainty that the geese would be fed in the later parts of the season. NE noted that it was evident from survey data that PFG use the site throughout the winter. Confirmation was needed of whether winter cereals would continue to be planted and further details or a schedule of the crop rotation planned outside of the 15ha should be provided. NE would welcome the provision of a master spreadsheet (as detailed in Framework LEMP para 6.1.94), that would be created as part of the detailed LEMP and would specify future cropping regimes within the mitigation area.</p> <p>In respect of golden plover NE welcomed the increase in the Mitigation Zone from 15ha to 28.75ha but requested clarification whether the 28.75ha excluded a (150m) buffer next to the field edges or was the total usable area. The Applicant stated in the TN that due to the Mitigation Zone being on the edge of the Order Limits and that not all boundaries align with the Solar PV areas a 150m blanket buffer was not required. It also stated that as the panels were not considered disturbing, the 150m distance would only be implemented for disturbing elements of the infrastructure, such as field stations. NE considered that if 150m was considered over-precautionary, evidence should be presented to show that birds would use areas of the fields within 150m of</p>	
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		<p>the panels. If no evidence was available a 150m buffer should be used.</p> <p>In relation to lapwing NE noted that despite the peak count increase in bird numbers found in the 2023/24 surveys, the HRAR and Mitigation Zone design had not been updated to specifically assess the requirement to mitigate for impacts on lapwing. It noted that lapwing have the same habitat requirements as golden plover and will compete for the same invertebrate food, so considered that further justification was required that 28.75ha would produce enough prey to provide for the combined peak numbers of both lapwing and golden plover.</p> <p>The Applicant, in REP4-029, responded that in relation to PFG, golden plover and lapwing it had now undertaken 'bird day' calculations (contained in a second TN [REP4-037] sent to NE) as an alternative to the maximum field size approach originally used. It considered that the calculations demonstrated that the quantity of mitigation land proposed was sufficient to provide for all of these species and drew attention to the additional information on the Mitigation Zones provided to NE in the first TN [AS-045].</p> <p>In its additional submission made between DL5 and DL6 [AS-044] NE concluded that, based on post-DL3 discussion and additional information provided by the Applicant, sufficient additional assessment had been provided by the Applicant to rule out AEOI of the Humber Estuary SPA and Ramsar site and the Lower Derwent Valley SPA and Ramsar site, subject to all relevant mitigation measures being secured.</p>	
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		<p>It noted that the Applicant had carried out additional assessment around the carrying capacity of the proposed Mitigation Zones for PFG, golden plover/lapwing using a bird-days approach.</p> <p>In relation to PFG, NE noted that the revised assessment was based on the highest peak number of individuals recorded and that the August 2024 TN [4-037] clarified how 15ha of a total 79.09ha would be managed to target the months in which PFG were found on the application site (October to December). It considered that would be adequate and that the Applicant had demonstrated that Ecology Mitigation Areas 1g and 1h (15ha of which would be managed on a rotational basis) would have adequate carrying capacity for PFG.</p> <p>NE highlighted that density of PFG on sugar beet fields (as recorded in published studies) was used for the purposes of the bird-days calculations although the Applicant was proposing to feed geese on stubble and associated split-grain. It noted that as sugar beet has higher energy content than stubble the calculation may not be representative of the Mitigation Zone required but understood that an accurate value for stubble and split grain was not available. It concluded that as the calculation demonstrated that an area of 12.16ha would be required and the Applicant was proposing 15ha, together with the potential for PFG to graze some of the lapwing and golden plover Mitigation Zones, the total provision was sufficient.</p> <p>In respect of golden plover and lapwing, NE considered that the Applicant's updated bird-days calculations demonstrated that the Golden Plover Mitigation Zone (28.75ha) would be able to incorporate a 150m buffer</p>	
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		<p>next to the field edges and the remaining area of 26.3ha would be adequate to support the peak numbers of golden plover and lapwing.</p> <p>NE considered that Ecology Mitigation Areas 1g and 1h must be secured through the DCO (Schedule 2, R6) for at least the lifetime of the Proposed Development. It commented that the HRA and Framework LEMP should be updated to incorporate all relevant additional information received during the Examination relating to assessment of and mitigation of impacts on wintering/passage birds associated with these European sites (eg, additional bird-days calculations and management/monitoring regimes).</p> <p>The Applicant provided an updated HRAR [AS-038) and updated Framework LEMP [AS-040] between DL5 and DL6 that incorporated the additional information.</p> <p>In relation to YWT's comments [REP1-097] about monitoring of the mitigation areas, Section 7.2 of the Framework LEMP [AS-040] provides details of the proposed monitoring arrangements.</p>	
2.6	<p>Potential in-combination impacts on the European sites considered in the HRA.</p> <p>(C) and (O)</p>	<p>NE commented in [RR-266] (Ref NE9) that the application HRA did not provide a sufficient in-combination effects assessment and that further in-combination assessment was required for the following identified impact pathways:</p> <ul style="list-style-type: none"> • loss of FLL during construction and operation (Humber Estuary SPA/Ramsar site and Lower Derwent Valley SPA/Ramsar site); • noise and visual disturbance to FLL during construction (Humber Estuary SPA/Ramsar site and Lower Derwent Valley SPA/Ramsar site); 	<p>N/A</p> <p>No AEOI agreed between the Applicant and NE.</p>

		<ul style="list-style-type: none"> • noise impacts to any designated sites if there was potential for timing overlaps during construction; • water quality (River Derwent SAC); and • atmospheric pollution (dust) (River Derwent SAC). <p>The Applicant [REP1-066, REP2-012 and REP2-019] responded that the HRAR submitted at DL2 provided additional information on the in-combination effects assessment.</p> <p>NE agreed [AS-024 and REP3-048] that on the basis of the additional information provided in the DL2 HRAR an AEoI arising from the following in-combination effects could be ruled out:</p> <ul style="list-style-type: none"> • noise disturbance to FLL used by SPA/Ramsar birds; • noise disturbance to otter; • water quality impacts; and • atmospheric pollution (dust). <p>NE stated in its commentary in [REP3-048] that in-combination noise effects could be ruled out but did not explicitly refer to visual disturbance effects. However, it identified noise/visual effects together as an impact pathway; and identified the need for further information/assessment only in relation to in-combination effects from loss of FLL. The DL3 SoCG [REP3-025] recorded that NE agreed that all of the above issues, including visual disturbance, had been resolved except the loss of FLL.</p> <p>In relation to the in-combination loss of FLL, NE considered that further information/assessment was required and stated that it would advise further once it</p>	
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		<p>considered that the assessment of impacts on FLL from the Proposed Development alone was complete.</p> <p>The Applicant noted [REP4-029] that NE's request for further information about in-combination effects on FLL was linked to the resolution of the potential loss of FLL for the relevant qualifying bird features of the Humber Estuary and Lower Derwent Valley SPAs and Ramsar sites from the Proposed Development alone (NE Ref NE1). It considered that once NE's concerns about NE1 had been addressed NE would be able to determine that in-combination effects on FLL had also been addressed.</p> <p>NE confirmed [AS-044] between DL5 and DL6 that it was confident that the proposed mitigation would adequately mitigate all loss of FLL resulting from the Proposed Development and that as there would be no residual effects there would therefore be no in-combination effects. It agreed that that effects on bird species during construction and operation resulting from the potential in-combination loss of FLL could be ruled out.</p>	
3.5	Noise and visual disturbance during construction to FLL for the relevant qualifying bird features of the Humber Estuary SPA and Ramsar site and Lower Derwent Valley	<p><u>Noise</u></p> <p>NE [RR-266: Ref NE2] did not agree no AEoI on the Humber Estuary SPA and Ramsar site and Lower Derwent Valley SPA and Ramsar site. NE considered it was not possible to ascertain that the proposal would not result in AEoI as the assessment contained insufficient information and/or certainty to justify the conclusion and that further assessment/consideration of mitigation options was required:</p> <ul style="list-style-type: none"> • HRAR Section 8.1.3 refers to the Institute of Estuarine and Coastal Studies (IECS) 2013 toolkit ('Waterbird disturbance mitigation toolkit') in relation to setting a disturbance distance (of 	<p>N/A</p> <p>No AEoI agreed between the Applicant and NE.</p>

	<p>SPA and Ramsar site (C)</p>	<p>200m) for bird species. NE did not support its use as it did not consider that the evidence had been collected in a rigorous way and the results had not been peer reviewed. Therefore, any assessment that relied on the toolkit may be inaccurate.</p> <ul style="list-style-type: none"> • NE welcomed the inclusion of Figure 6 in the HRAR which demonstrates modelled LAeq construction noise contours across the site, and how noise is predicted to attenuate. It noted that based on the information provided therein and in the Noise and Vibration assessment [APP-063] and Baseline Noise Survey [APP-106], it appeared that construction noise would result in potentially significant exceedances of the recorded baseline levels (ranging from 43-58dB) at many of the receptor points. It commented that despite the potential suitability of adjacent arable fields to the site as habitat for SPA/Ramsar site birds, Figure 6 did not put exceedances into context of the birds present or utilising the area or provide detail about timings of works/type of works planned at any given time. Such information was required to further determine if noise levels are likely to be disturbing to SPA/Ramsar site birds. NE suggested this would be best provided through an overlay map containing the above detail, to help determine which birds were likely to be impacted by increased noise during construction. • NE noted that was no discussion in the HRAR around possible mitigation options for noise disturbance, despite potentially significant increases in comparison to background noise 	
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		<p>levels. It considered that further assessment was required of how mitigation, including measures such as noise fencing, might reduce noise impacts.</p> <ul style="list-style-type: none"> • It commented that the results of the additional wintering bird surveys (2023/2024) could also affect the outcome of the noise assessment and should also be considered in this context once available. <p>NE agreed that construction noise impacts to the mitigation areas proposed for effects on FLL could be ruled out, subject to the mitigation measures being secured prior to the commencement of construction works for the main site.</p> <p><u>Visual disturbance</u></p> <p>NE agreed with the conclusion set out in HRAR para 8.1.19 that there would be no AEOI on these sites from visual disturbance on FLL during construction, subject to appropriate mitigation being secured prior to commencement of construction works.</p> <p>The Applicant confirmed [REP1-066 and REP2-019] that reference within the application HRAR to the Waterbird disturbance mitigation toolkit and to 200m as a general noise disturbance distance had been deleted from the DL2 version of the HRAR. It had not relied on the distances set out in the toolkit for the noise assessment and instead had used bespoke modelling. Paragraph 8.1.39 of the HRAR refers to the use of 300m as a screening distance for disturbance effects. The updated HRAR submitted for DL2 contained an updated version of Figure 6, with the bird data overlaid.</p>	
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		<p>In relation to mitigation the Applicant's view remained that, other than measures proposed for HDD, specific noise mitigation is not required. It considered that the opportunistic nature of bird use of the affected fields indicated that the birds were not particularly wedded to specific fields but used fields throughout the FLL around the SPAs as and when it was available and suitable, moving to other fields if a given field was unsuitable at a particular time. The fields surrounding the PV area would be subject to comparable disturbance through normal farming operations in adjacent land or be temporarily unsuitable as part of routine farming use of the landscape. As a result of the opportunistic use of these fields it would be difficult to identify where measures such as noise fencing would need to be located as the birds are present on some occasions and absent on others that cannot be predicted.</p> <p>Following the Applicant's update, including additional justification, to the HRAR submitted at DL2, NE agreed [AS-024 and REP3-048] that potential noise disturbance effects on FLL could be ruled out if, as set out in para 8.4.18 of the HRAR, the habitat in Ecology Mitigation Areas 1g and 1h was established prior to the commencement of construction works; and any construction works in the closest parts of the application site to the Mitigation Areas would be undertaken first to minimise any potential for noise disturbance.</p> <p>The Applicant responded [REP4-029] that the above mechanisms were already committed to and included in paragraph 6.1.78 of the Framework LEMP submitted at DL1 [REP1-063].</p>	
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		<p>NE advised [AS-044] that aspects of the noise assessment had not been undertaken in line with its recommendations and the evidence base could be strengthened. It noted that HRAR para 8.1.6 states that there is little observable effect on birds from noise below 55dB L_{Amax}, and that as L_{Aeq} is always lower than L_{Amax}, 55dB L_{Aeq} would be used as the threshold to identify FLL affected by construction activity. NE considered that noise contours are useful for both L_{Aeq} and L_{Amax} as they present different information; consideration of L_{Aeq} only is not precautionary and it is lower because it is an average. A point on the 55dB L_{Aeq} contour can sometimes experience noises louder than 55dB so may result in disturbing levels of noise at certain times. By only providing average noise contours it is not possible to determine whether there would be sudden, loud noises that are the most likely to be disturbing to birds. Notwithstanding, NE considered that such additional evidence would not have a material impact on the outcome of the assessment.</p>	
3.6	<p>Potential impacts on the otter feature of the River Derwent and Lower Derwent Valley SACs during construction, including from (HDD) (C)</p>	<p>NE welcomed [RR-266: Ref NE5] the inclusion of a HDD buffer to minimise disturbance to the River Derwent SAC and Lower Derwent Valley SAC species but noted apparent inconsistencies with the specified buffering distance between different application documents. It understood that a 30m buffer would be utilised to prevent impacts on the River Derwent SAC.</p> <p>It welcomed HDD as a measure for mitigating impacts on waterways in which there could potentially be otter, however it considered that further information should be provided as to why watercourses DE52, DE03 and OU24 had not been considered for HDD. Each of these</p>	<p>N/A No AEoI agreed between the Applicant and NE.</p>

		<p>waterways had been scoped in for suitability as otter habitat (as stated in the Riparian Mammal Survey Report [APP-093]) and would be directly crossed by the grid connection corridor, potentially resulting in significant disturbance. Due to the suitability of OU20, OU24 and OU13 for otter, it considered that noise barriers should be used to avoid disturbance of these waterways during any adjacent construction phase activities.</p> <p>The Applicant responded [REP1-066] that the text was consistent between application documents. The buffering distance for watercourses would be 10m except for the River Derwent, River Ouse and watercourse DE53 (for which it would be 30m). These distances would be secured within the CEMP, along with noise mitigation and timing of the works.</p> <p>Watercourses DE52, DE03, OU13, OU20 and OU24 were all identified in surveys as suitable for dispersal only, rather than for resting places or holts. Evidence of otter use was only found along DE53, the River Ouse and the River Derwent. Since the crossing works would be short-term and typically undertaken mainly during the day (whereas otter generally move at night) the Applicant considered that there was no requirement for HDD or to provide noise fencing as mitigation.</p> <p>It pointed out that the need to secure buffers for HDD activities in relation to specific watercourses was addressed in Tables 3 and 4 of the FCEMP, updated at DL1 [REP1-053], to provide further clarity. Table 3 of the FCEMP was also updated to include the need for details to be set out in the detailed CEMP of where HDD would occur in relation to SAC boundaries, following completion of the Hydraulic Fracture Risk Assessment</p>	
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		<p>(HFRA). It highlighted that noise mitigation measures were set out in Table 7 and reference to temporary noise mitigation fencing for otter was made in paragraph 2.5.2 and Table 3 of the FCEMP.</p> <p>Following the update to the HRAR as submitted at DL2 about the suitability of drainage channels DE03, DE52, OU13, OU20, and OU24 as otter habitat; lack of otter presence in these watercourse; predicted short duration of HDD; and drilling occurring during the daytime, NE agreed [AS-024 and REP3-048] that these measures should be sufficient in managing effects on otter. It considered that noise barriers should still be used on the HDD sites adjacent to watercourses with recorded otter presence in addition to all other mitigation proposed. It reiterated that night-time use of HDD should be minimised and only occur in instances when 24/hour working was unavoidable, to avoid disturbance to otter nocturnal activities. Assuming the above measures were implemented NE were content that this matter was resolved.</p> <p>The Applicant confirmed [REP4-029] that the water quality mitigation measures were secured through Table 4 of the FCEMP [REP3-010], with which the detailed CEMP must be substantially in accordance with according to dDCO Schedule 2, R11 [REP3-004]. In relation to HDD, the measures in the FCEMP included requirements for site-specific groundwater risk assessment prior to commencing work, application of stated buffers around watercourses and flood defences, the need for a HFRA, monitoring of the drilling path and use of water-based drilling fluids. These would be expanded upon in the detailed CEMP. The water management plan would be an</p>	
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		appendix to the detailed CEMP, as secured by dDCO R11.	
3.7	Impacts on otter from temporary loss of/damage to River Derwent SAC habitat (that may be used by otter) during construction	<p>NE noted [RR-266: Ref NE7] that the application HRAR (para 8.5.2) stated that the verge habitat within the SAC that would be temporarily removed for a construction access track was considered part of the SAC's wider site fabric (which is not essential for the SAC to achieve its conservation objectives) and therefore concluded no AEoI. NE considered that as the vegetated banks are supporting habitat for otter there was potential for AEoI if it was not fully restored. It considered that the HRAR must confirm that a restoration plan for the removed vegetation would be undertaken and the plan must be developed prior to commencement of development and secured within the DCO. It could be included within the final LEMP.</p> <p>The Applicant clarified [REP1-066, REP2-019 and REP2-012] that the affected area was not part of the watercourse banks but comprised a grass verge and was a path-side verge on the southern boundary of the field. The otter survey recorded no evidence of otter along ditch DE21. Regardless, the affected area would be restored following the works. A separate habitat restoration plan for the affected area was not considered necessary; details of the restoration works had been added to the Framework LEMP submitted at DL1 [REP1-063] and included measures to reinstate the habitat to full ecological functionality.</p> <p>On the basis of the confirmation provided in the DL2 HRAR that a restoration plan for verge habitat would be included in the Framework LEMP and that there was no evidence of otter using Ditch DE21, indicating it was not</p>	<p>N/A</p> <p>No AEoI agreed between the Applicant and NE.</p>

		<p>supporting habitat for otter, NE considered the issue resolved [AS-024 and REP3-048]. It noted that the restoration plan for the removed vegetation within the River Derwent SAC must be secured within the DCO and could be included within the final LEMP. The HDD buffers proposed in relation to specific watercourses should be established within the CEMP. Specific details regarding where HDD is to occur in relation to the SAC should be included within the CEMP and secured within the DCO. The Applicant reiterated [REP4-029] and referenced its response to NE's RR-266 made within its REP1-066, which addressed NE's points.</p>	
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3.4 Summary of Examination outcomes in relation to adverse effects on integrity

- 3.4.1 All of the matters relating to potential AEOI of the European sites identified within the Applicant's HRAR have been resolved. NE identified within its DL6 submission [AS-044] a small number of outstanding minor concerns about the Applicant's methodology, however it confirmed that these did not affect its view of the Applicant's conclusions. There are no outstanding points of dispute for HRA matters between the Applicant and any other IP.

4 CONCLUDING REMARKS

- 4.0.1 This RIES is based on information submitted throughout the Examination by the Applicant and IPs up to DL6 (1 October 2024) in relation to potential effects on European sites. It should be read in conjunction with the Examination documents referred to throughout.
- 4.0.2 Comments on this RIES must be submitted at DL7 (5 November 2024).