

Date: 30 September 2024
Our ref: 485978
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Dear Inspector,

NSIP Reference Name / Code: EN010140

Title: Natural England's comments in respect of the Helios Renewable Energy Project, promoted by Enso Green Holdings D Limited.

Examining authority's submission deadline 30 September 2024.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

For any further advice on this consultation please contact the case officer Laura Tyndall [REDACTED] [@naturalengland.org.uk](mailto:[REDACTED]@naturalengland.org.uk) and copy to consultations@naturalengland.org.uk.

Yours faithfully,

Laura Tyndall
Higher Officer – Sustainable Development
Yorkshire and Northern Lincolnshire Area Team

Natural England's Relevant Representations

PART I: Summary and Conclusions of Natural England's advice (starting on page 3).

PART II: Natural England's detailed advice (starting on page 8)

PART III: Natural England's detailed comments on the Development Consent Order (DCO) (starting on page 39)

Annex 1: Annex C - Passage and wintering bird surveys for functionally linked land associated with the Humber Estuary and/or Lower Derwent Valley designated sites (Version 1.1, December 2021) (starting on page 40)

Summary of Natural England's Advice

Natural England considers that the Applicant has provided insufficient evidence and is not yet satisfied that the following issues have been addressed;

- **Internationally designated sites**
 - Potential loss of functionally linked land (FLL) for SPA / Ramsar birds.
 - Potential noise disturbance during construction to FLL for SPA / Ramsar birds.
 - Operational impacts to FLL for SPA / Ramsar birds.
 - Potential air quality impacts from construction traffic.
 - In-combination impacts

- **Nationally designated sites**
 - Overlapping internationally designated site impacts for the relevant SSSIs.
 - Potential air quality impacts from construction traffic.

- **Soils and best and most versatile agricultural land**
 - Aspects of the outline Soil Management Plan (oSMP)

Part I: Summary and Conclusions of Natural England's advice

1.1 Natural England's advice in these relevant representations is based on information submitted by Enso Green Holdings D Limited (*the Applicant*) in support of its application for a Development Consent Order ('DCO') in relation to Helios Renewable Energy Project (*the project*).

1.2 Part I of these representations summarises what Natural England considers the main issues¹ to be in relation to the DCO and indicate the principal submissions that it wishes to make at this point. Natural England will develop these points further as appropriate during the examination process. It may have further or additional points to make, particularly if further information about the project becomes available.

1.3 Our comments are set out against the following sub-headings which represent our key areas of remit:

- Internationally designated sites
- Nationally designated sites
- Protected species
- Soils and best and most versatile agricultural land
- Biodiversity net gain

1.4 Our comments are flagged as red, amber, yellow, green or grey:

Red are those where there are fundamental concerns which it may not be possible to overcome in their current form.

¹ PINS NSIP Advice Note 11 Annex C sets out Natural England's role in infrastructure planning.

https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/10/PINS-Advice-Note-11_AnnexC_20150928.pdf

Amber are those where further information is required to determine the impacts of the project and allow the Examining Authority to properly undertake its task and/or where further information is required on mitigation/compensation proposals in order to provide a sufficient degree of confidence as to their efficacy.

Yellow are those where Natural England does not agree with the Applicant's position or approach. We would ideally like this to be addressed but are satisfied that for this particular project it is unlikely to make a material difference to our advice or the outcome of the decision-making process. However, we reserve the right to revise our opinion should further evidence be presented. It should be noted by interested parties that whilst these issues/comments are not raised as significant concerns in this instance, it should not be understood or inferred that Natural England would be of the same view in other cases or circumstances.

Green are those which have been successfully resolved (subject always to the appropriate requirements being adequately secured).

Grey are notes for Examiners and/or competent authority.

- 1.5 Natural England has been working with Enso Green Holdings D Limited to provide advice and guidance on the Helios Renewable Energy project since March 2023 through Natural England's Discretionary Advice Service. We note however that Natural England's most recent work with the Applicant through DAS was on 26 April 2024, and we have received no engagement through the service following this. Natural England will be happy to attend meetings with the Developer, or engage through written advice, with a view to progressing Statements of Common Ground as part of the Examination process and to try to resolve outstanding issues ahead of the Examination.
- 1.6 Part I of these representations provides an overview of the issues and a summary of Natural England's advice. Section 2 identifies the natural features relevant to this application. Section 3 summarises Natural England's overall view of the application and the main issues which it considers need to be addressed by the Secretary of State.
- 1.7 Part II of these representations sets out all the significant issues which remain outstanding, and which Natural England advises should be addressed by Enso Green Holdings D Limited and the Examining Authority as part of the examination process in order to ensure that the project can properly be consented. These are primarily issues on which further information would be required in order to allow the Examining Authority properly to undertake its task or where further work is required to determine the effects of the project and to develop mitigation proposals and to potentially consider compensation proposals to provide a sufficient degree of confidence as to their efficacy.
- 1.8 Natural England will continue discussions with Enso Green Holdings D Limited. to seek to resolve these concerns and agree outstanding matters in a Statement of Common Ground. Failing satisfactory agreement, Natural England advises that the matters set out as 'amber' issues in Part I and II will require consideration by the Examining Authority as part of the examination process.
- 1.9 The Examining Authority may wish to ensure that the matters set out in these relevant representations are addressed as part of the Examining Authority's first set of questions to ensure the provision of information early in the examination process.
- 1.10 Due to the extensive documentation submitted for review within the consultation period, in addition to resource constraints within the team, Natural England has prioritised detailed review of key documents and associated figures, including Appendix 8.2 Ornithological Survey Report [APP-145] and the Appendix 8.9 Information to Inform HRA (hereafter 'the HRA') [APP-151]. Therefore, we

may have additional comments to make in our Written Representations, for example if relevant information has not been included in the HRA document.

2. The natural features potentially affected by this application

Please note that for each of the below issues, we have included the Natural England 'key issue' reference used in the detailed advice section (Part II), to make it easier to cross-reference where necessary. This reference begins with 'NE' and then includes a number; and will be highlighted in bold for each issue.

Internationally designated sites

Our position regarding impacts on internationally designated sites is summarised below. Further detail on our reasoning for this is given against each impact pathway within Part II.

Natural England is not yet satisfied for 'amber' issues identified in the text below that it can be ascertained beyond reasonable scientific doubt that the project would not have an adverse effect on the integrity of the following internationally designated sites.

- Humber Estuary Special Protection Area (SPA)
- Humber Estuary Ramsar
- Lower Derwent Valley Special Protection Area (SPA)
- Lower Derwent Valley Ramsar

Further information is required to assess the following impact pathways for the above designated sites:

- Potential loss of functionally linked land (FLL) for the Humber Estuary SPA / Ramsar and the Lower Derwent Valley SPA / Ramsar (construction and operation) ('amber') **[NE1]**
- Noise and visual disturbance during construction to FLL for the Humber Estuary SPA / Ramsar and the Lower Derwent Valley SPA / Ramsar (construction) ('amber') **[NE2]**
- Operational impacts to FLL for the Humber Estuary SPA / Ramsar and the Lower Derwent Valley SPA / Ramsar (construction) ('amber') **[NE3]**
- Potential air quality impacts from construction traffic on international designated sites (construction) ('amber') **[NE4]**
- In-combination impacts on international designated sites (construction and operation) ('amber') **[NE8]**

Natural England is satisfied that 'green', 'yellow' and 'grey' issues are unlikely to result in adverse effects on the integrity (AEoI) of the above designated sites, subject always to the appropriate mitigation / compensation as outlined in the application documents being secured adequately. Please find a summary of each 'green', 'yellow' or 'grey' issue below, and refer to Part II for further details:

- Potential impacts (other than air quality) on River Derwent SAC, Lower Derwent Valley SAC and Humber Estuary SAC (construction and operation) ('yellow') **[NE5]**
- Potential impacts on Skipwith Common SAC and Thorne Moors SAC (construction and operation) ('green') **[NE6]**
- Impacts on the Thorne and Hatfield Moors SPA breeding nightjar feature (construction and operation) ('green') **[NE7]**
- General advice on the Habitats Regulations Assessment (sHRA) produced for the project (construction and operation) ('grey') **[NE9]**

Nationally designated sites

Natural England's position regarding nationally designated sites is summarised below. Further detail on our reasoning for this is given against each impact pathway in Part II.

On the basis of the information submitted in relation to these sites, Natural England is not yet satisfied that the project is not likely to damage features of interest of the following nationally designated sites.

- Humber Estuary SSSI
- Derwent Ings SSSI
- Melbourne and Thornton Ings SSSI
- Brighton Meadows SSSI
- Eskamhorn Meadows SSSI

We note that the Humber Estuary SSSI, Derwent Ings SSSI, Melbourne and Thornton Ings SSSI and Brighton Meadows SSSI nationally designated site features that are affected by this proposal are broadly the same as the internationally designated site features. Please refer to the points in the 'Internationally designated sites' section above for all 'amber' issues, that also apply to these SSSIs **[NE11] [NE12]**.

Further information is required to assess the following impact pathways for the above designated sites:

- Potential air quality impacts from construction traffic on nationally designated sites (construction) ('amber') **[NE10]**
- Potential impacts on the interest features of Eskamhorn Meadows SSSI ('amber') **[NE13]**

Natural England is satisfied that 'green' and 'yellow' issues are unlikely to damage or destroy the features for which the below sites are designated, subject always to the appropriate mitigation as outlined in the application documents being secured adequately. Please find a summary of each 'green' or 'yellow' issue below, and refer to Part II for further details:

- Impacts on the breeding nightjar feature of both Thorne, Crowle & Goole Moors SSSI and Hatfield Moors SSSI ('green') **[NE14]**
- Impacts on the interest features of River Derwent SSSI ('yellow') **[NE15]**

Protected species

Natural England is not providing bespoke advice on the protected species information provided in the Environmental Statement (ES) for this project. Please refer to Part II for a summary of our standing advice ('green') **[NE16]**.

Soils and best and most versatile agricultural land

Natural England's position regarding soils and the best and most versatile agricultural land (BMV) is summarised below. Further detail on our reasoning for this is given in Part II.

- We welcome that the outline Soil Management Plan (oSMP) is to be secured in the DCO. We also provide detailed comments in relation to soils and BMV in Table 1 ('amber') **[NE17]**.

Biodiversity Net Gain

Natural England's position regarding provision of Biodiversity Net Gain (BNG) is summarised below. Further detail on our reasoning for this is given in Part II:

- Although BNG is not yet a mandatory requirement for NSIPs, we strongly recommend that BNG provision is secured through this development. Further comments on the use of the BNG metric for this development are provided in Table 1 ('yellow') **[NE18]**.

3. Natural England's overall conclusions

Natural England's advice is that there are a number of matters which have not been resolved satisfactorily as part of the pre-application process that must be addressed by Enso Green Holdings D Ltd. and the Examining Authority as part of the Examination and consenting process before development consent can be granted, as summarised in Section 2 above and outlined in further detail in Part II below.

Some of these matters are important enough to mean that if they are not satisfactorily addressed it would not be lawful to permit the project due to its impacts on SAC, SPA, Ramsar and SSSI interests. The specific concerns in relation to each are detailed in Part II.

Natural England's Relevant Representations

4. Part II: Natural England's detailed advice

4.1 Part II, Table 1 of these representations expands upon the detail of all the significant issues ('amber' issues) which remain outstanding and includes our advice on pathways to their resolution where possible. Table 1 also shows 'green', 'yellow' and 'grey' issues. Please refer to Part I for definitions of these.

4.1.1 Natural England will continue engaging with the Applicant to seek to resolve outstanding concerns throughout the Examination. Natural England advises that the matters indicated as 'amber' will require consideration by the Examining Authority during the Examination.

Natural England's Relevant Representations, Part II, Table 1

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
NE1.1	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar • Lower Derwent 	Potential loss of functionally linked land (FLL) for the relevant qualifying bird features of the listed SPA / Ramsar sites. <i>Comments on the conclusions of the HRA (hereafter 'the HRA') [APP-151]</i>	<u>Habitats Regulations Assessment - FLL conclusions</u> SPAs are classified for rare and vulnerable birds. Many of these sites are designated for mobile species that may also rely on areas outside of the site boundary (referred to as 'functionally linked land' (FLL)). These supporting habitats may be used by SPA bird populations or some individuals of the population for some or all of the time. These supporting habitats can play an essential role in maintaining SPA species populations, and proposals affecting them may therefore have the potential to affect the designated site. Natural England note the conclusion of the Information to Inform a HRA (hereafter 'the HRA') [APP-151], is that likely significant	N/a – Further information required. Please refer to NE1.2 and NE1.3 for details of further assessment/ information required.	'Amber'

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
	<p>Valley SPA</p> <ul style="list-style-type: none"> Lower Derwent Valley Ramsar 	(C) and (O)	<p>effects (LSE) on the Humber Estuary SPA / Ramsar and Lower Derwent Valley SPA / Ramsar can be ruled out (6.1.1).</p> <p>Following our S42 response (07 Dec 2023), we continue to advise that further information remains outstanding, and therefore we do not have enough information at present to rule out potential impacts on FLL. Please refer to the below advice on the Appendix 8.2 Ornithology Survey Report [APP-145] and the Information to Inform HRA [APP-151] to inform further assessment of impacts.</p> <p>We have separated this into NE1.2 (comments on Appendix 8.2) and NE1.3 (comments on Appendix 8.9) for ease. Please refer to these sections for details of further assessment/information required.</p> <p>As noted in our S42 response, Natural England produced a 2016 review of available literature on the impact of solar farms on birds (NEER012) which may be useful when carrying out additional assessment.</p>		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
NE1.2	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar • Lower Derwent Valley SPA • Lower Derwent Valley Ramsar 	<p>Potential loss of functionally linked land (FLL) for the relevant qualifying bird features of the listed SPA / Ramsar sites.</p> <p><i>Comments on Appendix 8.2 Ornithology Survey Report [APP-145]</i></p> <p>(C) and (O)</p>	<p><u>Comments on the Appendix 8.2 Ornithology Survey Report</u></p> <p>We provided initial comments on this report through our S42 consultation response (dated 07 December 2023). We have also provided advice on iterations of the report through our Discretionary Advice Service (DAS) in March 2023 and August 2023. We provided comments on the planned additions to this report in April 2024 also but were unable to provide detailed advice on the report's content, as this DAS consultation did not include an updated version of the report.</p> <p>Our advice below provides an update on our comments following the submission of this updated version and details any further information/assessment we consider to be outstanding, in order to inform a full assessment of FLL.</p> <p><i>Desk study</i></p> <p>We welcome that the updated Appendix 8.2 now contains a map (Figure 8.21) demonstrating the locations of the bird records search results in the context of the application site and the 600m buffer zone, as recommended in our S42 consultation response. Figure 8.21 demonstrates that no records are present on the application site itself, but that there are relevant records in the 600m buffer.</p> <p>The records search demonstrates that component species of both the Humber Estuary SPA/Ramsar and Lower Derwent Valley</p>	<p>N/a – Further information required.</p>	

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>SPA/Ramsar have previously been found within the 600m buffer area, including greylag goose, teal, snipe, oystercatcher, shelduck, redshank, lapwing and whooper swan. This indicates that SPA/Ramsar birds may utilise the wider area. The desk study findings should be compared to the results of the surveys undertaken to demonstrate whether the survey results have fully captured the relevant species.</p> <p>We welcome that the birds records search has been expanded and mapped but advise that further assessment is provided of the current desk study results, and how this informs conclusions given in the HRA.</p> <p>We also recommend that further desk study is carried out, which may comprise of the following:</p> <ul style="list-style-type: none"> • Consultation with the Council’s Ecologist; • Consultation with local bird groups and other organisations that may hold relevant information; • Use of the BTO’s WeBs data to examine the collected survey data against peak bird counts for the estuary as a whole, and for the most relevant sectors; and • A desk-based assessment - using aerial photography, mapping, habitat maps and relevant ecological literature – of the suitability for SPA birds of the habitats present on the proposed site and adjacent fields. 		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>In relation to the last point above, we welcome that the habitat on-site has been described in the available documents, including in 1.2.2 of Appendix 8.2. However, we would recommend the additional desk study discusses the suitability of the habitat for relevant SPA/Ramsar birds further.</p> <p><i>Wintering/passage bird surveys</i></p> <p>We welcome that Figures 8.8 to 8.16 now provide clarification on the areas that have been surveyed. These also demonstrate that the proposed grid connection corridor area does appear to have been surveyed. We would advise however that the transect route is also included in these maps, as is detailed for the nocturnal surveys in 8.17. We also welcome that Table 2.7 now provides details of the survey effort across the months and years for which the site has been surveyed.</p> <p>We note that further definition of “suitable open land” has been provided in 2.2.8 of the updated report. This confirms that wintering/passage survey areas included arable/pasture fields, associated boundary features and waterbodies, with woodland and scrubland screened out of requiring survey. We confirm that for the purposes of the wintering/passage surveys, this would adequately target the survey effort to relevant habitat types.</p> <p>We welcome that alongside the 2023 spring passage surveys, that additional survey effort for the autumn passage period has now</p>		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>been provided. We note that these additional surveys cover September (4 surveys) and October 2023 (2 surveys). However, we advise that these do not cover August, and we would advise that justification/assessment is provided around why surveys for this month were not considered to be required. This may be informed by assessment of historical records, consideration of observations of wintering birds, and potential references to information such as the peak months for relevant species across previous years for the estuary as a whole, and at the nearest relevant WeBS sectors, to assess whether the current survey effort provides sufficient coverage of the relevant peak months.</p> <p>We note that the Application site has been surveyed across various years and months, as a result of a range of factors, including red-line boundary changes, and the subsequent addition of spring/autumn passage data for 2023. Our summary of relevant information from the total survey effort across 2021 to 2023, including relevant peak counts/ bird usage, is as follows:</p> <ul style="list-style-type: none"> October 2021 to March 2022: Two diurnal surveys per month, totalling 12 surveys of the initial redline area (not including grid connection corridor) and 600m buffer. <p><u>Within the red-line boundary:</u> A peak count of 92 lapwing in survey 1, and regular usage of Field 25 by flocks of lapwing, with a peak count of 72 in survey 9. Low numbers of golden plover, peak count of 2 individuals. Fly overs only recorded for pink-footed goose, with a peak of 250.</p> 		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p><u>Within the 600m buffer:</u> Peak count of lapwing was 4 individuals, and no golden plover recorded. Fly overs only recorded for pink-footed goose, with a peak of 120. The lake adjacent to Field 339 supported a range of waterfowl species, with peak counts of 73 wigeon (survey 6), which were found regularly between surveys 4 and 9.</p> <ul style="list-style-type: none"> <p>October 2022 to March 2023: Two diurnal surveys per month, totalling 12 surveys of the <u>additional</u> redline area and the grid connection corridor area, and the 600m buffer. <u>Within the additional red-line boundary:</u> No SPA/Ramsar species recorded within the additional red-line boundary. <u>Within the 600m buffer:</u> A peak of 28 lapwing in Field 255.</p> <p>April 2023 and May 2023 (spring passage): Four diurnal surveys per month, totalling 8 surveys of the entire site, and the 600m buffer. <u>Within the red-line boundary:</u> No SPA/Ramsar species recorded in numbers higher than 3. <u>Within the 600m buffer:</u> No SPA/Ramsar species with peaks higher than 16. A peak of 2 lapwing and a peak of 2 shelduck.</p> <p>September and October 2023 (autumn passage): Four diurnal surveys in September and two in October, totalling 6 surveys. <u>Within the red-line boundary:</u> A peak count of 12 lapwing.</p> 		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p><u>Within the 600m buffer:</u> A peak count of 12 lapwing.</p> <p>We have provided further comments on the interpretation and assessment of the available desk study/survey data above, in the following section on the HRA [NE1.3].</p> <p>Section 5.2.3 of the HRA states that survey data is available for two and a half years. Based on the survey data available, it appears that for the majority of the site itself (red line boundary), there is one year's total data across the years surveyed. We acknowledge, however, that this is not the case for some of the site, and that two years' survey data is available for the month of October for the red-line boundary, and two years' survey data is available for the months of October to March for the 600m buffer.</p> <p>Natural England's approach to projects within 10km of the Humber Estuary and Lower Derwent Valley with a large footprint has evolved over time, and for such projects we are now often advising that two years' data is collected (please refer to Annex C for further details). We acknowledge that in this case, the applicant has not been previously advised of this recommendation.</p> <p>In this case, we would therefore advise that the Applicant provides justification around why this is not a significant limitation for their project. This can be supported by an updated desk study as above, alongside the wintering/passage data gathered across 2021-2023.</p>		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>We also advise that clarification is also provided on the peak figure of 211 lapwing given in Table 3.11 of Appendix 8.2, and in 4.3.18 and Table 5.1 of Appendix 8.9. It is not clear whereabouts this peak is represented in the survey results, and whether this is from a single visit, or a combined total from multiple survey days. We advise that clarification is provided.</p> <p><i>Nocturnal surveys</i></p> <p>We advised in our S42 response that depending upon the species of concern it may also be necessary to consider nocturnal surveys (specifically waders) as part of the survey effort. As several wading bird species form part of both the Humber Estuary SPA / Ramsar and the Lower Derwent Valley SPA / Ramsar, we recommended that nocturnal surveys are carried out at the site.</p> <p>We welcome that nocturnal surveys were carried out monthly from January 2024 to March 2024 for all fields within the redline boundary. We note that low usage of the site by any relevant SPA/Ramsar species is demonstrated in these nocturnal surveys in 3.2.35.</p> <p>We advise that justification is provided around the sufficiency of the nocturnal survey effort, and whether or not it is considered that further nocturnal surveys may be required to inform assessment of impacts of the project site on FLL.</p>		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
NE1.3	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar • Lower Derwent Valley SPA • Lower Derwent Valley Ramsar 	<p>Potential loss of functionally linked land (FLL) for the relevant qualifying bird features of the listed SPA / Ramsar sites.</p> <p><i>Comments on the Information to Inform HRA document (hereafter 'the HRA') [APP-151]</i></p> <p>(C) and (O)</p>	<p><u>Comments on the Information to Inform HRA document (hereafter 'the HRA') [APP-151]</u></p> <p>We welcome the submission of the HRA document by the Applicant, and we note that Table 3.1 of the HRA details the internationally designated sites within 10km of the project site. We agree with the list included here for the screening assessment. For our comments on internationally designated sites other than the Lower Derwent Valley SPA/Ramsar and the Humber Estuary SPA/Ramsar, please refer to sections NE4 to NE9.</p> <p>As noted in NE1.1, the HRA rules out likely significant effects on passage/wintering birds associated with the Lower Derwent Valley SPA/Ramsar Humber Estuary SPA/Ramsar. However, we advise that further information is required to determine impacts on FLL. Please refer to NE1.2 in relation to additional assessment/information required in relation to the bird data gathered.</p> <p>However, we concur with 4.1.5 of the HRA that the breeding bird features of the Lower Derwent Valley SPA/Ramsar and the Humber Estuary SPA/Ramsar can be screened out of further assessment.</p> <p>Please refer to our comments below in relation to the assessment of FLL in the HRA document.</p>	<p><i>N/a</i> – Further information required.</p> <p>We advise the FLL assessment criteria in the Information to Inform HRA document [APP-151] is amended in accordance with the comments provided here.</p>	<p>'Amber'</p>

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p><i>Updated assessment of bird data</i></p> <p>We have advised in NE1.2 that an updated assessment of the collected bird data is required. We therefore advise that any additional assessment is incorporated into the HRA, and once provided, we will give further comments on this assessment.</p> <p><i>Criteria for determination of FLL in the HRA</i></p> <p>Section 4.3.13 of the HRA states that “<i>Natural England has requested an alternative methodology which takes a more qualitative approach; however Natural England did not provide reference to a specific methodology or clear guidance</i>”, on 01 May 2024. We consider that this point is likely in relation to our 26 April 2024 DAS response, provided on request of the Applicant. It is then noted that this was not considered further as this was provided outside of a statutory consultation period, and therefore it has not been taken into consideration.</p> <p>We therefore have previously provided advice on the criteria given in the HRA in relation to determination of whether land is potentially functionally linked to the Lower Derwent Valley SPA/Ramsar or Humber Estuary SPA/Ramsar through DAS.</p> <p>To summarise our advice, we consider that the FLL assessment should be informed by a range of factors. The use of 1% of the relevant designated site population is a ‘rule of thumb’, which can</p>		

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			<p>be used to inform whether loss of land to development is likely to have a significant effect. However, land used by less than 1% of the designated site population of key species may also be damaging, particularly if the species is vulnerable. Therefore, we also advise that factors such as frequency of use (for example, is a field consistently used throughout the survey period), and vulnerability of the species present are assessed also. Factors such as site characteristics can also inform the assessment, for instance, through assessment of the habitat type in the years of survey. For example, this could include any cropping regimes that may impact its suitability to support SPA birds.</p> <p>We are happy to work with the Applicant on a solution to these aspects.</p> <p>Please refer to our detailed comments below in relation to each of these criteria, which reflect advice provided in our 26 April 2024 DAS response.</p> <p><u>HRA comment:</u> “4.3.10 - In October 2021, Natural England (NE) published a report titled ‘Identification of Functionally Linked Land supporting Special Protection Areas (SPAs) waterbirds in the North West of England (NECR361)⁸. This report sets out criteria as to how functionally linked land (FLL) are defined in the region. Although the Site is not within the north-west region, the report is considered in this assessment, particularly given the lack of suitable alternative approaches.”</p>		

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			<ul style="list-style-type: none"> <u>NE response to comment</u>: As advised in our S42 response, the approach in the Natural England 2021 North West of England study that used the GB population to determine significance of functionally linked land was deemed suitable at a regional-scale and we do not consider this appropriate at development site level. <p><u>HRA comment</u>: “4.3.15 - Regular usage was defined in the NE report as being used by significant numbers of birds for 7 or more years since 2010. Clearly this is not compatible with surveys for impact assessment purposes; however, the NE report further states that Stroud et al. (200111) define ‘regular’ as when a threshold is met in two thirds of the season for which adequate data are available.”</p> <ul style="list-style-type: none"> <u>NE response to comment</u>: We note that the information cited in this section is derived from parameters from the Natural England 2021 North West of England study that used the GB population. As above, we do not consider it appropriate to use the methodology of this study at development site level. Please refer to our comments below in response to other criterion used, for further information in relation to types of assessment that may be undertaken. <p><u>HRA comment</u>: “4.3.12 - For alone SPA/ Ramsar Site qualifying species a significant number of birds is defined as ≥1% of the SPA</p>		

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			<p><i>population taken from BTO WeBS reports⁹, and associated results presented on the BTO WeBS website...”</i></p> <ul style="list-style-type: none"> • <u>NE response to comment</u>: In relation to using 1% of the SPA/Ramsar population of a species as a ‘threshold’ to determine whether usage of an area of FLL is significant, we now know that populations of SPA/Ramsar bird species that rely on functionally linked land are becoming more vulnerable. This is due to a number of pressures, including the loss of suitable areas of land outside the designated site boundary, which the birds use for roosting and feeding. The Supplementary Advice on Conservation Objectives identifies where populations should be restored, which indicates that these species are vulnerable and not meeting the Conservation Objectives. <p>We do not consider that it is appropriate to interpret the 1% rule of thumb in a way that only loss of functionally linked land which has been recorded as being used by ≥1% of the designated site population of a species is likely to lead to a significant effect. Loss of land to development that is used by less than 1% of the estuary population of key species may also be damaging, therefore a likely significant effect cannot be ruled out, and the Appropriate Assessment (AA) should consider a range of factors (see below paragraph). If it cannot be ascertained that there will not be an adverse effect on integrity of the site features, then mitigation</p>		

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			<p>measures may be required to avoid or reduce the effect. However, we acknowledge that not all functionally linked land will have the same level of importance for features of a designated site, and the importance of this site should be assessed in the AA.</p> <p>We therefore advise that the 1% approach can be used as a rule of thumb, but as stated in our S42 response, this should be combined with other assessment. This can include how birds are using the project site in each season, even if numbers are below 1%, and could include assessment of factors such as frequency of use and vulnerability of the species present. To expand on the latter point, for example, where species are particularly vulnerable due to declines in the Humber population, it may not be appropriate to rely on the 1% of the estuary population, and mitigation measures may be required where lower numbers of vulnerable species are using a site that is proposed for development. Factors such as site characteristics can also inform the assessment, for instance, through assessment of the habitat type in the years of survey. For example, this could include any cropping regimes that may impact its suitability to support SPA birds (see below paragraph).</p> <p>In relation to cropping regime, we have previously advised that information on crop cover at the time of the bird surveys should be provided alongside the survey results. We note</p>		

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			<p>that Appendix 8.2 now includes some of this information in Table 3.14. We advise that the HRA should consider this information in informing the assessment. This can include the typical cropping pattern of the site, based on historic and future cropping data, and indicate how frequently different crops are present during the wintering and passage periods (e.g. ‘5 in 10 years’). In particular, the assessment should indicate how frequently short crop or bare ground (suitable for wading birds) and other crops such as winter wheat (suitable for geese) are present, to inform how the site functions as feeding or roosting areas for different SPA bird species.</p> <p><u>HRA comment</u>: “4.3.12 - ...or a species count exceeding 1,000 birds.”</p> <ul style="list-style-type: none"> • <u>NE response to comment</u>: We do not consider the above criterion is in-line with our guidance; please refer to advice above. <p><u>HRA comment</u> “4.3.14 For species which are not alone qualifying features of the SPA/ Ramsar Site, but instead are only listed as a component part of the qualifying waterbird assemblage, a significant number of birds is defined as ≥1% of each and every listed species that make up the assemblage, or ≥1% of the national (GB) population (taken from Woodward et al. 202010), or a species count exceeding 2,000 birds.”</p>		

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			<ul style="list-style-type: none"> • <u>NE response to comment</u>: It is our advice that the above criteria are not used in the assessment, and that the advice provided above, and in our S42 response is referred to. In relation to the first bullet point, we advise that adverse effects may occur on a designated SPA/Ramsar, even if only a single species of an assemblage is affected. In relation to the second and third points, we advise that assessment in relation to the relevant designated site populations (i.e., the Humber Estuary SPA/Ramsar and Lower Derwent Valley SPA/Ramsar in this case) are focused on in the assessment of impacts on these sites. 		
NE2	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar • Lower Derwent 	Noise and visual disturbance during construction to potential FLL for the relevant qualifying bird features of the listed SPA / Ramsar sites. (C)	We note that 5.3 of the HRA discusses potential noise and visual disturbance to qualifying features of the Lower Derwent Valley SPA/Ramsar and the Humber Estuary SPA/Ramsar. We agree with the statement in 5.3.6 that there will be no direct disturbance within the designated site boundaries, due to the spatial separation of the application site and the designated sites. However, we consider that indirect disturbance impacts could be possible, depending on the outcome of the further assessment around FLL requested in NE1.2 and NE1.3. The outcome of this may determine if further assessment is required in relation to noise/visual disturbance to SPA birds. For example, as advised in our S42 response, this could include potential disturbance as a result of constructing the grid connection corridor. For example,	N/a – Further information required.	‘Amber’

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	Valley SPA <ul style="list-style-type: none"> • Lower Derwent Valley Ramsar 		<p>although the lake within field 339 will be retained, it is close to parts of the connection corridor (~200m) and appears to be frequently used by some SPA/Ramsar species.</p> <p>We advise that any further noise/visual disturbance assessment could incorporate information already provided in 5.3.7, such as discussion of screening already present around the development site. We would also advise, as in our S42 response, that any additional required noise assessment should provide predicted noise levels during construction, and be compared to the background levels present.</p>		
NE3	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar • Lower Derwent Valley SPA 	Operational impacts (visual disturbance) to any adjacent FLL for the relevant qualifying bird features of the listed SPA / Ramsar sites. (O)	<p>We note that section 5.1.1. of the HRA states that <i>“During operation of the Proposed Development, potential effects are envisaged to be minimal. Operational activities will be restricted to occasional maintenance which will not generate significant levels of noise, vibration or lighting that have the potential to cause disturbance.”</i> We advise that based on this information, it is unlikely that there will be any operational impacts of the development on the referenced designated sites, however, we would advise that further assessment is provided around this following the additional FLL assessment requested in NE1.2 and NE1.3 is provided.</p> <p>We note also that Chapter 8, page 42 discusses that impacts of glint and glare on birds have been ruled out following the findings of Appendix 2.5 Glint and Glare Assessment. We advise that the findings of this are also summarised and included in the HRA.</p>	N/a – Further information required.	‘Amber’

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	<ul style="list-style-type: none"> Lower Derwent Valley Ramsar 				
NE4	<p>International designated sites</p> <p>All relevant international designated sites</p>	<p>Potential air quality impacts from construction traffic on international designated sites.</p> <p>(C)</p>	<p>We note that section 5.1.3 of the HRA references an Air Quality Consultants Technical Note, 23rd February 2024 that has been submitted to Natural England. It is stated that the letter identifies no likely significant effects on internationally designated sites, and therefore an air quality assessment has not been included.</p> <p>The information included within this technical note should also be incorporated in the HRA, to demonstrate why impacts have been ruled out. As this has not been submitted, we advise that there is not enough information in the HRA to rule out impacts. Furthermore, whilst we were consulted on the referenced document through DAS, we did not provide agreement on this point that impacts could be fully ruled out. We continue to advise that the below information is provided.</p> <p><u>Construction phase traffic</u></p> <p>We advised that the correct buffer distance of 200m from the affected road network to a designated site had been used, and</p>	N/a: Further Information Required.	‘Amber’

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>some assessment had been provided of designated habitat present within this buffer. However, we advised that the predicted AADT figure was provided for construction traffic flows before we could make detailed comments on potential impacts. We also advised that assessment of air quality impacts relating to any European site is included in the Habitats Regulations Assessment.</p> <p><u>Operational phase traffic</u></p> <p>We advised that for operation, it is unlikely there will be a significant effect on designated sites alone. However, we advised that the AADT value should also be provided for operational traffic. We also advised that assessment of air quality impacts relating to any European site is included in the Habitats Regulations Assessment.</p>		
NE5	<p>International designated sites</p> <p>River Derwent SAC</p> <p>Lower Derwent Valley SAC</p> <p>Humber Estuary SAC</p>	<p>Potential impacts on the designated features of the River Derwent SAC, Lower Derwent Valley SAC and Humber Estuary SAC</p>	<p>Table 8.12 of Chapter 8 of ES states that <i>“Due to the static nature of the sites’ qualifying habitat interests, spatial separation between the designated sites and the Site, measures to be adopted and good practice measures (as detailed in Section 8.5) will be sufficient to prevent any impacts, therefore, the potential for direct and indirect effects upon these statutory designated sites for nature conservation is scoped-out of the assessment”</i>.</p> <p>We note that the River Derwent SAC, Lower Derwent Valley SAC and Humber Estuary SAC are not only designated for static features, but they are also designated for mobile features including otter and fish. Based on the parameters of this project there are</p>	N/a	‘Yellow’

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			unlikely to be impacts on these sites (other than potential air quality impacts – please refer to NE4), however, we note that the HRA should discuss potential impacts on these features also. However, this is not an issue we will raise further through this examination.		
NE6	International designated sites Skipwith Common SAC Thorne Moors SAC	Potential impacts on the designated features of Skipwith Common SAC and Thorne Moors SAC.	<p>Table 8.12 of Chapter 8 of ES states that <i>“Due to the static nature of the sites’ qualifying habitat interests, spatial separation between the designated sites and the Site, measures to be adopted and good practice measures (as detailed in Section 8.5) will be sufficient to prevent any impacts, therefore, the potential for direct and indirect effects upon these statutory designated sites for nature conservation is scoped-out of the assessment.”</i></p> <p>We concur that impacts on Skipwith Common SAC and Thorne Moors SAC are unlikely, due to the spatial separation from the site (~8.5km north and ~9.09km southeast respectively), and that the sites are not designated for any mobile features.</p>	N/a	‘Green’

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NE7	International designated sites Thorne and Hatfield Moors SPA	Potential impacts on breeding nightjar associated with Thorne and Hatfield Moors SPA	Appendix 8.2 concludes in 2.2.30 that potential functionally linked land for Thorne & Hatfield Moors SPA has not been assessed due to the distance of the application site to the SPA. Based on this information provided, Natural England concurs that significant effects on breeding nightjar associated with the Thorne and Hatfield Moors SPA are unlikely to occur, either alone or in combination. We note however that this is not included in the HRA and advise the HRA is updated accordingly.	Applicant's HRA to be updated to include conclusion in 2.2.30 of Appendix 8.2.	'Green'
NE8	International designated sites In-combination impacts on all relevant international designated sites	Potential in-combination impacts on international designated sites. (C) and (O)	<p>We welcome that some in-combination assessment for impacts on FLL has been included in 5.4 of the HRA. However, we advise that based on data in Table 5.1, and the date the HRA was written (May 2024), it appears unlikely that the figures for East Yorkshire Solar Farm are up to date, as further evidence was submitted into the projects Examination following that date. We would therefore advise that these figures are checked and updated to ensure the assessment is accurate.</p> <p>We note that for all internationally designated sites for which impacts have been screened out alone, there has been no subsequent assessment of potential in-combination impacts at the screening stage in Table 8.12 of Chapter 8 of the ES (please also refer to note NE9 in relation to how information has been presented between the ES and the HRA). We would advise this is provided.</p>	N/a: Further information required.	'Amber'

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NE9	International designated sites All relevant international designated sites	General advice on the Habitats Regulations Assessment produced for the project (C) and (O)	<p>We note that the HRA focuses predominantly on screening for impacts on the Lower Derwent Valley SPA/Ramsar and the Humber Estuary SPA/Ramsar and draws on detail from Table 8.12 in Chapter 8 of the ES for other internationally designated sites.</p> <p>We note however, that HRA does not provide the detail around why LSE can be ruled out for the listed sites. We note that there is some detail present in Table 8.12 of Chapter 8 of the ES, and we would advise that any relevant detail from this table is included in the final HRA, so that all information used to inform the HRA is in one location.</p>	<u>N/a</u> : Note to the ExA on methodology.	‘Grey’
NE10	Nationally designated sites All relevant nationally designated sites	Potential air quality impacts from construction traffic on nationally designated sites. (C)	<p>We note that section 5.1.3 of the HRA references an Air Quality Consultants Technical Note, 23rd February 2024 that has been submitted to Natural England. It is stated that the letter identifies no effects on nationally designated sites, and therefore an air quality assessment has not been included.</p> <p>We advise that there is not enough information submitted with the current consultation to rule out impacts. We were also consulted on the referenced document through DAS, and we did not provide agreement at this point that impacts could be fully ruled out. We continue to advise that the below information is provided.</p> <p><u>Construction phase traffic</u> We advised that the correct buffer distance of 200m from the affected road network to a designated site had been used, and</p>	<u>N/a</u> : Further information required.	‘Amber’

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>some assessment had been provided of designated habitat present within this buffer. However, we advised that the predicted AADT figure was provided for construction traffic flows before we could make detailed comments on potential impacts.</p> <p><u>Operational phase traffic</u> We advised that for operation, it is unlikely there will be a significant effect on designated sites alone. However, we advised that the AADT value should also be provided for operational traffic.</p>		
NE11	<p>Nationally designated sites</p> <p>Humber Estuary SSSI</p>	Impacts on the interest features of the Humber Estuary SSSI	<p>Our advice regarding Humber Estuary SSSI broadly coincides with advice set out above for Humber Estuary SPA/Ramsar. We welcome that Chapter 8 of the ES now includes these SSSI's in Table 8.12. We note, however, that the table states "<i>No additional impacts to those addressed in Appendix 9.8 Information to Inform Habitats Regulations Assessment [EN010140/APP/6.3.9.8]</i>" for the overlapping SAC/SPA/Ramsar Sites", and scopes these out of the assessment. However, we highlight that these SSSI's are designated for additional features. Therefore, potential impacts on these features should also be considered in the relevant assessment and appropriate justification provided where impacts are ruled out.</p>	N/a: Further Information Required	'Amber'

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NE12	<p>Nationally designated sites</p> <p>Derwent Ings SSSI</p> <p>Melbourne & Thornton Ings SSSI</p> <p>Brighton Meadows SSSI</p>	<p>Impacts on the interest features of Derwent Ings SSSI, Melbourne & Thornton Ings SSSI, and Brighton Meadows SSSI</p>	<p>Our advice regarding Derwent Ings SSSI, Melbourne & Thornton Ings SSSI, and Brighton Meadows SSSI broadly coincides with advice set out above for Lower Derwent Valley SPA / Ramsar. We welcome that Chapter 8 of the ES now includes these SSSI's in Table 8.12. We note, however, that the table states <i>"No additional impacts to those addressed in Appendix 9.8 Information to Inform Habitats Regulations Assessment [EN010140/APP/6.3.9.8]"</i> for the overlapping SAC/SPA/Ramsar Sites", and scopes these out of the assessment. However, we highlight that these SSSI's are designated for additional features. Therefore, potential impacts on these features should also be considered in the relevant assessment and appropriate justification provided where impacts are ruled out.</p>	<p><u>N/a</u>: Further Information Required</p>	<p>'Amber'</p>
NE13	<p>Nationally designated sites</p> <p>Eskamhorn Meadows SSSI</p>	<p>Potential impacts on the interest features of Eskamhorn Meadows SSSI</p>	<p>Table 8.12 screens out impacts on Eskamhorn Meadows SSSI. Although we agree that there are unlikely to be impacts as a result of the pathways provided, we advise that it is not yet possible to completely rule out impacts on this SSSI until the advice in NE10 of this letter regarding air quality for all designated sites has been followed.</p>	<p><u>N/a</u>: Further Information Required</p>	<p>'Amber'</p>

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
NE14	<p>Nationally designated sites</p> <p>Thorne, Crowle & Goole Moors SSSI</p> <p>Hatfield Moors SSSI</p>	<p>Potential impacts on breeding nightjar associated with Thorne, Crowle & Goole Moors SSSI and Hatfield Moors SSSI</p>	<p>Our advice regarding the <u>breeding nightjar feature</u> of Thorne, Crowle & Goole Moors SSSI and Hatfield Moors SSSI broadly coincides with the above advice detailed in NE5 for Thorne & Hatfield Moors SPA.</p>	N/a	'Green'
NE15	<p>Nationally designated sites</p> <p>River Derwent SSSI</p>	<p>Impacts on the interest features of River Derwent SSSI</p>	<p>Table 8.12 of Chapter 8 of ES states that <i>“Due to the static nature of the sites’ qualifying habitat interests, spatial separation between the designated sites and the Site, measures to be adopted and good practice measures (as detailed in Section 8.5) will be sufficient to prevent any impacts, therefore, the potential for direct and indirect effects upon these statutory designated sites for nature conservation is scoped-out of the assessment”</i>.</p> <p>We note that the River Derwent SSSI is not only designated for static features, and is also designated for mobile features including otter and fish. Based on the parameters of this project there are unlikely to be impacts (other than potential air quality impacts – please refer to NE10), however, we note that the assessment should discuss potential impacts on these features also. However, this is not an issue we will raise further through this examination.</p>	N/a	'Yellow'

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
NE16	Protected Species	Protected species – General	<p>Natural England has adopted <u>standing advice</u> for protected species, which includes guidance on survey and mitigation measures. Natural England is not providing bespoke advice on the protected species information provided in the Environmental Statement for this project.</p> <p>A separate protected species licence from Natural England or Defra may be required. Applicants should refer to the guidance at <u>Wildlife licences: when you need to apply</u> to check to see if a mitigation licence is required. Applicants can also make use of Natural England’s charged service <u>Pre Submission Screening Service</u> for a review of a draft wildlife licence application. Natural England can then review a full draft licence application to issue a Letter of No Impediment (LONI) which explains that based on the information reviewed to date, that it sees no impediment to a licence being granted in the future should the DCO be issued. See <u>Advice Note Eleven, Annex C – Natural England and the Planning Inspectorate National Infrastructure Planning</u> for details of the LONI process.</p>	Requirement for mitigation has not been assessed by Natural England, however, we note that the DCO doesn’t secure any measures for protected species. Please refer to Part III.	‘Green’
NE17	Best and Most Versatile Agricultural Land	Soils and BMV Agricultural Land – Detailed comments	<p>Natural England welcome the inclusion of the outline Soil Management Plan (oSMP). We advise however that following our S42 response, the updated oSMP [APP-173] has not directly addressed previous advice. In particular, we advise the following points should be addressed.</p> <p><u>Comments on the oSMP</u></p>	N/a – Further information required	‘Amber’

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>We recommend that the DEFRA best practice guidance (Defra Construction Code of Practice) should be followed and referred to throughout the final management plan.</p> <p>Soil handling should generally be avoided October to March inclusive, irrespective of soil moisture conditions, because it will generally not be possible to establish green cover over winter to help dry out soils and protect them from erosion. Soils should only be handled in a dry and friable condition. A field suitable method for assessing whether soils are in a dry and friable condition based on plastic limits is set out in Part One (Explanatory Note 4 – Table 4.2 provided below in Annex 1) of the Institute of Quarrying’s Good Practice Guide for Handling Soils in Mineral Working, and this approach together with the associated rainfall protocols should be adopted.</p> <p>Where compaction is likely to take place further consideration should be given to providing a decompaction strategy to maximise the effectiveness of decompaction methods. Further guidance may be found here; IQ Soil Guidance Sheet.</p> <p>There should also be a commitment for ‘best and most versatile’ (BMV) agricultural temporality required for the development to be returned back to its original ALC grade. This includes areas such as field scale ecological mitigation areas and borrow pits where reinstatement to the physical characteristics of ‘best and most</p>		

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			<p>versatile' quality may also be required. We also note that recovery is less likely to occur rapidly during winter months.</p> <p>We note that that the final surface of the infill is to be at such a level as to follow the final pre-settlement contours as specified in the submitted details. Natural England welcomes this commitment and recognise this satisfies any previous advice regarding the decommissioning process.</p> <p>We note that target soil profiles for the extension area are not given. A minimum settled soil depth of 120cm is required, typically 30cm topsoil over 90cm of subsoil. The available volumes and deployment of the differing soil types by phase within the extension area is not stated. The reinstated soil profile should be capable of achieving best and most versatile quality. We recommend that these points are addressed in the SMP.</p> <p><u>ALC of the cable route corridor</u></p> <p>We note that no additional assessment has been provided of impacts of the cable route corridor. As demonstrated in Figure 3.2 Parameter plan, a large area connects three areas of the solar PV zone together.</p> <p>Paragraph 9.5 of the oSMP notes that '<i>If the topsoil was from grassland the grass will probably recover rapidly without the need to reseed. In bare soils the trench can be cultivated with the wider area for seeding to grass post installation</i>'. However, we advise that</p>		

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>the latter would need to be carried out at a specific time of year to enable successful reseedling to take place.</p> <p>Please refer to section 4.2 of our S42 response for full comments on Soils and BMV Agricultural Land.</p>		
NE18	Biodiversity Net Gain (BNG)	BNG – General and advisory note on delivery	<p>Natural England have not undertaken a detailed assessment of the metric calculations provided in Appendix 8.11 - Statutory Biodiversity Metric Calculation Tool [APP-153], however, we welcome that the statutory tool has been used.</p> <p>It is noted on Page 44 of Chapter 8, that all rules and principles of BNG have been adhered to, however, we note that some aspects are not in line with the metric user guide. We note that at present BNG is not a mandatory requirement for NSIP development, however, we would recommend that all aspects of the metric user guide are followed. In particular, we note that the 10% requirement has not been met for watercourse units, and the trading rules have not been fully adhered to. We provide general advice on incorporation of BNG within NSIP proposals below.</p> <p>The Environment Act 2021 includes NSIPs in the requirement for BNG. The biodiversity gain objective for NSIPs is defined as at least a 10% increase in the pre-development biodiversity value of the on-site habitat. The biodiversity baseline should include all land</p>	<p><u>N/a</u> – Advisory note/ recommendation around BNG delivery.</p> <p>We welcome the commitment to delivering BNG on this project. We recommend that the target increase in BNG across all biodiversity unit types is secured by a suitably worded requirement in the DCO. Biodiversity</p>	‘Yellow’

NE key issue ref	Topic	Issue summary. (C) – construction phase (O) – operational phase	Natural England commentary and advice on the further information required to enable assessment.	Natural England comment on the mechanism for securing mitigation / compensation measures in the DCO.	Risk (Red/ Amber/ Green)
			<p>contained within the site's red line boundary and proposals can be iteratively refined over time and throughout detailed design. We encourage developers to:</p> <ul style="list-style-type: none"> • develop their BNG proposals in adherence with well-established BNG principles. • use the latest version of the Defra biodiversity metric, adhering to the metric guidance. 	<p>gains should ideally be secured for a minimum of 30 years and be subject to adaptive management and monitoring.</p>	

Natural England's Relevant Representations

PART III: Natural England's detailed comments on the Development Consent Order (DCO) associated documents

We advise that our comments on the DCO in the table below are likely to evolve throughout the Examination period, as there are currently outstanding issues detailed in Part II.

Page	DCO or omission ref	Natural England's comments	Risk (Red/Amber/Green)
39	Schedule 2, Part 1, Requirement 8	Natural England consider this an essential requirement. Comments have been provided above on what additional considerations should be included within the outline soil resource management plan.	'Amber'
40	Schedule 2, Part 1, Requirement 10	Natural England consider this an essential requirement. The DCO does not currently specifically secure biodiversity net gain proposals. This could be included within this requirement. We recommend a minimum of 10% biodiversity net gain is secured within the DCO wording.	'Yellow'
N/A	General comment	The DCO does not currently secure measures to prevent impacts to protected species.	'Amber'

Annex 1

Annex C: Passage and wintering bird surveys for functionally linked land associated with the Humber Estuary and/or Lower Derwent Valley designated sites (Version 1.1, December 2021)

Background

The below guidance is intended to inform assessments of proposed development sites in proximity to the Humber Estuary and/or the Lower Derwent Valley designated sites only, where potential impacts from loss of/disturbance to functionally linked land (FLL) have been identified, for example due to presence of suitable habitat (such as arable land/grassland or open waterbodies) and/or relevant bird records and/or local knowledge.

Natural England recommends that surveys are undertaken of the site and surrounding fields to provide an overview of bird usage during wintering and spring/autumn passage periods.

We recommend that the surveys are carried out in line with the following best practice guidance. Where alternative approaches are used, clear justification should be provided.

Please note that recommended survey periods, frequency and design may differ for sites located within the boundaries of Humber Estuary or Lower Derwent Valley designated sites, or in proximity to other designated sites. Please contact Natural England in such cases.

Survey periods and frequency

Natural England recommends that surveys are completed at the following frequency:

- Autumn Passage – two surveys per month between August to October inclusive.
- Winter - two surveys per month between October to March inclusive.
- Spring Passage – two surveys per month between March - Mid-May inclusive.

We advise that spring and autumn passage surveys are completed (in addition to winter surveys) as the Humber Estuary and Lower Derwent Valley SPAs are important for species migrating between breeding and wintering sites. Further advice on seasonality for Humber Estuary SPA and Lower Derwent Valley SPA designated features can be found at [Designated Sites View \(naturalengland.org.uk\)](https://naturalengland.org.uk/designated-sites-view) and [UK9006092 Lower Derwent Valley SPA Published 14 Sep 2023 \(naturalengland.org.uk\)](https://naturalengland.org.uk/uk9006092-lower-derwent-valley-spa-published-14-sep-2023), respectively.

Weekly visits during the autumn and spring passage periods are recommended where birds are likely to be present in the migration period only, due to high turnover of birds during migration. Note that certain passage species, such as whimbrel associated with the Lower Derwent Valley SPA, may have specific survey requirements due to their migration behaviour. Please discuss such cases with Natural England.

Natural England recommends that two years of wintering and passage surveys should be completed in certain cases to provide a more robust understanding of SPA bird usage on the site and inform design of suitable mitigation, where relevant. This will depend on site-specific factors, for example where proposed development sites:

- are in very close proximity to the designated site/s; and/or
- have a large development footprint; and/or
- are expected/shown to have high bird sensitivity, especially where activity varies significantly between years; and/or
- existing bird records / expert advice demonstrates usage of the site by high numbers of SPA birds.

Please contact Natural England if you are unclear on whether two years of wintering and passage surveys are recommended for this proposal.

Survey design

Wintering/passage surveys should be designed to ensure that results are sufficient to provide a robust picture of distribution, abundance and regularity of use by waterbirds associated with the Humber Estuary and/or Lower Derwent Valley SPAs across the full extent of the proposed development site. Please refer to Annex B and/or Annex B1 for the non-breeding waterbird assemblage list for the Humber Estuary and Lower Derwent Valley SPA, respectively.

A detailed methodology should be included in the relevant report/s, including key information such as number of visits, date and time of visits, viewpoint locations and/or transect routes walked. The survey results should provide some understanding of how the birds use the site (for example, for roosting or foraging) as well as presence/ absence. We would expect to see commentary of birds landing and taking off within and out-with the development site. We also recommend recording birds in flight, particularly if the application may have the potential to affect bird flight lines.

Consideration should also be given to surveys in poor weather/ visibility conditions. Usual survey methodology is to avoid surveying in poor conditions due to potential reduced detectability of birds. However, use can vary in different weather conditions, so it may be helpful to carry on with surveys in poor weather. Weather conditions may affect the results of the surveys and therefore should be considered in assessing the robustness of the dataset.

In addition, details of wider weather conditions should be included, for example, where there may have been a particularly wet or cold season and this may change bird distribution across the area, due to frozen ground etc. Furthermore, a milder autumn may lead to wintering birds arriving later and vice versa in colder autumns.

The methodology should also consider whether the site has any seasonal features such as dips and low-lying areas that retain water at particular times, for example early in the season or in wet years. These areas may have importance for waders at these times, but if surveyed during a drier spell or where full passage/winter surveys have not been completed, it may be possible to underestimate the importance of the site.

For sites in close proximity to the Humber Estuary, the surveys should cover different tidal states. Use of sites closer to the estuary are more likely to be tidally influenced. For sites which may potentially affect high tide roosts, observations should be conducted from two hours before high tide to two hours after high tide. For sites where there are high tide roosts, it may be beneficial to have a series of counts at different heights of tides ('through the tide counts'), as some sites are only used on Spring tides and others are only used on Neap and low tides.

For sites in proximity to the Lower Derwent Valley, the surveys should cover different times of day and different flooding states in the valley. For example, during certain winter periods, the designated site may be extensively flooded and therefore usage of surrounding functionally linked land may be higher for wading birds.

The surveys should cover open arable land/grassland and any waterbodies within the proposed site boundary, as well as land adjacent to the development that could be affected and provides the potential to support designated site species. Where a site is adjacent to the Humber Estuary designated site, additional considerations may be required, for example ensuring adequate surveys of intertidal habitats. Please contact Natural England in such cases.

Surveys may also need to take account of surveys at dusk and dawn, depending upon the bird species (i.e. geese and swans). If geese and swans have the potential to use the development site or surrounding area, we would expect to see surveys 1 hour before and 1 hour after, dusk and dawn during the respective bird survey season (i.e. winter, spring and autumn passage (as above)). These surveys should be in addition to the standard daytime survey but can be carried out on the same day. For example, a dawn survey to count geese or swans at their night-time roost could then extend into a survey of daytime use of fields for foraging.

Natural England generally recommends that observations from vantage points (VP) are used. VP surveys are considered preferable to walkover surveys for observing behaviour of birds on the ground (i.e., whether they are foraging/loafing etc.), and to minimise the risk of flushing birds due to movement of a surveyor during a walkover survey. Also, birds which may otherwise have landed in the field during the survey period may be unlikely to do so with the presence of a moving surveyor. If landscape features mean it is not possible to avoid walking through part of the survey area to get from one point count to another, this should be noted and the reaction of any birds present recorded, including any that are flushed.

Further guidance on vantage point surveys can be found at [Recommended bird survey methods to inform impact assessment of onshore windfarms | NatureScot](#). Natural England recognises that the NatureScot VP guidance is written for impacts associated with wind turbines. However, Natural England considers that the survey guidance detailed in Section 3.7 provides an appropriate methodology to identify distribution and abundance of birds to inform the assessment of other developments. We acknowledge that some of the information regarding the required watch hours and height considerations etc will not be relevant in the context of other developments. Therefore, site-specific considerations should be taken into account when designing the survey methods.

Where VP surveys are not considered appropriate for a particular site, clear reasoning and justification regarding the alternative survey methods undertaken should be provided.

Natural England has generally advised that if $\geq 1\%$ of a Humber Estuary bird species population could be affected by a proposal, alone or in combination with other plans or projects, then further consideration is required. However, where species are particularly vulnerable due to declines in the Humber population, then it may not be appropriate to rely on the 1% of the estuary population as the critical threshold. Mitigation measures may be required where lower numbers of vulnerable species are using a site that is proposed for development.

Nocturnal surveys

Wader and waterfowl usage of arable land/grassland outside designated sites can be substantially different at night. Therefore, Natural England recommends nocturnal surveys are also carried out if waders and/or waterfowl have the potential to use the development site. These surveys should be in addition to the standard daytime surveys. We recommend that several visits should be completed to determine if the site and/or surrounding areas play a regular role in supporting SPA species at night. Night vision/infra-red equipment and survey on moonlit nights can establish presence of nocturnal species or presence and direction of feeding/migration movements both by calls and by sight¹.

Guidance on nocturnal surveys can be found at [Nocturnal bird surveys | Bird Survey Guidelines](#). The nocturnal survey design should take this guidance into account, and the approach should be justifiable in the assessment. It should be noted that for most species nocturnal activity is likely to be underestimated in any attempted survey¹.