Date: 26 April 2024 Our ref: 473732 Your ref: EN070008

The Planning Inspectorate Major Applications & Plans Temple Quay House Temple Quay Bristol BS1 6PN



Customer Services Hornbeam House Crewe Business Park Electra Way Crewe Cheshire CW1 6GJ

T 0300 060 3900

BY EMAIL ONLY

Dear David Wallace,

NSIP Reference Name / Code: EN070008

Title: Natural England's comments in respect of Viking CCS Pipeline (Deadline 1).

Examining Authority's submission deadline with a date of 26 April 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 Robbie Clarey at @naturalengland.org.uk and copy to consultations@naturalengland.org.uk.

Yours sincerely

Robbie Clarey Planning & Environment Senior Adviser - Natural England

Natural England's Written Representations Version 1.1.

PART I: Summary and conclusions of Natural England's advice.

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

PART III: Natural England's response to the Examining Authority's (ExA's) first written questions (starting on page 48)

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

page 58)

Summary of Natural England's advice

Natural England's advice is that, in relation to identified nature conservation issues within its remit, there is no fundamental reason of principle why the project should not be permitted. However, Natural England considers that the applicant has provided insufficient evidence and is not yet satisfied that the following issues have been resolved:

Internationally Designated Sites - Humber Estuary Special Protection Area (SPA)

- Temporary loss of functionally linked land for non-breeding birds during construction (NE3, NE6, NE12) ('amber').
- Noise and visual disturbance to non-breeding birds within functionally linked land during construction and decommissioning (NE3, NE16, NE18) ('amber').
- Noise and visual disturbance to breeding birds within functionally linked land during construction (NE15) ('amber').
- Lighting disturbance to breeding and non-breeding birds within functionally linked land during all phases (NE8) ('amber').
- Noise and visual disturbance to breeding birds within functionally linked land during operation (NE9) ('amber').
- o In-combination assessment (NE24) ('amber').

Nationally Designated Sites - Humber Estuary Site of Special Scientific Interest (SSSI)

As per Internationally Designated Sites above.

Nationally Designated Landscapes - Lincolnshire Wolds National Landscape

- Assessment of alternatives (NE29a) ('amber').
- Assessment of the Special Qualities of the Lincolnshire Wolds National Landscape (NE29b-c) ('amber').
- Residual landscape and visual effects on the statutory purposes of the Lincolnshire Wolds National Landscape during construction and operation (NE29d-h) ('amber').

Soils and Best and Most Versatile Agricultural Land

- Survey Approach Extent (NE26b) ('amber')
- Outline Soil Management Plan (NE26c-e) ('amber')

Natural England has also noted several 'yellow' issues. We would ideally like to be addressed, but we 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.

Internationally Designated Sites - Humber Estuary Special Protection Area (SPA)

- o Non-breeding bird surveys pipeline route (NE4) ('yellow').
- Assessment of impacts to black-tailed godwit (NE7) ('yellow').

• Soils and Best and Most Versatile Agricultural Land

- Survey Approach Timing (NE26a) ('yellow')
- Outline Soil Management Plan (NE26f-g) ('yellow')

We welcome the further information provided by the applicant since submission of our Relevant Representations (RR-073) and consider that the following issues have now been resolved, subject to the completion of agreed revisions to the Habitats Regulations Assessment (HRA) for internationally designated sites issues, and subject always to the appropriate requirements being adequately secured for all relevant issues:

Internationally Designated Sites - Humber Estuary Special Protection Area (SPA)

- Inclusion of the most recent list of component species of the Humber Estuary SPA waterbird assemblage (NE2) ('green')
- SPA non-breeding bird usage at the Northern Compound (NE5) ('green')
- SPA non-breeding birds at Viking Fields during maintenance visits to the dune isolation valve (NE10) ('green')
- Timing of works at Viking Fields (NE14) ('green')
- In-combination assessment of disturbance to SPA birds at Rosper Road Pools (NE17) ('green')
- Works within the SAC (NE21) ('green')
- Cumulative impacts assessment (NE25) ('green')

1. Part I: Summary and conclusions of Natural England's advice

- 1.1 Natural England's advice in these Written Representations is based on information submitted by Chrysaor Production (UK) Limited in support of its application for a Development Consent Order ('DCO') in relation to Viking CCS Pipeline ('the project').
- 1.2 Part I of these Written Representations provides a summary and overall conclusions of Natural England's advice. This advice identifies whether any progress in resolving issues has been made since submission of our Relevant Representations (RR-073).
- 1.3 Part II of these Written Representations updates and where necessary augments Part II of the Relevant Representations (RR-073). It expands upon the detail of all the significant issues ('amber' issues) which, in our view remain outstanding and includes our advice on pathways to their resolution where possible. Part II also shows 'green' issues which have been agreed since our Relevant Representations (RR-073) (subject always to the appropriate requirements being secured adequately).
- 1.4 Part III of these Written Representations details Natural England's response to the Examining Authority's (ExA's) first written questions.
- 1.5 Part IV of these Written Representations details Natural England's comments on the draft Development Consent Order (DCO).

- 1.6 Our comments are set out against the following sub-headings which represent our key areas of remit as follows:
 - International designated sites
 - Nationally designated sites
 - Soils and Best and Most Versatile agricultural land
 - Biodiversity net gain
 - · Protected species
 - Protected landscapes
- 1.7 Our comments are flagged as red, amber, green, yellow, or grey:
 - Red are those where there are <u>fundamental concerns</u> which it may not be possible to overcome in their current form.
 - Amber are those where <u>further information</u> is required to determine the effects of the
 project and allow the Examining Authority to properly undertake its task and or advise
 that 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 <u>successfully resolved</u> (subject always to the appropriate requirements being adequately secured).
 - Grey are notes for Examiners and/or competent authority.
- 1.8 Natural England has been working with AECOM, on behalf of Chrysaor Production (UK) Limited to provide advice and guidance on the project since 2022. This has included a currently running contract with the applicant under our Discretionary Advice Service. We have also been engaged on the draft Statement of Common Ground (SoCG).
- 1.9 Natural England will continue discussions with AECOM, on behalf of Chrysaor Production (UK) Limited to seek to resolve these concerns throughout the examination. Natural England advises that the matters indicated as 'amber' will require continued consideration by the Examining Authority during the examination.

2. The natural features potentially affected by this application

2.1. Internationally designated sites

- 2.1.1. Natural England's position regarding internationally designated sites **has** changed since submission of our Relevant Representations (RR-073) for a number of key issues.
- 2.1.2. Our updated advice regarding impacts on internationally designated sites on the basis of further information submitted is set out below. Further detail on our reasoning for this is given against each impact pathway within Part II.

- 2.1.3. 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 (AEoI) of the following internationally designated sites:
 - Humber Estuary Special Area of Conservation (SAC).
 - Humber Estuary Special Protection Area (SPA).
 - Humber Estuary Ramsar.
- 2.1.4. Further information is required to assess the following impact pathways:
 - Temporary loss of functionally linked land for non-breeding birds during construction (NE3, NE6, NE12) ('amber').
 - Noise and visual disturbance to non-breeding birds within functionally linked land during construction and decommissioning (NE3, NE16, NE18) ('amber').
 - Noise and visual disturbance to breeding birds within functionally linked land during construction (NE15) ('amber').
 - Lighting disturbance to breeding and non-breeding birds within functionally linked land during all phases (NE8) ('amber').
 - Noise and visual disturbance to breeding birds within functionally linked land during operation (NE9) ('amber').
 - In-combination assessment (NE24) ('amber').
- 2.1.5. Natural England has also noted a number of 'yellow' issues in relation to the Humber Estuary designated sites. As stated in section 1, we would ideally like these to be addressed, but we 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. Please find a summary of each 'yellow' issue below, and refer to Table 1 for further details:
 - Non-breeding bird surveys pipeline route (NE4) ('yellow').
 - Assessment of impacts to black-tailed godwit (NE7) ('yellow').
- 2.1.6. Natural England is satisfied that 'green' issues are unlikely to result in adverse effects on the integrity (AEoI) of the Humber Estuary designated sites, subject always to the appropriate mitigation / compensation as outlined in the application documents being secured adequately. For a full list of 'green' issues please see NE1, NE11, NE13, NE19, NE20 of our Relevant Representations (RR-073). Please find a summary of each new 'green' issue below, and refer to Table 1 for further details:
 - Inclusion of the most recent list of component species of the Humber Estuary SPA waterbird assemblage (NE2)
 - SPA non-breeding bird usage at the Northern Compound (NE5)
 - SPA non-breeding birds at Viking Fields during maintenance visits to the dune isolation valve (NE10)
 - Timing of works at Viking Fields (NE14)
 - In-combination assessment of disturbance to SPA birds at Rosper Road Pools (NE17)
 - Works within the SAC (NE21)
 - Cumulative impacts assessment (NE25)

2.2. Nationally designated sites

- 2.2.1. Natural England's position regarding nationally designated sites **has** changed since submission of our Relevant Representations (RR-073). Our updated advice regarding impacts on nationally designated sites on the basis of further information submitted is set out below. Further detail on our reasoning for this is given against each impact pathway within Part II.
- 2.2.2. 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 interested of the following nationally designated sites:
 - Humber Estuary SSSI.
- 2.2.3. We note that the Humber Estuary 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' and 'yellow' issues, that also apply to the Humber Estuary SSSI.
- 2.2.4. Please refer to 'Internationally designated sites' section above and Table 1, for 'green' issues that Natural England consider are unlikely to damage or destroy the interest features for which the relevant nationally designated sites have been notified, subject to the appropriate mitigation as outlined in the application documents being secured adequately.

2.3. Protected species

- 2.3.1. Natural England's position regarding Protected Species has not changed since submission of our Relevant Representations (RR-073). Natural England is not providing bespoke advice on the protected species information provided in the Environmental Statement (ES) for this project. Please refer to Table 1 for a summary of our standing advice ('grey') (NE27).
- 2.3.2. Natural England have released a countersigned IACPC to the customer via our District Level Licencing Scheme for Great Crested Newts; have not received any further correspondence in relation to other protected species licences (NE27) ('grey').

2.4. Biodiversity Net Gain Provision

2.4.1. Natural England's position regarding provision of biodiversity net gain **has not** changed since submission of our Relevant Representations (RR-073). Please refer to Table 1 for our unchanged advice on Biodiversity Net Gain (NE28) ('grey').

2.5. Protected Landscapes

- 2.5.1. Natural England's position regarding Protected Landscapes has not changed since submission of our Relevant Representations (RR-073). However, we have provided the applicant with further detailed advice since the submission of our relevant representations and continue to work with them to overcome our concerns. A summary of our advice relating to landscapes is set out below, whilst our detailed advice and recommendations are set out within Part II (Table 1). For clarity, we have also provided the full advice letter and commentary provided to the applicant on this matter within Annex A this document provides full justification for our comments within these representations, where it is not apparent within Table 1.
- 2.5.2. The following items are considered 'amber'; further information is required:

- Assessment of alternatives (NE29a).
- Assessment of the Special Qualities of the Lincolnshire Wolds National Landscape (NE29b-c).
- Residual landscape and visual effects on the statutory purposes of the Lincolnshire Wolds National Landscape during construction and operation (NE29d-h).
- 2.5.3. The following items are considered 'grey':
 - Consideration of the potential Lincolnshire Heritage Coast (NE29i)
- 2.5.4. Further information is sought principally on the need to directly impact the Lincolnshire Wolds National Landscape; the impacts on special qualities; mitigation, including the use of trenchless methods; and whether the route can be successfully reinstated.

2.6. Soils and best and most versatile agricultural land

- 2.6.1 Natural England's position regarding soils and the best and most versatile agricultural land **has** changed since submission of our Relevant Representations (RR-073).
- 2.6.2 Our updated advice relating to Soils and Best and Most Versatile Land is set out below. Further detail regarding each item is set out in Part II, Table 1.
- 2.6.3 The following items are considered 'amber'; further information is required:
 - Survey Approach Extent (NE26b) ('amber').
 - Outline Soil Management Plan (NE26c-e) ('amber').
- 2.6.1. Please find a summary of each 'yellow' issue below and refer to Table 1 for further details. As stated in section 1, we would ideally like these to be addressed, but we 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.
 - Survey Approach Timing (NE26a) ('yellow').
 - Outline Soil Management Plan (NE26f-g) ('yellow').

Natural England's Written Representations

3. Part II: Natural England's detailed advice

- 3.1. Part II of these Representations updates and where necessary augments Part II of the Relevant Representations. It expands upon the detail of all the significant issues ('amber' issues) which, in our view remain outstanding and includes our advice on pathways to their resolution where possible. Part II also shows 'green' issues which have been agreed since our Relevant Representations (RR-073) (subject to the completion of agreed revisions to the Habitats Regulations Assessment (HRA) for internationally designated sites issues and to the appropriate requirements being secured adequately).
- 3.2. Natural England's advice is that there are a number of matters which have not been resolved satisfactorily since the submission of our Relevant Representations (RR-073), as summarised in Part 1, Section 2 above and outlined in further detail in Table 1 below.
- 3.3. 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 the SAC, SPA, Ramsar and SSSI interests. However, Natural England's advice is that all of these matters are capable of being overcome. The specific concerns in relation to each are detailed in Table 1.
- 3.4. Natural England advises that, if approved, the project must be subject to all necessary and appropriate requirements which ensure that unacceptable environmental impacts either do not occur or are sufficiently mitigated.
- 3.5. Natural England will continue engaging with the applicant to seek to resolve these concerns throughout the examination. Natural England advises that the matters indicated as 'amber' will require consideration by the Examining Authority during the examination.
- 3.6. Natural England understands that a Statement of Common Ground ('SoCG') will be submitted by the Applicant at Deadline 1. Our advice in Table 1 refers to clarifications and agreed updates to the Report to Inform a Habitats Regulations Assessment as outlined in the draft SoCG issued to Natural England on 16 February 2024.

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

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|---|---|--|---|---------------|
| NE2 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA – SPA qualifying features (C, O and D) | Natural England advises that the most recent list of component species of the Humber Estuary SPA waterbird assemblage (Appendix A) should be referred to in determining the relevant features, with justification provided where impacts on a more limited list of species are assessed. Natural England welcomes the commitment to include the updated waterbird assemblage in Appendix A of the Report to Inform the HRA (SoCG ref. 36). We therefore advise that this issue can be resolved. | Agreed updates required. | 'Green' |

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|---|---|---|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| NE3 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA – assessment of significance for non-breeding birds (C) | We note that the significance of qualifying bird populations has been assessed on a per field basis. We advise there is potential for cumulative impacts to SPA birds using functionally linked land across the project area. The HRA should therefore consider the significance of bird numbers across the project area and the potential for cumulative impacts (see key issue NE12 below). Natural England welcomes that the baseline survey data will be reviewed in order to provide further clarification (SoCG ref. 37). Further detail should be provided on the sequence / timing of works and the availability of roost and feeding sites within the study area to provide context on the proportion of suitable habitat that would be affected at any one time. Natural England welcomes the commitment to update the Report to Inform the HRA to provide further justification for conclusions on loss of functionally linked land (SoCG ref. 37) and will review this once submitted. Discussions are ongoing with the applicant regarding this. | Further information required. | 'Amber' |
| NE4 | International designated sites | Non-breeding bird surveys (C) | Section 1.3.16 of Appendix 6-7 states that surveys were conducted once per month during the non-breeding season. Natural England generally advises that two surveys per month | No further surveys required. | 'Yellow' |

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|---|---|---|---|---------------|
| | Humber Estuary SPA Humber Estuary Ramsar | - Pipeline route | during the winter and spring and autumn passage periods should be completed (with weekly visits during the autumn and spring passage periods where birds are likely to be present in the migration period only, due to high turnover of birds during migration). Based on the temporary nature of construction works of the pipeline route, Natural England considers that the survey frequency is sufficient to inform the assessment in this case. However, we advise that a precautionary approach should be taken to assessing the results in the HRA, with appropriate consideration given to potential limitations of the data, such as the potential for peak counts of SPA birds to have been missed. Discussions are ongoing with the applicant regarding the assessment of the survey results, and we consider this will be adequately addressed through the proposed updates to the Report to Inform the HRA. | | |

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|---|---|--|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| NE5 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | Non-breeding bird surveys (C) - Northern Compound | We note from Figure 3 of Appendix 6-7 that no bird surveys have been undertaken at the location of the Northern Compound, which is within 10km of the Humber Estuary SPA. The applicant has confirmed that the Northern Compound will be located within an arable field immediately south of the A160. This site has previously been used as a construction compound for other projects which have now been completed. The land at the Northern Compound was appraised for its suitability to support breeding and wintering birds during a scoping visit on the July 4th 2022 and again on 17th August 2022, and due to the proximity to a major road, was considered unlikely to be functionally linked (SoCG ref. 21). We welcome that further clarity will be provided in the updated Report to Inform the HRA. Natural England accepts this justification and agrees that likely significant effects from the loss of land at the Northern Compound can be screened out of the HRA. We therefore advise that this issue can be resolved. | Agreed updates required. | 'Green' |
| NE6 | International designated sites | HRA - Temporary loss of functionally linked land for | Table 7-1 of the HRA identifies likely significant effects on golden plover and curlew from temporary loss of functionally linked land. | Further information required. | 'Amber' |

| NE key issue ref | Natural England's de | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|---|--|---|---|---------------|
| | Humber Estuary SPA Humber Estuary Ramsar | non-breeding birds (C) LSE screening | However, Figures 13-31 of Appendix 6-7 indicate other qualifying SPA bird species, including lapwing and pink-footed goose, have been recorded in numbers greater than 1% of qualifying populations in proximity to the red line boundary. We advise that likely significant effects for lapwing and pink-footed goose cannot be screened out and should be included in the list of species in Table 7-1 for further assessment. Natural England welcomes that lapwing and pink-footed goose will be added into Table 7-1 in the updated Report to Inform the HRA (SoCG ref. 37). We advise that the appropriate assessment should consider the potential cumulative impact on these species across the project area (as per key issue NE3). | | |
| NE7 | International designated sites • Humber Estuary SPA | HRA - Noise and visual disturbance to non-breeding birds within functionally linked land (C and D) | Significant numbers of black-tailed godwit are present at Rosper Road Pools. We therefore advise that likely significant effects for black-tailed godwit cannot be screened out and should be included in the list of species in Table 7-1 for further assessment. Natural England welcomes that greater clarity will be provided in the updated Report to Inform the HRA on whether black-tailed godwit is taken forward to appropriate assessment (SoCG ref. 37). | Agreed updates required. | 'Yellow' |

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|---|---|--|---|---------------|
| | HumberEstuaryRamsar | LSE screening | Natural England considers the appropriate assessment for Rosper Road Pools to be sufficient to conclude no adverse effects on integrity for species present at Rosper Road Pools. | | |
| NE8 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA - Lighting disturbance to breeding and non-breeding birds within functionally linked land (C, O and D) LSE screening | We advise that further details should be provided on the proposed lighting across the project area, for all phases. We advise potential impacts from lighting should be considered at the HRA screening stage, proceeding to appropriate assessment where likely significant effects cannot be ruled out. Natural England welcomes that information on lighting will be provided in the updated Report to Inform the HRA (SoCG ref. 37) and we will review this once submitted. | Further information required. | 'Amber' |

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|---|---|--|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| NE9 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA - Noise and visual disturbance to breeding birds within functionally linked land (O) LSE screening - Dune Isolation Valve | We note from Table 7-1 of the HRA that likely significant effects from noise and visual disturbance to SPA breeding birds during operation has been screened out. However, section 4.2.30 of the Environmental Statement Volume I – Non-Technical Summary states maintenance to the Dune Isolation Valve is required. We advise that further assessment is required to determine potential impacts to SPA breeding birds at 'Viking Fields' during maintenance visits. The applicant has clarified that maintenance visits will require a maximum of two workers using hand tools or small powered hand tools. The applicant considers it unlikely that the minor maintenance works necessary to maintain the dune valve would create a disturbance event greater than existing baseline levels (SoCG ref. 37). The applicant has verbally confirmed it is expected that visual inspection of the dune value will occur once per month and maintenance visits will occur annually. Natural England welcomes that clarity will be provided in the updated Report to Inform the HRA. However, although the maintenance visits are expected to occur infrequently, there is still a possibility that works will be undertaken in proximity to nests and | Further information required. | 'Amber' |

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|-------|---|---|---|---------------|
| | | | have the potential to cause disturbance and nest abandonment. We advise that further assessment should be made on the suitability of habitat near to the dune valve, to assess if there is potential for SPA birds to nest to in close proximity to the working area. We will review this once submitted. | | |

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|---|---|---|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| NE10 | International designated sites • Humber Estuary SPA Humber Estuary Ramsar | HRA - Noise and visual disturbance to non-breeding birds within functionally linked land (O) LSE screening - Dune Isolation Valve | We advise that further assessment is required to determine potential impacts to SPA non-breeding birds at 'Viking Fields' during maintenance visits. The applicant has clarified that maintenance visits will require a maximum of two workers using hand tools or small powered hand tools. The applicant considers unlikely that the minor maintenance works necessary to maintain the dune valve would create a disturbance event greater than existing baseline levels (SoCG ref. 37). The applicant has verbally confirmed it is expected that visual inspection of the dune value will occur once per month and maintenance visits will occur annually. Natural England welcomes that clarity will be provided in the updated Report to Inform the HRA. Based on the information provided, we agree that likely significant effects to non-breeding birds from maintenance visits can be screened out of the HRA. We therefore advise that this issue can be resolved, subject to agreed updates to the shadow HRA. | Agreed updates required. | 'Green' |

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|---|--|---|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| NE12 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA - Temporary loss of functionally linked land for non-breeding birds (C) Appropriate Assessment | Justification is provided in section 7.3.8 of the HRA as to why the temporary loss of land will not have negative implications at the population level of SPA bird species. Natural England does not agree that the assessment is sufficient to rule out adverse effects on the Humber Estuary SPA in this case, due to the location of proposed works and number of SPA birds recorded within/adjacent to the construction area. Therefore, we advise that further assessment is required regarding the potential impacts to Humber Estuary SPA birds, in particular curlew, from temporary loss of functionally linked land during construction. Natural England highlights that loss of habitat may result in an increase in local bird densities and have consequences for individual bird fitness in terms of increased energy expenditure for flight, competition with other birds for food, and lack of knowledge of foraging resources in other areas which might make it more | Further information required. | 'Amber' |

| Table 1: NE key issue ref | issue | Issue summary (C) – construction | Natural England commentary and advice on the further information required to enable assessment | Natural England comment on the mechanism for | Risk (RAG) |
|------------------------------------|-------|--|---|---|---------------|
| | | phase (O) – operational phase (D) – decommissionin g phase | | securing mitigation/ compensation measures in the DCO/ deemed marine licence | |
| | | | difficult to find food (Mander et al., 2021 ¹). Consequently, this may lead to effects on breeding productivity and ultimately population | | |

¹ Mander, L., Scapin, L., Thxter, C., Forster, R. and Burton, N. (2021). Long-Term Changes in the Abundance of Benthic Foraging Birds in a Restored Wetland. Front. Ecol. Evol., Sec. Conservation and Restoration Ecology, Volume 9.

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|-------|---|---|---|---------------|
| | | | size (Baker et al., 2004 ² ; Piersma et al., 2016 ³ ; Studds et al., 2017 ⁴). Satellite tagging of curlews on the Humber has demonstrated that individuals are highly site faithful and forage within a short distance of their high tide roost sites. During the study period, curlew home ranges were found to be between 4.4 and 9.6 km2 (Cook et al, | | |

² Baker, A. J., Gonzalez, P. M., Piersma, T., Niles, L. J., de Lima Serrano do Nascimento, I., Atkinson, P. W., et al. (2004). Rapid population decline in red knots: fitness consequences of decreased refuelling rates and late arrival in Delaware Bay. Proc. R. Soc. London. Series B: Biol. Sci. 271, 875–882.

³ Piersma, T., Lok, T., Chen, Y., Hassell, C. J., Yang, H.-Y., Boyle, A., et al. (2016). Simultaneous declines in summer survival of three shorebird species signals a flyway at risk. J. Appl. Ecol. 53, 479–490.

⁴ Studds, C. E., Kendall, B. E., Murray, N. J., Wilson, H. B., Rogers, D. I., Clemens, R. S., et al. (2017). Rapid population decline in migratory shorebirds relying on Yellow Sea tidal mudflats as stopover sites. Nat. Commun. 8:14895

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|----------------------|---|--|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | 2016 ⁵). Displacement from foraging sites will therefore have consequences for the birds' fitness in terms of increased energy expenditure for flight, competition with other birds for food, and lack of knowledge of foraging resources in other areas which might make it more difficult to find food. Therefore, we advise further consideration should be given to potential impacts on curlew associated with displacement from known foraging areas. We advise further assessment is required on the scale and timing of construction (i.e. if cable works happening sequentially or simultaneously across the project area) during sensitive periods to understand cumulative impacts. We advise further assessment of available alternative roosting/feeding sites in proximity to the works areas is required. | | |

⁵ Cook, A.S.C.P., Turner, C., Burton, N.H.K. & Wright, L. J. (2016). *Tracking Curlew and Redshank on the Humber estuary*. BTO Research Report 688. British Trust for Ornithology, The Nunnery, Thetford, Norfolk IP24 2PU, UK.

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|----------------------|---|--|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | If impacts cannot be ruled out, it may be necessary to consider mitigation measures such as restrictions on the timing/extent of works at sensitive times of the year. Natural England welcomes that the baseline survey data will be reviewed in order to provide further clarification (SoCG ref. 37). Further detail should be provided on the sequence / timing of works and the availability of roost and feeding sites within the study area to provide context on the proportion of suitable habitat that would be affected at any one time. As detailed above (NE6), we advise that the assessment should include pink-footed geese and lapwing. Natural England welcomes the commitment to update the Report to Inform the HRA to provide further justification for conclusions on loss of functionally linked land (SoCG ref. 37) and will review this once submitted. Discussions are ongoing with the applicant regarding this. | | |

| Table 1: | Natural England's de | tailed advice | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| NE14 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA – Noise and visual disturbance to breeding birds within functionally linked land (C) Appropriate Assessment - Dune Isolation Valve | Section 4.2.29 of the Environmental Statement Volume I – Non-Technical Summary states a replacement valve is required. We advise that further clarification is provided in the HRA on the nature of this work and if it will also be restricted to August/September. Natural England notes that paragraph 7.3.13 of the Report to Inform the HRA states that all works at Viking Fields will need to be undertaken during August / September. We welcome that this paragraph will be updated to clarify that this includes replacement of the Dune Valve. We therefore advise that this issue is resolved, subject to agreed updates to the shadow HRA. | Agreed updates required. | 'Green' |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | | | |
|------------------------|---|---|---|---|---------------|--|--|--|--|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | | | |
| NE15 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA – Noise and visual disturbance to breeding birds within functionally linked land (C) Appropriate Assessment - Theddlethorpe Facility, Southern Compound | We note no assessment is provided regarding potential noise and visual disturbance impacts to breeding SPA birds using Viking Fields from works associated with the Theddlethorpe Facility and Southern Compound. Therefore, we advise that further information is required to determine potential impacts. LEM Natural England welcomes the commitment to update the Report to Inform the HRA (SoCG ref. 35) and will review this once submitted. | Further information required. | 'Amber' | | | | |
| NE16 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA – Noise and visual disturbance to non-breeding birds within functionally linked land (C) Appropriate Assessment | Section 7.3.16 of the HRA states that, with mitigation, average construction noise would be below the baseline. Section 7.3.19 of the HRA states 'noise fencing will be included for works within 500m of the relevant survey fields'. We advise that further detail is provided regarding the locations at which noise mitigation is required, taking into consideration our advice on functionally linked land assessment above (NE12). | Further information required. | 'Amber' | | | | |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | | | |
| | | - pipeline route and temporary compounds | Natural England welcomes that additional information will be provided in the updated Report to Inform the HRA outlining the sectors where noise fencing will be required (SoCG ref. 38) and we will review this once submitted. | | | | | | |
| NE17 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA – Noise and visual disturbance to non-breeding birds within functionally linked land (C and D) Appropriate Assessment - Immingham Facility | Section 7.3.12 of the HRA states that, with close-board fencing as mitigation, construction noise levels at Rosper Road Pools would be below the baseline. On the basis of the information provided, Natural England agrees with the conclusion of no adverse effects on the Humber Estuary SPA/Ramsar from of the project alone, subject to securing and adequate implementation of these mitigation measures. The applicant has clarified that there will be no contribution to any cumulative or in-combination noise effects at Rosper Road Pools (SoCG ref. 35). Based on the information provided, Natural England agrees there will be no adverse effects on integrity to | No further information required. | 'Green' | | | | |

| Table 1: | Natural England's de | tailed advice | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | species at Rosper Road Pools, subject to securing and adequate implementation of these mitigation measures. | | |
| NE18 | International designated sites • Humber Estuary SPA • Humber Estuary Ramsar | HRA – Noise and visual disturbance to non-breeding birds within functionally linked land (C and D) Appropriate Assessment | We note no assessment is provided regarding potential disturbance impacts to non-breeding SPA birds using 'Viking Fields' from works associated with the Theddlethorpe Facility and Southern Compound. Therefore, we advise that further information is required to determine potential impacts. Natural England welcomes the commitment to update the Report to Inform the HRA (SoCG ref. 35) and will review this once submitted. | Further information required. | 'Amber' |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | | |
|------------------------|---|---|--|---|---------------|--|--|--|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | | |
| | | Theddlethorpe Facility, Southern Compound | | | | | | |
| NE21 | International designated sites Saltfleetby – Theddlethorpe Dunes and Gibraltar Point SAC | HRA – Direct Habitat Loss or Degradation (C and D) | Clarification needed that no works/fencing/vehicle access will take place within the SAC. The applicant has confirmed that no works/ fencing/ vehicle access will be required within the SAC (SoCG ref. 38). We welcome that this will be further clarified in the updated Report to Inform the HRA Report. We therefore advise that this issue can be resolved, subject to agreed updates to the shadow HRA. | Agreed updates required. | 'Green' | | | |
| NE24 | International designated sites • Humber Estuary SPA | HRA – In- combination assessment at appropriate assessment stage | Natural England notes that Table 7-2 of the HRA considers incombination effects with other plans and projects. However, we advise that this table should identify where impacts have been fully avoided through mitigation and where there is still a residual impact that could act in-combination. This assessment should consider the residual effects of the identified developments acting | Further information required to determine requirement for further mitigation. | 'Amber' | | | |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | | |
|------------------------|--|---|--|---|---------------|--|--|--|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | | |
| | Humber Estuary Ramsar | general comments (C and O) | together. If mitigation or compensation has completely avoided or removed the effect, then this would not act in-combination with other projects. We note that section 7.4.4 of the HRA states 'Where similar impact pathways exist the mitigation that is proposed for both the other project and Proposed Development will collectively ensure that overall impacts are reduced to a non-significant level.' However, this does not take into consideration residual effects. Therefore, we advise that the in-combination assessment should be revised. Natural England welcomes that this will be made clearer and clarified within the updated Report to Inform the HRA (SoCG 35) and we will review this once submitted. | | | | | |
| NE25 | International designated sites • Humber Estuary SPA | HRA – Cumulative assessment (C and O) | In addition to the requirement for an in-combination assessment (outlined above), it is also necessary to consider the existing influences on the site which have affected and are continuing to affect the condition of relevant designated site features. These influences constitute what is referred to as the 'current environmental baseline'. A cumulative effect might arise when a | No further information required | 'Green' | | | |

| | Natural England's de | | | T | |
|------------------------|-------------------------------|---|---|---|---------------|
| NE key issue ref | Торіс | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | Humber Estuary Ramsar | | succession of individual impacts, which have each been previously assessed in isolation as being trivial or insignificant, accumulate over time to reach an incremental scale of loss which becomes adverse (or risks becoming adverse if it continues). The assessment should make reference to the Supplementary Advice on Conservation Objectives. Where the Supplementary Advice includes targets to <i>restore</i> an attribute of the site feature (such as habitat area or species population size), consideration should be given to whether cumulative impacts will hinder the restoration of these attributes. | | |
| | | | Natural England welcomes the further information provided and the commitment to include further references to the conservation objectives of the European sites in the updated Report to Inform the HRA (SoCG ref. 39). We agree that there is not a requirement for a separate cumulative assessment section and consider that the assessment and additional information adequately address this point (SoCG ref. 39). We therefore advise that this issue can be resolved, subject to agreed updates to the shadow HRA. | | |

| Table 1: | Natural England's de | tailed advice | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| NE26a | Soils and Best and Most Versatile Land | Survey Approach - Timing | Natural England consider the survey approach taken could be improved, whereby the ALC survey is undertaken pre-consent, to most accurately inform the ES. This is primarily as a pre-consent survey could input into the final route selection and project design, enabling further avoidance of Best and Most Versatile Land across all elements of the development. Nonetheless, for this development, with the commitment to undertake a detailed ALC survey post consent, and as a result of the small overall permanent land take (10.6.9, APP-052), commitments for restoration of the pipeline corridor (4.7.10, APP-096), and implementation of a soil management plan, undertaking detailed ALC survey post-consent is unlikely to make a material difference to our advice or the outcome of the decision-making process. | | 'yellow' |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | | | |
| NE26b | Soils and Best and Most Versatile Land | Survey Approach - Extent | oSMP Paragraph 1.1.5 (APP-052) states that the ALC survey will incorporate all land which will be subject to direct disturbance, however, direct disturbance has not been defined & the extent of the survey is unclear. Natural England consider that the ALC survey should cover the whole development area, in line with the DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, BSSS guidance and loQ guidelines. There is a risk of soil damage, ALC degradation and long term or permanent loss of BMV. Soil will need to be handled according to best practice and reinstated to a high standard to reduce the impacts. The results from a detailed ALC survey would provide soils data to inform the soil management plan for the whole site regardless of whether the use is permanent or temporary in nature. ALC survey should normally be at a detailed level, e.g. one auger boring per hectare, supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres. We welcome the commitment of the oSMP for soil data collected as part of the ALC survey to be used | Further information/clarity required | 'amber' | | | | |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | | |
|------------------------|--|---|--|---|---------------|--|--|--|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | | |
| | | | to inform the soil resource and management plan, in line with the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. | | | | | |
| NE26c | Soils and Best and Most Versatile Land | Outline Soil Management Plan – (C and O) Reinstatement of agricultural land | Natural England welcome use of the 'Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009)' to guide soil management during construction. Where soils are being reinstated, we welcome the commitment to reinstate soils to their pre-development agricultural use (4.7.10, APP-096). Alongside this, Natural England welcome the acknowledgement at oSMP paragraph 4.12.5 that 'The main objective for the restoration of agricultural land is to reinstate the land to its original (pre-development) Agricultural Land Classification (ALC) grade'. Natural England consider there should be a specified & clearly stated commitment for 'best and most versatile' (BMV) agricultural land temporality disturbed during construction to be returned to its original ALC grade. To achieve this, the proposed restoration soil profiles should be provided in the detailed oSMP. Details should include the target | Further information/amen dments required | 'amber' | | | |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | |
|------------------------|--|---|--|---|---------------|--|--|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | |
| | | | soil profiles to be reinstated (soil volumes, soil textures, soil depth, stone content, likely depth to slowly permeable layers, moisture balances etc) and their predicted ALC grade where appropriate. Decommissioning: Paragraph 4.5.1 of the Decommissioning Strategy Plan (APP-072) notes that Block Valve locations may be restored to agricultural use. Similarly to the above, where soils at these locations are to be reinstated, there should also be a specific commitment for 'best and most versatile' (BMV) agricultural land to be returned to its original Agricultural Land Classification (ALC) grade. | | | | |
| NE26d | Soils and Best and Most Versatile Land | Outline Soil Management Plan – (C and O) Soil handling in wet conditions | oSMP paragraphs 4.2.7 & 4.5.6 (APP-096) discusses soil handling in wet conditions. All soils should only be handled in a dry and friable condition, and it is expected that soil handling will be confined to the drier summer period to minimise risk of soil damage. Soil handling methods should normally be as specified in the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (including accompanying Toolbox Talks). | Further information required | 'amber' | | |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | | |
| | | | Soil handling should normally be avoided during 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. Natural England note this is recognised as part of the additional mitigation and enhancement measures (ES para 10.8.1 B16, APP-052) to be adopted during the construction phase, therefore soil handling methodology across the two documents is inconsistent. Please could the Applicant confirm what is proposed. | | | | | |
| NE26e | Soils and Best and Most Versatile Land | Outline Soil Management Plan – (C) Topsoil and subsoil storage | oSMP paragraph 4.5.1 discusses topsoil and subsoil storage. In all cases topsoil and subsoil must be separately handled to avoid mixing. Where soils are stored, the different soil types will need to be kept separated in the storage bunds. This should be reflected in the Restoration Plans (1-12), accompanied with a detailed soil balance. | Amendment to oSMP required | 'amber' | | | |

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|--|---|---|---|---------------|
| NE26f | Soils and Best and Most Versatile Land | Outline Soil Management Plan – (C) Stockpiles | oSMP paragraph 4.7.5 (APP-096) discusses stockpile height. Best practice advises topsoil bunds shall not exceed 3 m in height and subsoil (or subsoil substitute) bunds shall not exceed 5 m in height. There is an increased risk of soil compaction when increasing height of storage mounds, particularly where long term storage is expected. As a result, exceeding these heights should be avoided unless absolutely necessary and agreed by a suitably qualified specialist. Mowing and stripping should not be carried out during wetter periods when soils moisture content exceeds their lower plastic limit. Tracking of heavy machinery for maintenance interventions will increase the risk of soil compaction. | No further information required | 'yellow' |
| NE26g | Soils and Best and Most Versatile Land | Outline Soil Management Plan – (C, O and D) Decompaction | oSMP paragraphs 4.12.6 and 4.12.15 discuss decompaction. The depth of decompaction should reflect the depth of compaction. Additionally, 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 | No further information provided | 'yellow' |

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
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| | | | Sheet O.pdf (hubspotusercontent30.net) | | |
| NE27 | Protected Species | Protected species – (C and O) | Natural England has adopted standing advice 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 ES for this project. A separate protected species licence from Natural England or Defra may be required. Applicants should refer to the guidance at Wildlife licences: when you need to apply to check to see if a mitigation licence is required. Applicants can also make use of Natural England's charged service Pre Submission Screening Service 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 Advice Note Eleven, Annex C – Natural England and the Planning Inspectorate National Infrastructure Planning for details of the LONI process. | Requirement for mitigation not assessed by Natural England. | 'grey' |

| Table 1: | Natural England's de | tailed advice | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g phase | information required to enable assessment perational missionin | | Risk (RAG) |
| | | | Natural England have released a countersigned IACPC to the customer via our District Level Licencing Scheme for Great Crested Newts. Natural England have not received any further correspondence in relation to other protected species licences. | | |
| NE28 | Biodiversity Net Gain (BNG) | Biodiversity Net Gain (BNG) | The Environment Act 2021 includes NSIPs in the requirement for Biodiversity Net Gain (BNG). The biodiversity gain objective for NSIPs is defined as at least a 10% increase in the predevelopment biodiversity value of the on-site habitat. It's the intention that BNG should apply to all terrestrial NSIPs accepted for examination from November 2025. This includes the intertidal zone but excludes the subtidal zone. | No further information required | 'Grey' |

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|-------|---|---|---|---------------|
| | | | We welcome the commitment to delivering BNG on this project. We recommend that the target increase in BNG of at least 10% across all biodiversity unit types is secured by a suitably worded requirement in the DCO. Natural England has not reviewed the draft BNG strategy and assessment in depth. | | |
| | | | In addition to the applicant's intent to link current BNG sites to new proposals we would advise that opportunities are explored to extend appropriate habitats to designated sites. | | |
| | | | The biodiversity baseline should include all land contained within the site's red line boundary and proposals can be iteratively refined over time and throughout detailed design. | | |
| | | | We encourage developers to: | | |
| | | | develop BNG proposals in adherence with well-established BNG principles: | | |

| Table 1: | Table 1: Natural England's detailed advice | | | | |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | BS 8683:2021 Process for designing and implementing Biodiversity Net Gain CIEEM/IEMA/CIRIA good practice principles (2016) and guidance (2019). use the Defra biodiversity metric to calculate BNG and adhere to the rules and principles set out within the metric guidance. Biodiversity gains should be secured for a minimum of 30 years and be subject to adaptive management and monitoring. BNG plans should be secured by a suitably worded requirement in the DCO. | | |
| NE29a | Protected Landscapes | Lincolnshire Wolds National Landscape - Assessment of alternatives | Comment: Natural England advises that the ES does not include a full justification as to why the project cannot avoid the Lincolnshire Wolds National Landscape. Recommendation • A full justification behind the need to directly impact the National Landscape should be provided, inclusive of why | Further information required | 'Amber' |

| Table 1: | Natural England's de | etailed advice | | | |
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| | | | route Option B1 is the only valid alternative route that directly avoids the National Landscape, and why Option B2A is the preferred route given that this option cuts through the National Landscape directly—with open trenching—and abuts it for around 3km along the A18 boundary (AS-020). | | |
| NE29b | Protected Landscapes | Lincolnshire Wolds National Landscape - Assessment of special qualities | Comment Natural England do not consider that a full assessment of the impacts on special qualities has been provided, and therefore cannot agree with the conclusion that potential landscape effects on the Lincolnshire Wolds National Landscape are not significant for the purposes of EIA (minor adverse effects during construction reducing to negligible adverse during operation, paragraph 7.12.1, APP-049). Recommendation | Further information required | 'Amber' |
| | | | Assess impacts to all relevant special qualities, including chalk streams. | | |

| Table 1: | Table 1: Natural England's detailed advice | | | | |
|------------------------|--|---|--|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | Distinguish between effects on defined special qualities grouped under the heading "landscape character". We recommend that the effects of the proposed scheme on the special qualities of the Lincolnshire Wolds National Landscape are provided in table format. | | |
| NE29c | Protected Landscapes | Lincolnshire Wolds National Landscape - Extent of protected landscape to be impacted | Comment Natural England cannot agree with the conclusion to the assessment of impacts to special qualities provided, which is that "the affected section of the AONB would be small in extent and any impacts would be of short duration and reversible" (paragraph 7.8.82, APP-049). Recommendation Remove reliance in the assessment on the mitigating effect of geographic extent on the assessed harm to the special qualities. Provide details on which elements of the project have been assessed as being situated within the setting of the Lincolnshire Wolds National Landscape | Further information required | 'Amber' |

| | Natural England's | | | T | T = - |
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| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | A key embedded mitigation measure for the Lincolnshire Wolds National Landscape is a short construction timeframe. Clarity is needed on the expected timeframe for works in the Lincolnshire Wolds National Landscape. Further clarity on whether the route can be fully and successfully reinstated. | | |
| NE29d | Protected Landscapes | Lincolnshire Wolds National Landscape - Residual landscape effects during operation | Comment Natural England advises that the evidence presented does not rule out the persistence of significant residual effects on the statutory purposes of the Lincolnshire Wolds National Landscape within the operational phase. Recommendation A list of the potential impacts to the Lincolnshire Wolds National Landscape that are not fully reversible, and their significance. Remove reliance on the mitigating effect of remaining field boundaries in the landscape when concluding the impact of | Further information required | 'Amber' |
| | | | boundaries in the landscape when concluding the impact of hedgerow loss with potential to affect the Lincolnshire Wolds National Landscape. | | |

| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|-------------------------|---|--|---|---------------|
| | | | Clarify the maximum hedgerow removal distance. | | |
| NE29e | Protected Landscapes | Lincolnshire Wolds National Landscape – Cumulative effects | Comment Natural England advise that the assessment of cumulative effects should include an assessment of the impacts of relevant proposals currently at scoping stage, such as the Grimsby to Walpole National Grid project (Section 7.11, APP-049). Recommendation Provide justification as to whether the assessment of cumulative effects should include the Grimsby to Walpole National Grid project. | Further information required | 'Amber' |
| NE29f | Protected Landscapes | Lincolnshire Wolds National Landscape – Visible surface infrastructure | Comment Natural England advise that all visible surface infrastructure is considered within the landscape and visual assessment, inclusive of the temporary access and laydown areas, one of which includes HGV parking and hard infrastructure within the Lincolnshire Wolds National Landscape boundary near Irby upon Humber (Chapter 3, Figure 3-30 1 of 3, APP-045). | Further information required | 'Amber' |

| Table 1: | Natural England's | detailed advice | | | |
|------------------------|-------------------------|---|--|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | Provide justification that all visible surface infrastructure is considered within the landscape and visual assessment. Ensure the landscape and visual assessment considers the impact of temporary access and laydown areas. | | |
| NE29g | Protected Landscapes | Lincolnshire Wolds National Landscape – Route reinstatement | Comment Natural England advise that there is a need for clarity on whether the route can be successfully reinstated. Recommendation The ES should include a clear assessment, based on a full survey of the route, of the potential for and risks to full reinstatement of the route within the Lincolnshire Wolds National Landscape and its setting. Information should be provided on the feasibility and risks of using trenchless methods for avoiding trees, including the suitability of a 2m minimum depth under trees. | Further information required | 'Amber' |

| Table 1: | Natural England's de | tailed advice | | | |
|------------------------|-------------------------|---|---|---|---------------|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
| | | | The LVIA should reference the Soil Management Plan, which is important in ensuring the land is restored suitably to enable successful vegetation reinstatement. We advise that information is supplied on whether the trenchless methods described risk disturbing sensitive chalk streams, and what residual impacts could occur. Clarity is sought on any requirement for signage along the route of the pipeline during the operation. | | |
| NE29h | Protected Landscapes | Lincolnshire Wolds National Landscape – Monitoring | Comment Natural England advise that there is a need for clarity on what monitoring arrangements will be put in place and what remedial works might be undertaken if an adequate level of reinstatement is not being achieved. Recommendation • Provide more information on what monitoring arrangements will be put in place and what remedial works might be undertaken if an adequate level of reinstatement is not being achieved. | Further information required | 'Amber' |

| NE key issue ref | Natural England's de Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) |
|------------------------|----------------------------|---|--|---|---------------|
| | | | Ensure the outline Landscape and Ecological Management Plan includes the Landscape Design Principle (embedded mitigation) for monitoring. Provide clarity on when the detailed plan for the establishment and management of new hedgerows will be developed. | | |
| NE29i | Protected Landscapes | Lincolnshire Heritage Coast | The proposal is located partly within/within an area which Natural England has assessed as meeting the criterion for designation as a Heritage Coast. Whilst this assessment process does not confer any additional planning protection, the impact of the proposal on the natural beauty of this area may be a relevant matter in the determination of the proposal. At present, Natural England considers the Lincolnshire heritage Coast to be a valued landscape in line with paragraph 180 of the National Planning Policy Framework (NPPF). Without formal definition of the landscape and it's special character, specific assessment of the impact on the landscape is not possible. Nonetheless, NE consider that any infrastructure development should consider its impact on the area, reflect or enhance its intrinsic character and natural | No further information required | 'Grey' |

| Table 1: | Table 1: Natural England's detailed advice | | | | | | |
|------------------------|--|---|---|---|---------------|--|--|
| NE key issue ref | Topic | Issue summary (C) – construction phase (O) – operational phase (D) – decommissionin g 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/ deemed marine licence | Risk (RAG) | | |
| | | | beauty and be in line with relevant National Policy Statements and development plan policies. A new Heritage Coast is formally defined once a Memorandum of Agreement is signed by Natural England and the local authorities which cover the area. Following signing of the agreement planning policies and decisions should be consistent with the special character of the area and the importance of its conservation, in line with NPPF Paragraph 184 and NPS EN-1 sections 5.6.13, 5.10.10 and 5.10.11. | | | | |

Natural England's Written Representations

4. PART III: Natural England's response to the Examining Authority's (ExA's) first written questions with a deadline of 26 April 2024

| Table 2: N | able 2: Natural England's response to Examiner's initial questions | | | | | |
|------------|---|---|--|--|--|--|
| ExA | Question | Question | Answer | | | |
| questio | addressed | | | | | |
| n ref | to | | | | | |
| 1.7.27 | Applicant, Natural England (NE), Environment Agency (EA), Historic England (HE) | Requirement 5 Are there other bodies, such as NE, EA and HE and/or local groups that should be consulted, along with those already identified? If so, please amend as necessary, if not please explain. Please clarify how long the parties would be given to review and comment on the documents? | Natural England does not need to be consulted on the final CEMP for this project. However, we highlight that any mitigation measures relied upon in the conclusions of the shadow HRA should be included in the draft and final CEMP. We also refer to our outstanding comments regarding the assessment of impacts and required mitigation measures. Therefore, we may have additional comments on the draft CEMP, as discussions on proposed mitigation measures progress. | | | |
| 1.8.6 | Environment Agency, Natural England | Invasive Non-Native Species (INNS) The Applicant has identified that invasive non-native species are present in the Order Limits [APP-048]. Mitigation measure B1 suggests a management plan will be prepared to ensure such species do not spread. 1) Is it considered, given the species identified, that any specific measures need to be taken and/or committed to now? 2) Should the project adopt a more proactive policy of seeking to remove such species where encountered along | Natural England consider the INNS identified at the site are unlikely to cause a significant effect to any designated sites; as such, have no detailed comments to make in this regard. Nonetheless, we welcome the intent to develop an INNS Management Plan as part of the CEMP to prevent the spread of INNS; would always encourage a proactive | | | |

| | | the pipeline-laying route? 3) Would micro-siting around such INNS be an appropriate technique with assured biosecurity? | approach to removal of INNS wherever possible and/or feasible. |
|--------|--|--|---|
| 1.8.9 | Natural England, All Local Authorities | Cumulative Effects State whether or not the Applicant's approach to scoping and identifying likely cumulative effects, and the subsequent conclusions drawn within ES Chapter 6 is acceptable and inclusive [APP-048, section 6.11]? | Natural England has no comments to make on the approach to scoping and identifying likely cumulative effects. We have no specific additional comments to make on the conclusions drawn within ES Chapter 6; however, we highlight that discussions are ongoing regarding potential intra-project effects from disturbance to functionally linked land during construction (NE3, NE12) |
| 1.9.3 | Natural England, All Interested Parties | Methodology Are NE (and others) content that the Applicant has used an appropriate methodology and guidance to inform the assessments and calculation of effects' significance in ES Chapter 6 [APP-048, Paragraph 6.4.9]? | Natural England has no comments to make on the methodology and guidance to inform the assessments and calculation of effects' significance in ES Chapter 6. |
| 1.9.11 | Natural England, All Local Authorities | Cumulative effects In ES Chapter 6 [APP-048, Paragraph 6.11.4] it states that because ecological reports had not been submitted for other developments, it had not been possible to assess potential cumulative effects. This reasoning appears elsewhere across the ES as well. Are there any concerns about the Applicant's approach to determining or calculating cumulative effects or is the justification for not considering certain developments justified in this instance? | Natural England accepts that because ecological reports had not been submitted for other developments, it has not been possible to assess potential cumulative effects in detail for this project. We consider that the potential for cumulative effects between these projects should be assessed in detail in the assessments for the subsequent projects. |

| Natural England's detailed advice in relation to soils and the oSMP is contained within our written representations (NE26a-g). (NE26a-g). |
|--|
| Natural England considers that the existing assessment of potential water quality impacts in the Report to Inform the HRA also applies to potential impacts on functionally linked land associated with the Humber Estuary SPA. Natural England considers that the existing assessment of potential water quality impacts in the Report to Inform the HRA also applies to potential impacts on functionally linked land associated with the Humber Estuary SPA. Natural England agrees that, with the embedded mitigation and a Construction Environmental Management Plan described in paragraph 6.2.63 of the Report to Inform the HRA, impacts from run-off are predicted to be short term, intermittent and spatially local. We agree with the conclusions in paragraph 6.2.66 that there will be no likely significant effects from changes in water quality and this pathway of effect can be screened out. |
| Natterjack toads are not known to be present in the location of the Dune Valve Station or access route. NE consider the key sensitivities of the species to be loss and damage to suitable habitat. As a result, other possible disturbance effects of the works at the Dune Valve station |
| ac p |

| | | 6.2.93, 7.3.39]. Are NE content that the works to the Dune Valve Station (and access thereto, including use of a crane [AS-026, Paragraph 6.2.130]) would not cause other pathways of effect to occur (for example from noise and visual disturbance, vibration or dust)? | are considered minor, and unlikely to cause a significant effect on Natterjack toads associated with the nearby designation. In addition, Tables 2 and 7, at Appendix G and H of the Report to inform the HRA (AS-026), respectively, indicate that the impact of dust and particulates have been assessed regarding Natterjack toad; it is considered that with the implementation of the CEMP, no adverse effect on the species is considered likely. NE concurs with this conclusion. Nonetheless, it is a protected species; therefore if Natterjack toads are identified during works, a Mitigation Licence would be required to continue. |
|--------|----------------------------------|--|---|
| 1.12.8 | Applicant, Natural England | Grey seals No Adverse Effects on Integrity (AEoI) is predicted in respect of the grey seal feature of the Humber Estuary Special Area of Conservation (SAC) [AS-026, Paragraph 6.2.91]. This is due to the breeding site being 13.25km north of the Proposed Development. For the purposes of clarity, are there no recorded seal haul-out sites (or other records of seal foraging activity) in proximity to the Saltfleetby-Theddlethorpe Dunes and Gilbraltar Point SAC? | No seal haul out sites are known to be present within proximity to the proposed development. Natural England does not consider that there are any potential impacts on seal haul-out sites from the proposed development. |
| 1.12.9 | Natural England | Noise and disturbance mitigation | As per the key issues NE3 and NE12 above, further assessment is required on the sequence / timing of works |

| | | Does NE consider that the simple erection of close-boarded fencing would sufficiently reduce noise and disturbance to a level whereby an AEoI can be ruled out [AS-026, Paragraphs 7.3.12, 7.3.19 et al]? | and the availability of roost and feeding sites within the study area to provide context on the proportion of suitable habitat that would be affected at any one time and determine whether additional mitigation measures, such as restrictions on the timing/extent of works at sensitive times of the year, may be required. Therefore, there is currently not enough information to agree that the erection of close-boarded fencing is sufficient mitigation. However, we will continue discussions with the applicant on this topic. |
|---------|----------------------------------|--|---|
| 1.12.10 | Natural England | Pink-footed geese mitigation Given the abundance of pink-footed geese in the locality [AS-026], are the mitigations proposed by the Applicant sufficient to rule out an AEoI? If not, what measures should be adopted? | As per the key issues NE3 and NE12 above, further assessment is required on the sequence / timing of works and the availability of roost and feeding sites within the study area to provide context on the proportion of suitable habitat that would be affected at any one time and determine whether additional mitigation measures, such as restrictions on the timing/extent of works at sensitive times of the year, may be required. |
| | | | There is currently not enough information to agree that the proposed mitigation is sufficient. However, we will continue discussions with the applicant on this topic. |
| 1.12.11 | Applicant, Natural England | Red-throated diver assessment and mitigation The ExA notes from NE's relevant representation [RR-073] that there are no concerns regarding the Greater Wash SPA. Nonetheless, the ExA notes that the Applicant states | Red Throated-Diver are a seabird; Conservation advice for the species states that: 'Red-throated diver do not return to land during the non-breeding season, spending time rafting and fishing in shallow coastal waters'. As a result, |

| | red throated diver from the Greater Wash SPA, whilst not present in the Order Limits, may fly over the Proposed Development [AS-026, Paragraph 6.2.147]. The species is known to demonstrate high levels of avoidance and subsequent displacement effects may occur. 1) Why has displacement not been considered as a potential pathway of effect, particularly given the 25m stack at Theddlethorpe? 2) How much more of a likely significant effect would occur if the 'emergency' 50m stack were to be erected? | significant effects upon this species from onshore development may be unlikely. Nonetheless, Natural England would be pleased to review the information/assessment provided when the Applicant has responded to this question. |
|-------------------------|---|--|
| 1.12.13 Natural England | Position Statement The content of [RR-073] is fully acknowledged and clear. However, for the purposes of full disclosure, please can the following questions be briefly responded to: 1. Can NE confirm whether or not the HRA screening matrices [AS-026, Appendices G and H] are complete and acceptable? If not, why not? 2. Are NE satisfied that the amount of survey data used to inform the HRA and Appropriate Assessment is both sufficient and robust to reach reasoned scientific judgements? If there are perceived deficiencies, explain what these are and the concerns that emerge from this. 3. Can NE confirm whether or not it agrees with the Applicant's conclusions regarding potential for likely significant effects? It may be beneficial to use the table [AS-026, Table 7-1] and add a column to | Can NE confirm whether or not the HRA screening matrices [AS-026, Appendices G and H] are complete and acceptable? If not, why not? Appendix G Natural England considers that, with the above agreed updates, the information in the screening matrices in Appendix G to be complete and acceptable. As per key issue NE8, we advise that impacts from lighting should be considered at the screening stage. As per key issue NE7, we advise black-tailed godwit should be screened in for further assessment on noise and visual disturbance at Rosper Road Pools. Appendix H Natural England's position is that the matrices in Appendix H cannot be considered complete until the outstanding |

| confirm NE's agreement or disagreement. If there |
|--|
| is disagreement, please set out the reasons. |

4. Can NE confirm its position, in tabular format, at this stage whether an AEoI can be ruled out in respect of each designated European site. This table may be updated during the Examination as, when and if NE's position changes. If the Applicant's AEoI conclusions are disputed, please explain why in separate free-flowing text. 'amber' issues are resolved. Please refer to our advice on NE3, NE6, NE8, NE9, NE12, NE15, NE16, NE18, NE24 for further detailed advice on these issues.

Table 9 of appendix H contains tick marks against an Adverse Effect on the Integrity of Saltfleetby-Theddlethorpe Dunes and Gibraltar Point SAC from Dust and Particulates during construction and decommissioning. This is assumed to be a mistake, as the rationale at footnote 'c' (and at para 7.3.25 of AS-026) explains how effects have been ruled out when considering implementation of the CEMP. This should be updated for clarity.

2. Are NE satisfied that the amount of survey data used to inform the HRA and Appropriate Assessment is both sufficient and robust to reach reasoned scientific judgements?

Natural England are satisfied with the amount of survey data used to inform the HRA and Appropriate Assessment. We consider that our previous advice regarding NE4 and NE5 has been adequately addressed, as detailed above.

3. Can NE confirm whether or not it agrees with the Applicant's conclusions regarding potential for likely significant effects? It may be beneficial to use the table [AS-026, Table 7-1] and add a column to

confirm NE's agreement or disagreement. If there is disagreement, please set out the reasons. Natural England agrees with the applicants' overall conclusions regarding potential for likely significant effects in Table 7-1. As per key issues NE6 and NE7, we have advised that additional SPA bird species are screened in for further assessment. 4. Can NE confirm its position, in tabular format, at this stage whether an AEoI can be ruled out in respect of each designated European site. This table may be updated during the Examination as, when and if NE's position changes. If the Applicant's AEoI conclusions are disputed, please explain why in separate free-flowing text. As per the key issues noted above, Natural England considers there is not currently enough information for adverse effects on integrity to be ruled out for the following pathways: Humber Estuary SPA/Ramsar • Temporary loss of functionally linked land on the pipeline route (construction) Noise and visual disturbance to birds using functionally linked land on the pipeline route (construction)

| 1.12.15 | Applicant, Natural England | Marine Environment NE recommends the terrestrial and marine aspects are considered at a holistic level because the Proposed Development is intrinsically linked to an offshore project [RR-073]. 1) What implications does / would this have on the HRA carried out to date? 2) How should the competent authority approach or consider such matters when undertaking the Appropriate Assessment? | Disturbance to breeding birds at Viking Fields during dune valve maintenance (operation) Disturbance to breeding and non-breeding birds at Viking Fields from works at the southern compound and Theddlethorpe facility (construction and decommissioning) Lighting disturbance to birds across the development area (construction, operation, decomissioning) We welcome the Applicant's commitment to provide updated assessments for these key issues, and we will review these once submitted. Natural England considers adverse effects on integrity can be ruled out for all other pathways and European sites. Natural England are unable to provide a detailed answer to this question at this stage. The matter is the subject of wider internal discussions which are as yet unresolved. We would request that an answer to this question could be submitted at the next deadline (D2 – 17th May 2024). |
|---------|----------------------------------|--|--|
| 1.13.9 | Natural England, | Protected Landscapes | Natural England's detailed advice relating to protected landscapes is contained within our written representations |

| Local | Are NE and the Local Authorities satisfied with scope of | (NE29a-i). We are not yet satisfied with the assessment of |
|-------------|---|--|
| Authorities | mitigation measures (including how it is secured) for the | the impact of the development on the Lincolnshire Wolds |
| | section of AONB within the Order Limits? Have the | National Landscape. We will continue to work with the |
| | impacts and mitigation been satisfactorily dealt with for | applicant to overcome our concerns on these matters. |
| | potential impacts on Lincolnshire Heritage Coast? | |
| | | |

Natural England's Written Representations

5. PART IV: Natural England's detailed comments on the draft Development Consent Order (DCO) (AS-040)

5.1. Part IV of these Representations provides Natural England's detailed comments on the draft DCO (AS-040).

Natural England's Relevant Representations, Part IV, Table 3

| Page | DCO/DML or Omission ref | Natural England's comments |
|------|--|--|
| 15 | Article 19 Authority to survey and investigate the land | Natural England highlights that any operations outside of red line boundary (order limits) should require appropriate permissions, including consent/assent from Natural England for any planned activity that's likely to damage any SSSI or land near the site's boundary - i.e. survey work, intrusive site investigations (boreholes etc). |
| 58 | Requirement 5 Construction environmental management plan | Natural England welcomes the commitment to secure the Construction Environmental Management Plan (CEMP). However, we refer to our outstanding comments regarding the assessment of impacts and required mitigation measures. We welcome further discussion on these topics and highlight that any mitigation measures relied upon in the conclusions of the shadow HRA should be included in the CEMP. |
| 60 | Requirement 11 Landscape and ecological management plan | Natural England welcomes the commitment to secure the Landscape and Ecological Management Plan (LEMP). |
| 60 | Ecological Surveys | Natural England welcomes the commitment to avoid commencement until Survey Work has shown no European protected species would be affected by the development. |

| Page | DCO/DML or Omission ref | Natural England's comments |
|----------|---|---|
| | | We would recommend that this requirement could be extended to state that no work that may affect a European protected species shall commence until the relevant licence is obtained. |
| 61 | Requirement 14 | Natural England welcome the inclusion of this requirement. |
| | Restoration of Land | As noted within our representations regarding Soils and Best and Most Versatile Land (NE26c), this commitment could be amended to specify that any BMV land temporarily disturbed by the development must be returned to its former ALC grade. |
| 61 | Requirement 15 Operational and maintenance environmental management plan | Natural England welcomes the commitment to secure the operational and maintenance environmental management plan (or plans). However, we refer to our outstanding comments regarding the assessment of impacts and required mitigation measures. We welcome further discussion on these topics and highlight that any mitigation measures relied upon in the conclusions of the shadow HRA should be included in the operational and maintenance environmental management plan (or plans). |
| Omission | Biodiversity Net Gain requirement | At present, the DCO does not contain a requirement for the delivery of a minimum of 10% Biodiversity Net Gain. The ES makes clear the intention for a minimum of 10% BNG to be delivered; as such, NE consider a requirement should be included to secure this. |

Annex A Protected Landscape Advice provided to the Applicant (28/03/2024)

Introduction

Natural England is the national landscape agency and designating authority for National Landscapes. Please note that Natural England only provides landscape planning advice for schemes or elements of schemes which affect National Parks and AONBs. Accordingly, these comments only relate to the landscape and visual effects associated with the statutory purposes of the Lincolnshire Wolds National Landscape from the construction and operation of the Viking CCS Pipeline situated within the Lincolnshire Wolds National Landscape, and the greater proportion of the project situated within its setting.

To assist the Examining Authority (ExA), the advice provided in this response is high-level and is focused on key points that Natural England raised in the Preliminary Environmental information Report (PEIR) which remain outstanding. In addition, we provide comments on the assessment of the statutory purpose of the Lincolnshire Wolds National Landscape, and the potential effects on the special qualities which underpin its designation. Particular attention should be given to the detailed advice provided by the Lincolnshire Wolds National Landscape Partnership, including on viewpoint locations, since their local knowledge is of a greater depth than can be provided by Natural England.

Section 245 (Protected Landscapes) of the Levelling Up and Regeneration Act 2023 places a duty on relevant authorities in exercising or performing any functions in relation to, or so as to affect, land in a National Park, the Broads or an Area of Outstanding Natural Beauty ("National Landscape") in England, to seek to further the statutory purposes of the area. The duty applies to local planning authorities and other decision makers in making planning decisions on development and infrastructure proposals, as well as to other public bodies and statutory undertakers.

It is anticipated that the government will provide guidance on how the duty should be applied in due course.

In the meantime, and without prejudicing that guidance, Natural England advises that:

- the duty to 'seek to further' is an active duty, not a passive one. Any relevant authority
 must take all reasonable steps to explore how the statutory purposes of the protected
 landscape (A National Park, the Broads, or an AONB) can be furthered;
- The new duty underlines the importance of avoiding harm to the statutory purposes of protected landscapes but also to seek to further the conservation and enhancement of a protected landscape. That goes beyond mitigation and like for like measures and replacement. A relevant authority must be able to demonstrate with reasoned evidence what measures can be taken to further the statutory purpose;
- The proposed measures to further the statutory purposes of a protected landscape, should explore what is possible in addition to avoiding and mitigating the effects of the development, and should be appropriate, proportionate to the type and scale of the development and its implications for the area and effectively secured. Natural England's view is that the proposed measures should align with and help to deliver the aims and objectives of the designated landscape's statutory management plan. The relevant protected landscape team/body should be consulted.

Summary of Advice

- 1- Natural England's advice remains that a full justification as to why the project cannot avoid direct impacts to the Lincolnshire Wolds National Landscape is outstanding.
- 2- Natural England advise that a full assessment of the impacts on special qualities has not been provided, and therefore we cannot agree with the conclusion that potential landscape effects on the Lincolnshire Wolds National Landscape are not significant for the purposes of EIA.
- 3- Natural England advises that there is the potential for significant residual landscape and visual effects on the statutory purposes of the Lincolnshire Wolds National Landscape during construction and operation.

Further information is sought principally on the need to directly impact the Lincolnshire Wolds National Landscape; the impacts on special qualities; mitigation, including the use of trenchless methods; and whether the route can be successfully reinstated.

Detailed comments

- 1. Clarity is needed on why alternative routes (avoiding the Lincolnshire Wolds National Landscape altogether) have been discounted.
 - 1.1. In accordance with national policy requirements (current EN-1, paragraph 4.3.15) the Environmental Statement (ES) should include details of the reasonable alternatives to installing a pipeline within a National Landscape. Natural England advises that the ES does not include a full justification as to why the project cannot avoid the Lincolnshire Wolds National Landscape.
 - 1.1.1. Natural England acknowledges that a route selection exercise is described (ES Volume II Chapter 2: Design Evolution and Alternatives Revision A Tracked) with route Option B1 providing an alternative route that avoids installing a pipeline within the Lincolnshire Wolds National Landscape. The Applicant considers route Option B1 as unsuitable on environmental grounds "due to the potential interaction (and associated impacts) with the granted solar farm planning permission south of Bradley Wood" (Table 2-2).
 - 1.1.2. Natural England advises that a full justification behind the need to directly impact the Lincolnshire Wolds National Landscape should be provided, inclusive of why route Option B1 is the only valid alternative route that directly avoids the National Landscape, and why Option B2A is the preferred route given that this option cuts through the National Landscape directly—with open trenching—and abuts it for around 3km along the A18 boundary.
- 2. Comments regarding the assessment of effects on the Lincolnshire Wolds National Landscape and associated mitigation.
 - 2.1. Approximately 2.4km of the Viking CCS Pipeline is situated within the Lincolnshire Wolds National Landscape (section 3), 3km of the pipelines abuts the designation, and an unspecified proportion of the project sits within its setting (likely to include some areas of sections 2, 3 and 4).
 - 2.2. Natural England welcomes that the landscape and visual assessment (APP-049) assigns the highest level of landscape value (page 7-41) and sensitivity (paragraph 7.8.10) to the Lincolnshire Wolds National Landscape.
 - 2.3. In accordance with national policy requirements (current EN-1, paragraph 5.10.19) the landscape and visual assessment should include effects on the natural beauty and special qualities of the National Landscape. These special qualities are set out in the <u>statutory management plan for the Lincolnshire Wolds National Landscape</u>

(Part I, Table 1) and identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status. Whilst it is noted that the management plan is dated 2018 - 2023, it has been adopted as saved policy until a new management plan is finalised.

- 2.4. The assessment concludes (paragraph 7.8.82) that "the special qualities of the AONB could be adversely impacted in the construction phase of the Proposed Development, in particular by construction of the pipeline both inside the Lincolnshire Wolds National Landscape and within its setting, and through the visibility of the Central Construction Compound during the construction period.". However, due to the scale, duration and reversibility, these impacts are considered insignificant. Natural England do not consider that a full assessment of the impacts on special qualities has been provided, and therefore cannot agree with the conclusions that potential landscape effects on the Lincolnshire Wolds National Landscape are not significant for the purposes of EIA (minor adverse effects during construction (Table 7-14) reducing to negligible adverse during operation (Table 7-16)).
- 2.5. The assessment does not assess impacts to all relevant special qualities; only provides judgments of effects on special qualities relating to the heading "landscape character" within the relevant landscape management plan. The assessment omits other relevant special qualities, including under the heading "biodiversity", for instance "ancient woodlands", "hedgerows", or "river, steams and ponds".
 - 2.5.1. Natural England advised the applicant within the PEIR response that particular sensitivities of the Lincolnshire Wolds National Landscape include the Lincolnshire Chalk Streams (such as Laceby Beck and the Waithe Beck), the various archaeological heritage features likely to be present (which is one of the primary reasons for the Lincolnshire Wolds National Landscape designation), the network of hedgerows and their accompanying wider field verges, and various landmark trees and copses. We note from the maps of key crossing locations in APP-045 that the Section 3 pipeline crosses Laceby Beck in one place, and Waithe Beck in two places, immediately outside of the Lincolnshire Wolds National Landscape boundary. Natural England advises that the assessment of special qualities should include these sensitivities.

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- 2.6. The assessment does not distinguish between effects on defined special qualities grouped under the heading "landscape character". These special qualities are scenic beauty and rural charm; expansive, sweeping views; peace and tranquillity; and farmed land (scenic quality, biodiversity, socio-economic). We recommend that the effects of the proposed scheme on the special qualities of the Lincolnshire Wolds National Landscape are provided in table format.
- 2.7. Natural England cannot agree with the conclusion to the assessment of impacts to special qualities provided, which is that "the affected section of the AONB would be small in extent and any impacts would be of short duration and reversible" (paragraph 7.8.82).
 - 2.7.1. Natural England disagrees that impacts to Lincolnshire Wolds National Landscape will be small in extent. There is an incorrect reliance on the mitigating effect of geographic extent on the assessed harm to the special

qualities. Any harm to the natural beauty harms the purpose of the designation, and this cannot be moderated by a quantitative judgement about the size or scale of the harm in relation to a particular part of the national landscape, or to any of its special qualities. Moreover, it is unclear which elements of the project have been assessed as being situated within the setting of the Lincolnshire Wolds National Landscape.

- 2.7.2. The ES does not provide evidence to suggest that impacts to the Lincs Wolds will be of short duration. The success of embedded mitigation such as hedgerow planting is unknown and is likely to be ineffective at year 1 (paragraph 7.8.149). The duration of the works affecting the Lincolnshire Wolds National Landscape is also unclear. A 1km stretch of open cut works is expected to take 7 months, with any specialist crossings extending this timescale (paragraph 7.8.3), however the indicative timeline for the entire project in Figure 3-29 does not reflect this information. Natural England advised at the PEIR stage that an important mitigation measure for the Lincolnshire Wolds National Landscape will be a short duration construction phase with reinstatement beginning as soon as possible. Natural England advise that clarity is sought on the timeframe for works in the Lincolnshire Wolds National Landscape.
- 2.7.3. The ES does not provide evidence to suggest that impacts to the Lincs Wolds NL are fully reversible. See our comments in section 2.9 below.
- 2.8. Section 7-10 of the assessment confirms that there will be non-mitigatable residual effects of construction activities on the visual amenity of the Lincolnshire Wolds, which will be "temporary to short term significant effects" (moderate adverse) reducing to "not significant during operation and decommissioning" (Paragraph 7.10.1). Visible surface infrastructure such as the central construction zone within the setting of the Lincolnshire Wolds National Landscape are likely to be visible from elevated areas within the protected landscape (paragraph 7.8.42). Natural England agrees with the assessment that these effects are likely to occur, and that the impacts on visual amenity—particularly within section 3—will be significant in EIA terms within the construction phase.
 - 2.8.1. Paragraph 7.8.42 goes on to state 'Effects on the special qualities of the Lincolnshire Wolds AONB from the compound would be reversible and short term.', however, it is unclear where the assessment of special qualities has taken place.
 - 2.8.2. Natural England advise that all visible surface infrastructure within the Lincolnshire Wolds National Landscape and its setting is considered within the landscape and visual assessment, inclusive of the temporary access and laydown areas, one of which includes HGV parking and hard infrastructure within the Lincolnshire Wolds National Landscape boundary near Irby upon Humber (Chapter 3, Figure 3-30 1 of 3).
- 2.9. Within the planning statement (APP-129, page 29), operational phase effects are incorrectly described as being "scoped out of the LVIA" because "the proposed pipeline would be buried and not affect landscape character". Natural England advises that the evidence presented does not rule out the persistence of significant residual effects on the statutory purposes of the Lincolnshire Wolds National

Landscape within the operational phase; the planning statement should be amended to reflect this.

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- 2.9.1. These effects include but are not limited to: "gaps in hedgerows and other boundary vegetation as a result of vegetation removal during the construction stage" (paragraph 7.8.5); trees which can't be replaced over the pipeline route; "landscape change through loss of hedgerows/ presence of Block Stations (external to the AONB) influencing perceived rural character" (Table 7-16); "localised change in views, and for some locations where the alignment does not deviate within the view, the line of the route would be perceptible due to breaks in the vegetation" (paragraph 7.8.148); and "localised fragmentation of the landscape pattern" (paragraph 7.8.89). Natural England advises that these effects on the Lincolnshire Wolds National Landscape may not be fully reversible, despite embedded mitigation such as B11, and there is a need for further clarity on whether the route can be successfully reinstated.
- 2.9.2. The assessment incorrectly moderates the effects of vegetation removal by stating that effects will be "limited as a result of the scale of the overall field boundaries that would reduce the perception of hedgerow loss along sections of the pipeline route" (paragraph 7.12.4). Natural England disagrees with this assessment and advises that any harm to the natural beauty harms the purpose of the designation.
- 2.9.3. Natural England advise that clarity is sought on the maximum hedgerow removal distance: Commitment B9 states that "where possible, hedgerow removal is to be kept to 15m to minimise habitat loss", however Chapter 3 of the ES suggests this distance is 20m (paragraph 2.12.213).
- 2.10. Natural England notes that the Lincolnshire Wolds National Landscape Partnership suggested the addition of a viewpoint within the LVIA: 'from the public bridleway adjacent to the south-east corner of Mount Gate Plantation at GR 244 998' (from email dated 15/09/2023). This viewpoint does not appear to have been included within the report. It is, however, noted that this advice was only provided shortly before the ES was submitted; this is assumed to be the reason for the omission of the viewpoint in the report. Alternate viewpoints nearby have been used within the assessment; thus, NE raise no major concern in this instance.
- 2.11. Natural England advise that the assessment of cumulative effects should include an assessment of the impacts of relevant proposals currently at scoping stage, such as the Grimsby to Walpole National Grid project.

3. Clarity is needed on whether the route can be successfully reinstated.

- 3.1. Natural England advised at PEIR stage that the ES should include a clear assessment, based on a full survey of the route, of the potential for and risks to full reinstatement of the route within the Lincolnshire Wolds National Landscape and its setting. Natural England acknowledge that while "the majority of the pipeline route passes through arable land" (paragraph 7.8.88), which is more straightforward to reinstate, our previous advice remains outstanding.
 - 3.1.1. The ES assumes that "all hedgerow and grassland will be reinstated to its original condition post construction and that mature trees within the AONB will

be avoided via trenchless construction" (page 7-19). We have the following comments on this assumption:

- 3.1.1.1. Natural England advise that information should be provided on the feasibility and risks of using trenchless methods for avoiding trees, including the suitability of a 2m minimum depth under trees (Commitment O6).
- 3.1.1.2. Successful reinstatement of the cable corridor relies heavily upon the proper treatment of soils during the construction process; improper management could lead to residual effects upon the landscape, e.g. where crop growth is limited along the cable route due to compaction of soils/improper soil restoration. Natural England recommend that reference is made within the LVIA to the soil management plan. NE's comments in relation to the content of the oSMP will be provided separately.
- 3.1.1.3. Natural England note that commitment B23 describes how watercourses will be crossed. We advise that information is supplied on whether the trenchless methods described risk disturbing sensitive chalk streams, and what residual impacts could occur.
- 3.1.2. Section 7.9 of the assessment confirms that "no additional enhancement measures have been identified to reduce the assessed impacts on landscape and visual amenity". Natural England have previously advised that mitigation measures should factor in the increasing impact of ash die-back as well as the vulnerability of hedgerow standards. A planting scheme well-planned and delivered in this context could deliver some positive net gains in terms of maintaining landscape character and improving habitat connectivity. It should also be noted that enhancement of the landscape need not be limited to the pipeline corridor; where the project can deliver enhancement across a wider area this would be welcomed.
- 3.2. Natural England seek clarity regarding the need for any signage required (i.e. to identify the location of the pipeline) along the route of the pipeline during the operational phase of the development. If required, consideration of the impact of new signage within the National Landscape should be included within the assessment.
- 3.3. Natural England advised at PEIR stage that the ES should consider what monitoring arrangements will be put in place and what remedial works might be undertaken if an adequate level of reinstatement is not being achieved. This previous advice remains outstanding.
 - 3.3.1. Natural England support in principle the Landscape Design Principle "Monitoring and maintenance of new planting and seeding to ensure successful establishment" (paragraph 7.7.5). However, the outline Landscape and Ecological Management Plan does not include this commitment, with paragraph 3.2.6 stating that "a detailed plan for the establishment and management of new hedgerows will be developed for the five-year establishment maintenance period". This Landscape Design Principle should be included within the outline Landscape and Ecological Management Plan. Natural England also advise that the detailed plan for newly planted hedgerows includes monitoring at the start and end of each growing season.

4. DRAFT Lincolnshire Heritage Coast Comments

- 4.1. The proposed NSIP is located partly within/within an area which Natural England has assessed as meeting the criterion for designation as a Heritage Coast. Whilst this assessment process does not confer any additional planning protection, the impact of the proposal on the natural beauty of this area may be a relevant matter in the determination of the proposal. At present, Natural England considers the Lincolnshire heritage Coast to be a valued landscape in line with paragraph 180 of the National Planning Policy Framework (NPPF). Without formal definition of the landscape and it's special character, specific assessment of the impact on the landscape is not possible. Nonetheless, NE consider that any infrastructure development should consider its impact on the area, reflect or enhance its intrinsic character and natural beauty and be in line with relevant National Policy Statements and development plan policies.
- 4.2. A new Heritage Coast is formally defined once a Memorandum of Agreement is signed by Natural England and the local authorities which cover the area. Following signing of the agreement planning policies and decisions should be consistent with the special character of the area and the importance of its conservation, in line with NPPF Paragraph 184 and NPS EN-1 sections 5.6.13, 5.10.10 and 5.10.11.

END