

Date: 15 January 2024
Our ref: 24768
Your ref: EN07 0008



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Dear Inspector

NSIP Reference Name / Code: EN07 0008

Title: Natural England's comments in respect of Viking CCS Pipeline

Examining authority's submission deadline 15 January 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.

Noting that this application is linked to a marine proposal to support the project Natural England recommends the terrestrial and marine aspects are considered at a holistic level and has provided detailed advice on this at Annex B. Natural England recommends that the Planning Inspectorat provide guidelines on how the interested parties can put arrangements for this into place.

For any further advice on this consultation please contact the case officer at [REDACTED] and copy to consultations@naturalengland.org.uk.

Yours faithfully,

SANDRA CLOSE

East Midlands Area Team

Natural England's Relevant Representations

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

PART II: Natural England's detailed advice (page 9).

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

Summary of Natural England's advice

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

Internationally designated sites

Humber Estuary Special Protection Area (SPA) and Ramsar

- Temporary loss of functionally linked land for non-breeding birds during construction.
- Noise and visual disturbance to breeding and non-breeding birds within functionally linked land (all phases).
- Lighting disturbance to breeding and non-breeding birds within functionally linked land (all phases).

Nationally designated sites

Humber Estuary Site of Special Scientific Interest (SSSI)

- As above.

Nationally Designated Landscape

Lincolnshire Wolds National Landscape

- Effective mitigation for negative impact on reasons for designation

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

- Internationally designated sites
- Nationally designated sites
- Biodiversity net gain
- Protected species
- Protected landscapes

Throughout our advice we will be using colour coding to denote the level of potential risk or significance of impact associated with our comments. They are as follows:

- **Red** are those where there are fundamental concerns which it may not be possible to overcome in their current form.
- **Amber** are those where further information is required to determine the impacts of the project and allow the Examining Authority to properly undertake its task and/or where further information is required on mitigation/compensation proposals in order to provide a sufficient degree of confidence as to their efficacy.
- **Yellow** are those where Natural England does not agree with the Applicant's position or approach. We would ideally like this to be addressed but are satisfied that for this particular project it is unlikely to make a material difference to our advice or the outcome of the decision-making process. However, we reserve the right to revise our opinion should further evidence be presented. It should be noted by interested parties that whilst these issues/comments are not raised as significant concerns in this instance, it should not be understood or inferred that Natural England would be of the same view in other cases or circumstances.

- **Green** are those which have been successfully resolved (subject always to the appropriate requirements being adequately secured).
- **Grey** are notes for Examiners and/or competent authority.

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.

Part I of these representations provides an overview of the issues and a summary of Natural England's advice. The designated sites and natural features for which there may be impact pathways for this application are identified.

Part II of these representations sets out all the significant issues which remain outstanding, and which Natural England advises should be addressed by Chrysaor Production (UK) Limited and the Examining Authority as part of the Examination process. These are primarily issues on which further information would be required in order to allow the Examining Authority to properly undertake its task or where further work is required to determine the effects of the project and to develop mitigation proposals and to potentially consider compensation proposals to provide a sufficient degree of confidence as to their efficacy.

Natural England will continue discussions with AECOM, on behalf of Chrysaor Production (UK) Limited, to seek to resolve these concerns and agree outstanding matters in a Statement of Common Ground. Failing satisfactory agreement, Natural England advises that these matters will require consideration by the Examining Authority as part of the Examination process.

The Examining Authority may wish to ensure that the matters set out in these relevant representations are addressed as part of the Examining Authority's first set of questions to ensure the provision of information early in the examination process.

Due to resource constraints within the team, Natural England has prioritised detailed review of key documents and associated figures, including 6.5 Report to Inform the Habitats Regulations Assessment (dated October 2023) (hereafter 'the shadow HRA'). Therefore, we may have additional comments to make in our Written Representations, for example if relevant information has not been included in the shadow HRA document.

Natural England will provide comments on the draft Development Consent Order (DCO) and associated documents in our Written Representations. At this stage, we advise that further information (outlined in Part II) is required to determine our comments on these documents.

The natural features potentially affected by this application

Internationally designated sites

In relation to Special Protection Areas (SPAs) and Special Areas of Conservation (SACs), the assessment provisions of the Conservation of Habitats and Species Regulations 2017 (and the Offshore Habitat Regulations) require that a competent authority may only agree to a plan or project of this nature after having ascertained, on the basis of an appropriate assessment, that it will not affect the integrity of the site(s). By this it is meant that such a plan or project may be granted authorisation only on the condition that the competent authority is certain, beyond reasonable scientific doubt, that it will not

adversely affect the integrity of the site(s) concerned¹. On the basis of the information submitted, 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 alone or in combination on the integrity of the following internationally designated sites:

- Humber Estuary SAC
- Humber Estuary SPA
- Humber Estuary Ramsar

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

- Temporary loss of functionally linked land for non-breeding birds during construction (NE6, NE12)
- Noise and visual disturbance to non-breeding birds within functionally linked land during construction and decommissioning (NE7, NE16, NE17, NE18)
- Noise and visual disturbance to breeding birds within functionally linked land during construction (NE14, NE15)
- Lighting disturbance to breeding and non-breeding birds within functionally linked land during all phases (NE8)
- Noise and visual disturbance to breeding birds within functionally linked land during operation (NE9)
- Noise and visual disturbance to non-breeding birds within functionally linked land during operation (NE10)
- In-combination assessment (NE24)
- Cumulative assessment (NE25)

Natural England has also noted '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)

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. Please find a summary of each 'green' issue below, and refer to Table 1 for further details:

- General HRA screening approach (NE1)
- Permanent loss of functionally linked land for breeding birds during construction (NE11)
- Noise and visual disturbance to breeding birds within functionally linked land during the construction of the Dune Isolation Valve connection (NE13)
- Atmospheric Pollution – dust and particulates during construction and decommissioning (NE19)
- Effects upon river lamprey and sea lamprey during construction (NE20)

¹ CJEU Case no. C-127/02. Landelijke Vereniging tot Behoud van de Waddenzee & Nederlandse Vereniging tot Bescherming van Vogels –v- Staatssecretaris van andbouw, Natuurbeheer en Visserij [2004].

Nationally designated sites

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

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

- Humber Estuary SSSI
- Lincolnshire Wolds National Landscape (formerly known as Lincolnshire Wolds Area of Outstanding Natural Beauty)

Humber Estuary SSSI

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.

Natural England has no current issues to raise regarding other designated sites considered at the PEIR and Environmental Assessment stages (namely Saltfleetby – Theddlethorpe Dunes SSSI and Saltfleetby – Theddlethorpe Dunes and Gibraltar Point SAC; Humber Estuary SSSI; Ramsar; and SAC and North Killingholme Haven Pits SSSI). This will be further clarified during the Statement of Common Ground process.

Lincolnshire Wolds National Landscape

The proposed development is partially within the Lincolnshire Wolds National Landscape. On 22 November 2023, all designated Areas of Outstanding Natural Beauty (AONBs) in England and Wales were renamed 'National Landscapes'. Whilst AONBs are still in designation under the 1949 Act, the new name reflects their national importance: the vital contribution they make to protect the nation from the threats of climate change, nature depletion and the wellbeing crisis, whilst also creating greater understanding and awareness for the work that they do. The statutory purpose of the National Landscape is to conserve and enhance the area's natural beauty. The application will need to be assessed as to whether the proposed development would have a significant impact on or harm that statutory purpose.

Natural England is a statutory consultee on planning proposals that could affect the reasons for its designation. Planning Practice Guidance states that this duty also applies to proposals outside the designated area but impacting on its natural beauty i.e its setting.

The Examining Authority will need to use national and local policies, together with local landscape expertise and information to determine such proposals.

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

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.

Protected species

Natural England is not providing bespoke advice on the protected species information provided in the Environmental Statement (ES) for this project. Please refer to Table 1 for a summary of our standing advice ('grey').

The Natural England Wildlife Licence Service (NEWLS) has been part of discussions with the applicant on great crested newt. At the early stages of discussions on the project proposal Natural England aimed to introduce District Level Licensing (DLL) for the whole of Lincolnshire (North Lincolnshire been already part of a scheme). The DLL Team advised in early 2022 that even if not, that NE can still service linear schemes such as pipelines that run through areas that are outside of our usual scheme areas. Plans have been put in place for dealing with this and other pipeline projects that will probably come through DLL in the future.

Natural England will continue to engage with the applicant regarding Natural England's the licensing need for great crested newts. The applicant has submitted a DLL Enquiry Form.

Biodiversity Net Gain

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

Natural England welcome the commitment to delivering BNG on this project. It is currently anticipated that the statutory requirement for Biodiversity Net Gain for NSIPs will be implemented from 2025. This will fall within the construction period. We will be recommending to the Examining Authority that a means of securing the target increase of 10% is put forward by the applicant. The draft BNG Strategy has been produced and we will be able to provide updated advice. We recommend that the target increase in BNG of 10% across all biodiversity unit types is secured by a suitably worded requirement in the DCO ('grey').

Soils and Agricultural Land

Natural England's position regarding soils and agricultural land is summarised below. Further detail on our reasoning for this is given in Part II.

Natural England is responsible for all consultations on applications involving the loss of more than 20 ha of Best and Most Versatile agricultural land (BMV) Natural England has previously noted that the proposal will not lead to the loss of 20 ha or more of BMV soil. However, we still be advising the applicant and Examining Authority on soil resource protection considerations that can be addressed by reference to good practice guidance. Permanent impact is limited and restricted (largely infrastructure development) to the construction stage. The operational stage has been phased out. We will be reviewing the draft Soil Management Plan which has taken on board recommended measures previously provided by Natural England and advising the applicant and Examining Authority.

3. Natural England's overall conclusions

Natural England's advice is that there are a number of matters which have not been resolved satisfactorily as part of the pre-application process that must be addressed by Chrysaor Production (UK) Limited and the Examining Authority as part of the Examination and consenting process before development consent can be granted, as summarised above and outlined in further detail in Part II below.

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

Natural England's Relevant Representations

Part II: Natural England's detailed advice

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

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

Natural England's (NE) Relevant Representations, Part II, Table 1

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
NE1	International designated sites <ul style="list-style-type: none"> • Humber Estuary SAC • Humber Estuary SPA • Humber Estuary Ramsar • Greater Wash SPA 		Natural England broadly agrees with the conclusions in Table 7-1 of the Report to Inform the Habitats Regulations Assessment ('HRA') regarding the potential for likely significant effects on the relevant designated sites, except where detailed comments are provided below (key issue ref NE6, NE7, NE8, NE9, NE10).	No further information required.	'Green'

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
	<ul style="list-style-type: none"> • Saltfleetby-Theddlethorpe Dunes and Gibraltar Point SAC 				
NE2	International designated sites <ul style="list-style-type: none"> • 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.	Further information required.	‘Amber’
NE3	International designated sites <ul style="list-style-type: none"> • 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).	Further information required.	‘Amber’

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
NE4	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar 	Non-breeding bird surveys (C) - Pipeline route	<p>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 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).</p> <p>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.</p>	No further surveys required. Further assessment required within HRA.	'Yellow'
NE5	International designated sites <ul style="list-style-type: none"> • 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. We advise further assessment is required to determine if this area is functionally linked to the Humber Estuary SPA.	Further information required.	'Amber'

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
NE6	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar 	HRA - Temporary loss of functionally linked land for non-breeding birds (C) LSE screening	Table 7-1 of the HRA identifies likely significant effects on golden plover and curlew. 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.	Further information required.	'Amber'
NE7	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA • Humber Estuary Ramsar 	HRA - Noise and visual disturbance to non-breeding birds within functionally linked land (C and D) LSE screening	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.	Further information required.	'Amber'
NE8	International designated sites <ul style="list-style-type: none"> • 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.	Further information required.	'Amber'

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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 <ul style="list-style-type: none"> • 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.	Further information required.	‘Amber’
NE10	International designated sites <ul style="list-style-type: none"> • 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	As above (NE9). We advise that further assessment is required to determine potential impacts to SPA non-breeding birds at ‘Viking Fields’ during maintenance visits.	Further information required.	‘Amber’
NE11	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA 	HRA - Permanent loss of functionally linked land for breeding birds (C)	Natural England agrees with the justification provided in section 7.3.4 of the HRA that there will be no permanent habitat loss for breeding avocet at the Theddlethorpe Facility.	No further information required.	‘Green’

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
	<ul style="list-style-type: none"> Humber Estuary Ramsar 	Appropriate Assessment			
NE12	International designated sites <ul style="list-style-type: none"> Humber Estuary SPA Humber Estuary Ramsar 	HRA - Temporary loss of functionally linked land for non-breeding birds (C) Appropriate Assessment	<p>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.</p> <p>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 difficult to find food (Mander et al., 2021²). Consequently, this may lead to effects on breeding productivity and ultimately population</p>	Further information required.	'Amber'

² 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) - decommissioning 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)
			<p>size (Baker et al., 2004³; Piersma et al., 2016⁴; Studds et al., 2017⁵).</p> <p>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., 2016⁶). 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.</p>		

³ 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.

⁴ 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.

⁵ 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

⁶ 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.

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
			<p>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.</p> <p>We advise further assessment of available alternative roosting/feeding sites in proximity to the works areas is required.</p> <p>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.</p>		
NE13	International designated sites <ul style="list-style-type: none"> • 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 7.3.13 of the HRA discusses the connection through 'Viking Fields' to the Dune Isolation Valve and concludes that mitigation is required to prevent disturbance to breeding avocet. Based on the information provided, Natural England agrees with the mitigation approach to restrict works to August/September.	No further information required.	'Green'
NE14	International designated sites <ul style="list-style-type: none"> • Humber Estuary SPA 	HRA – Noise and visual disturbance to breeding birds within functionally linked land (C)	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.	Further information required.	'Amber'

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
	<ul style="list-style-type: none"> Humber Estuary Ramsar 	<p>Appropriate Assessment</p> <p>- Dune Isolation Valve</p>			
NE15	<p>International designated sites</p> <ul style="list-style-type: none"> Humber Estuary SPA Humber Estuary Ramsar 	<p>HRA – Noise and visual disturbance to breeding birds within functionally linked land (C)</p> <p>Appropriate Assessment</p> <p>- Theddlethorpe Facility, Southern Compound</p>	<p>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.</p>	<p>Further information required.</p>	‘Amber’
NE16	<p>International designated sites</p> <ul style="list-style-type: none"> Humber Estuary SPA Humber Estuary Ramsar 	<p>HRA – Noise and visual disturbance to non-breeding birds within functionally linked land (C)</p> <p>Appropriate Assessment</p>	<p>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 <i>‘noise fencing will be included for works within 500m of the relevant survey fields’</i>. 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).</p>	<p>Further information required.</p>	‘Amber’

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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			
NE17	International designated sites <ul style="list-style-type: none"> • 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. Natural England notes there is no detailed in-combination assessment for noise and visual disturbance effecting Rosper Road Pools. See key point NE23 below.	Further information required.	'Amber'
NE18	International designated sites <ul style="list-style-type: none"> • 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.	Further information required.	'Amber'

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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			
NE19	International designated sites <ul style="list-style-type: none"> Humber Estuary SPA Humber Estuary Ramsar 	HRA – Atmospheric Pollution – Dust and Particulates (C and D) Appropriate Assessment	Natural England welcomes the mitigation measures set out in section 7.3.23 of the HRA for dust and particulates. We agree with the conclusion of no adverse effect on integrity of the Humber Estuary SPA and Ramsar from atmospheric pollution, subject to securing and adequate implementation of these mitigation measures.	No further information required.	‘Green’
NE20	International designated sites <ul style="list-style-type: none"> Humber Estuary SPA Humber Estuary SAC 	HRA – Effects upon River Lamprey and Sea Lamprey (C) Appropriate Assessment	<p>Natural England welcomes the commitments to use horizontal directional drilling (‘HDD’) to cross major watercourses, reinstate minor watercourses, and secure the construction mitigation measures outlined in 7.3.28 of the shadow HRA via the Construction Environmental Management Plan (CEMP).</p> <p>In this case, we highlight that the relevant watercourses appear to fall outside the Humber Estuary lamprey migration routes. Therefore, we advise that no further assessment is required to assess potential impacts to lamprey associated with the Humber Estuary SAC/Ramsar.</p>	No further information required.	‘Green’
NE21	International designated sites	HRA – Direct Habitat Loss or	Clarification needed that no works/fencing/vehicle access will take place within the SAC.		Amber

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
	<ul style="list-style-type: none"> Saltfleetby – Theddlethorpe Dunes and Gibraltar Point SAC 	Degradation (C and D)			
NE22	International designated sites <ul style="list-style-type: none"> Saltfleetby – Theddlethorpe Dunes and Gibraltar Point SAC 	HRA – Changes in Water Quality (C and D)	Natural England is content with the assessment provided and finds no water quality issues.		Green
NE23	International designated sites <ul style="list-style-type: none"> Saltfleetby-Theddlethorpe Dunes and Gibraltar Point SAC Humber Estuary Ramsar 	HRA – Harm to Natterjack Toad (C)	Natural England notes the identified the potential effect upon natterjack toad during the construction phase. Natterjack toad are qualifying species of the Humber Estuary SAC and Ramsar. Natural England is content that this species of designated sites of designated sites has been considered and appropriately followed correct guidelines and appropriate mitigation measures put forward.		Green
NE24	International designated sites	HRA – In-combination assessment at	Natural England notes that Table 7-2 of the HRA considers in-combination effects with other plans and projects. However, we	Further information required to	Amber

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
	<ul style="list-style-type: none"> Humber Estuary SPA Humber Estuary Ramsar 	appropriate assessment stage general comments (C and O)	<p>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 together. If mitigation or compensation has completely avoided or removed the effect, then this would not act in-combination with other projects.</p> <p>We note that section 7.4.4 of the HRA states <i>'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.'</i> However, this does not take into consideration residual effects. Therefore, we advise that the in-combination assessment should be revised.</p> <p>Natural England will review the assessment in more detail after further information is provided about impacts (and associated mitigation) as detailed above.</p>	determine requirement for further mitigation.	
NE25	International designated sites <ul style="list-style-type: none"> Humber Estuary SPA 	HRA – Cumulative assessment (C and O)	<p>Natural England advises that an assessment of cumulative effects should also be provided in the HRA.</p> <p>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</p>	Further information required.	'Amber'

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
	<ul style="list-style-type: none"> Humber Estuary Ramsar 		<p>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).</p> <p>The cumulative effects assessment should therefore consider the impact of the additional impacts of the project against the current environmental baseline of the Humber Estuary.</p> <p>The cumulative effects 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.</p>		
NE26	Soils and Best and Most Versatile Agricultural Land		<p>Natural England's position regarding soils and agricultural land is summarised below. Further detail on our reasoning for this is given in Part II.</p> <p>Natural England is responsible for all consultations on applications involving the loss of more than 20 ha of Best and Most Versatile agricultural land (BMV) Natural England has previously noted that the proposal will not lead to the loss of 20 ha or more of BMV soil. However, we still be advising the applicant and Examining Authority on soil resources. We note that predictions of expected loss could change owing to finalisation of the route. Mitigation and restoration considerations can be addressed by reference to good practice guidance. We will be reviewing the Soil Management Plan and advising the applicant and Examining Authority.</p>		Green

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
NE27	Protected Species	Protected species – General	<p>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.</p> <p>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.</p>	Requirement for mitigation not assessed by Natural England.	‘Grey’
NE28	Biodiversity Net Gain (BNG)	Biodiversity Net Gain (BNG)	<p>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 pre-development biodiversity value of the on-site habitat.</p> <p>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.</p>		‘Grey’

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
			<p>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 at this stage, but, depending on resources will aim to provide advice and /or comments. Biodiversity Net Gain Issue has been produced and a Biodiversity and Environmental Management Plan (BEMP), or similar will be forthcoming.</p> <p>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.</p> <p>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.</p> <p>We encourage developers to:</p> <ul style="list-style-type: none"> • develop BNG proposals in adherence with well-established BNG principles: <ul style="list-style-type: none"> ○ <u>BS 8683:2021 Process for designing and implementing Biodiversity Net Gain</u> 		

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
			<ul style="list-style-type: none"> ○ CIEEM/IEMA/CIRIA good practice principles (2016) and guidance (2019). • use the the Defra biodiversity metric to calculate BNG and adhere to the rules and principles set out within the metric guidance. <p>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.</p>		

NE key issue ref	Topic	Issue summary (C) – construction phase (O) – operational phase (D) - decommissioning 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)
NE29		Protected Landscapes	<p>The proposed scheme includes a small section of the preferred cable corridor that is within the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB). The applicant has advised that other routes were considered, these other route options were not discussed with stakeholders. However the applicant has advised that the preferred route was chosen on grounds of the alternatives proximity to proximity to community sites, and this option was less populated. . Given this, we have continued to seek advice from the Lincolnshire Wolds AONB Partnership who has provided valuable input into the assessment of , and recommendations for mitigation within, the AONB and its setting. Natural England is of the opinion that further discussion is needed between the three parties to ensure that once construction is complete that mitigation is of sufficient quality to ensure that all of the AONB’s special qualities, for which it is designated, are returned.</p> <p>NE needs to finalise opinion on the proposed Lincolnshire Heritage Coast and that any identified impacts has provided with satisfactory mitigation. Detailed comments will be provided at the Written Representation Stage.</p>		‘Amber’

Appendix A: Humber Estuary Special Protection Area: non-breeding waterbird assemblage (Version 1.2, June 2023)

The Humber Estuary Special Protection Area (SPA) qualifies under article 4.2 of the European Commission Bird Directive (79/409/EEC) in that it supports an internationally important assemblage of waterbirds. Confusion can arise concerning which species to consider when assessing the Humber Estuary SPA non-breeding, waterbird assemblage feature.

Natural England recommends focusing on what are referred to as the 'main component species' of the assemblage. Main component species are defined as:

- a) All species listed individually under the assemblage feature on the SPA citation (i.e. the species that qualified in 2007 when the site was designated).
- b) Species which might not be listed on the SPA citation but occur at site levels of more than 1% of the national population according to the most recent Humber Estuary Wetland Bird Survey (WeBS) 5-year average count (currently 2017/18 - 2021/22).
- c) Species where more than 2000 individuals are present according to the most recent Humber Estuary WeBS count.

The assemblage qualification is therefore subject to change as species' populations change. It should be noted that species listed on the citation under the assemblage features, whose populations have fallen to less than 1% of the national population, retain their status as a main component species and should be considered when assessing the impacts of a project or plan on the Humber Estuary SPA.

Natural England advises that the main component species of the Humber Estuary SPA non-breeding waterbird assemblage include (June 2023):

a) *Species listed individually under the assemblage feature on the SPA citation:*

- Avocet, *Recurvirostra avosetta* (non-breeding)
- Bar-tailed godwit, *Limosa lapponica* (non-breeding)
- Bittern, *Botaurus stellaris* (non-breeding)
- **Black-tailed godwit, *Limosa limosa islandica* (non-breeding)¹**
- **Brent goose, *Branta bernicla* (non-breeding)¹**
- **Curlew, *N. arquata* (non-breeding)¹**
- **Dunlin, *Calidris alpina alpina* (non-breeding)¹**
- **Golden plover, *Pluvialis apricaria* (non-breeding)¹**
- Goldeneye, *Bucephala clangula* (non-breeding)
- Greenshank, *T. nebularia* (non-breeding)
- Grey plover, *P. squatarola* (non-breeding)
- Knot, *Calidris canutus* (non-breeding)
- **Lapwing, *Vanellus vanellus* (non-breeding)¹**
- **Mallard, *Anas platyrhynchos* (non-breeding)¹**
- Oystercatcher, *Haematopus ostralegus* (non-breeding)
- Pochard, *Aythya farina* (non-breeding)
- **Redshank, *Tringa totanus* (non-breeding)¹**
- Ringed plover, *Charadrius hiaticula* (non-breeding)
- **Ruff, *Philomachus pugnax* (non-breeding)¹**
- Sanderling, *Calidris alba* (non-breeding)

- Scaup, *Aythya marila* (non-breeding)
- **Shelduck, *Tadorna tadorna* (non-breeding)¹**
- **Teal, *Anas crecca* (non-breeding)¹**
- Turnstone, *Arenaria interpres* (non-breeding)
- **Whimbrel, *Numenius phaeopus* (non-breeding)¹**
- **Wigeon, *Anas Penelope* (non-breeding)¹**

And

b) Species which are not listed on the SPA citation but occur at site levels of more than 1% of the national population according to the most recent Humber Estuary Wetland Bird Survey (WeBS) 5-year average count:

- Green sandpiper, *Tringa ochropus* (non-breeding)
- **Greylag goose, *Anser anser* (non-breeding)¹**
- **Little egret, *Egretta garzetta* (non-breeding)¹**
- **Pink-footed goose, *Anser brachyrhynchus* (non-breeding)¹**
- Shoveler, *Anas clypeata* (non-breeding)
- **Crane, *Grus grus* (non-breeding)¹**

As stated above, the assemblage qualification is subject to change as species' populations change; therefore, the appropriate WeBS data should be considered in any assessment and the above list should be used as a guide only.

Please note, the advice set out above should be considered when assessing potential impacts on the waterbird assemblage feature. You will also need to consider potential impacts on species which are not considered to be non-breeding waterbirds but are listed on the citation qualifying under article 4.1 and 4.2 of the Directive. These include:

- **Hen harrier, *Circus cyaneus* (non-breeding)¹**
- **Marsh Harrier, *Circus aeruginosus* (breeding)¹**
- Little tern, *Sterna albifrons* (breeding)
- Avocet, *Recurvirostra avosetta* (breeding)
- Bittern, *Botaurus stellaris* (breeding)

The species marked ¹ **in bold text** are known to use off-site supporting habitat / functionally linked land (FLL) (e.g. arable farmland, grassland/pasture, and/or non-estuarine waterbodies) in the non-breeding season and may therefore be the most relevant for assessing potential impacts of a proposed plan/project on birds using FLL associated with the Humber Estuary SPA. However, please note that this list should be used as a guide only; usage may depend on factors such as the habitats available on the site and distance to the Humber Estuary etc. Therefore, assessments of potential impacts on birds using functionally linked land should consider all relevant species and clear justification should be provided if any species are excluded from the assessment.

Appendix B: Recommended coordinated approach to terrestrial and marine elements of the proposal

Natural England text in relation to taking into account all aspects of the of an offshore windfarm project which may be subject to determination across multiple separate NSIPs/Consents with different owners for the terrestrial, coastal ports and marine with joint/shared infrastructure which may have cumulative impacts to nature conservation features.

Natural England notes that where there is likely to be separate NSIP/consents for assets relating to the same project which adds additional complexity, and observe such a scenario could potentially result in up to three Development Consent Orders (DCOs) and/or marine licence with overlapping requirements

Therefore, we advise that prompt consideration is required by the relevant parties to consider how conditions including mitigation measures (and potential compensation measures) can be implemented and consented to ensure that Carbon Capture Utilisation and Storage (CCUS) projects impacts can be considered holistically, the risk of stranded assets can be avoided, and that CCUS can be delivered in a timely manner.

From our experiences of the consenting process for both the Triton Knoll offshore windfarm 'array' NSIP and the Triton Knoll Electrical System NSIP. We provide the following advice on a without prejudice basis to help address the challenges that may be faced by projects where multiple NSIPs/consents are required but timeframes are unlikely to align, the merits of the applications are unlikely to be considered by the same examining authority/competent authority and there are subsequent implications for DCO requirement and marine licence discharge.

Consideration of indirect, secondary and cumulative impacts

We advise that in order for any one of the examining/competent authorities to assess the direct, indirect, secondary and cumulative impacts from multiple NSIPs/consents there will need to be sufficient information submitted on the indirect, secondary and cumulative impacts of the grid connection works with each we draw your attention to national policy statements which require projects to ensure they provide sufficient information on the indirect, secondary and cumulative effects. The competent authorities must

be satisfied that there are no obvious reasons why the necessary approvals for the other element are likely to be refused.

Though, it remains unclear to Natural England how this would work in practice when the Applicants for the different elements and/or the applicant for any other associated project are different. There is a risk that due to timeframes the coordinated approach may well result in a detailed terrestrial/onshore scheme, but may not have detailed proposals relating to the marine elements which doesn't accord with national policies.

Natural England advises that it cannot be reasonably contended that a cumulative assessment does not need to be carried out of a project that is not only intrinsically linked to the proposed development, but is necessarily required to come forward for the proposed development to have any meaningful existence beyond, resulting in a stranded asset - be that the terrestrial or marine element.

Consenting of associated NSIPS

The competent authorities must be satisfied that there are no obvious reasons why the necessary approvals for the other elements are likely to be refused. For example Natural England struggled during the Triton Knoll generation array examination to advise the Examining whether there were, or were not, any obvious reasons why the necessary approvals would be likely to be refused.

For Triton Knoll Natural England also advised that a condition preventing the offshore works associated with the generation asset commencing until the necessary grid connection consents had been obtained. Such an approach would ensure that any secondary, indirect and cumulative impacts that were identified as arising during the course of any assessments into the grid connections works would prevent the authorised development coming forward, as they would result in the necessary grid connection consents being refused.

Natural England advises, that without such a condition being included in the DCO for Viking Loggs, there would be no option open to the competent authorities other than to refuse the marine applications. This is because the Examining Authority wouldn't have before it sufficient information on the indirect, secondary and cumulative effects of the proposed development with the marine works which the Examining Authority

is required to have by the EIA Regulations. In addition, without the suggested condition, we are concerned it would allow the terrestrial works to be built without any means of connecting them to the offshore storage area.

Natural England highlights the risk that such a situation may pose to the Examining Authority, as the rationality of the decision could be questioned were it to allow the Applicant to construct an onshore pipeline that had no meaningful existence because it could not be connected to the storage area.