



Triton Knoll Offshore Wind Farm Limited Triton Knoll Electrical System

**Appendix 23: Statement of
Common Ground between Triton
Knoll Offshore Wind Farm
Limited and Natural England**

Date: October 2015

**Appendix 23 of the Applicant's
response to Deadline 1**

Triton Knoll Offshore Wind Farm Limited

Triton Knoll Electrical System

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between Triton Knoll Offshore Wind Farm
Limited and Natural England

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Deadline 1

Date: October 2015

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Offshore Wind Farm Limited
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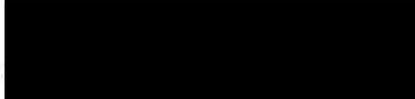
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1. CONFIRMATION OF AGREEMENT

Confirmation of Agreement with Natural England

Signed:



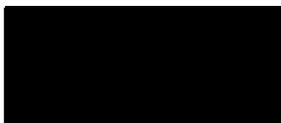
For: Triton Knoll Offshore Wind Farm Limited

Name: KIM GAULD CLARIC

Title: SENIOR CONSENTS MANAGER

Date: 5/10/15

Signed:



For: Natural England

Name: Dr Chris Gibson

Title: Principal Adviser

Date: 5th October 2015

2. INTRODUCTION

Reason for this Statement of Common Ground

- 2.1 This Statement of Common Ground (SoCG) has been prepared in respect of Triton Knoll Offshore Wind Farm Ltd.'s (TKOWFL or the Applicant) application for a development consent order (DCO) under the Planning Act 2008 (the Application).
- 2.2 This SoCG with Natural England (NE) is a means of clearly recording any areas of agreement and disagreement between the two parties in relation to the Application. The SoCG has been structured to reflect topics of relevance to the NE as a statutory nature conservation body in relation to the Application.
- 2.3 The structure of the SoCG is as follows:
- Section 1: Confirmation of agreement;
 - Section 2: Introduction;
 - Section 3: Consultation;
 - Section 4: Matters agreed;
 - Section 5: Matters under discussion; and
 - Section 6: Appendices
- 2.4 Throughout this SoCG the phrase “It is agreed...” is used as a precursor to any point that has been specifically agreed between the Applicant and NE. Points that are “still under discussion” will be the subject of ongoing discussion wherever possible to resolve, or refine, the extent of disagreement between the parties.
- 2.5 It is the intention that this document will facilitate further discussions between both parties and also give the Examining Authority (ExA) an understanding of the level of common ground between both parties from the outset of the examination process.

The proposed development

- 2.6 The Application is for development consent to construct and operate the Triton Knoll Electrical System (the proposed development) under the Planning Act 2008. The Triton Knoll Electrical System (TKES) would connect the consented Triton Knoll Offshore Wind Farm (TKOWF) offshore array to the existing National Grid substation at Bicker Fen, Boston.
- 2.7 The TKOWF is located approximately 33km (20.5 miles) east of the Lincolnshire coast. The Secretary of State granted a DCO for the TKOWF on 12 July 2013. The

Application was submitted to the Planning Inspectorate on the 24 April 2015 and accepted for examination on 21 May 2015.

2.8 The proposed development comprises the project elements as described in Volume 2, Chapter 1, *Offshore Project Description* (document reference 6.2.2.1) and Volume 3, Chapter 1, *Onshore Project Description* (document reference 6.2.3.1) of the Environmental Statement (ES), briefly comprising:

- Up to six offshore export cable circuits – to transmit the high voltage alternating current (HVAC) electricity from the offshore substations to the transition joint bays at the landfall;
- Landfall infrastructure just north of Anderby Creek, Lincolnshire – including transition joint bays which house the connection between the offshore cables and the onshore cables;
- Up to six onshore export cable circuits to transmit the HVAC electricity from the transition joint bays at the landfall to the Triton Knoll Offshore Wind Farm Ltd Triton Knoll Electrical System proposed Triton Knoll Substation via the Intermediate Electrical Compound;
- An Intermediate Electrical Compound near to Orby Marsh – to provide compensation for reactive power to allow more efficient transmission and minimise losses;
- A substation near the existing Bicker Fen National Grid Substation – to step-up to the electricity to the voltage used by the National Grid and provide additional compensation for reactive power;
- Up to four onshore export cable circuits (400 kV) – to transmit the electricity from the proposed Triton Knoll Substation to the existing National Grid substation at Bicker Fen, Boston; and
- Unlicensed Works within the existing National Grid Bicker Fen substation compound comprising up to two new ‘bays’ of electrical equipment required to connect the Electrical System to the National Grid.

Application elements under Natural England’s remit

2.9 Natural England (NE) is an executive non-departmental public body established under the Natural Environment and Rural Communities Act 2006 (‘NERC Act’), and is the statutory advisor to the Government on nature conservation in England and promotes the conservation of England’s wildlife and natural features. NE’s remit extends to the territorial sea adjacent to England, up to 12 nautical miles from the coastline.

2.10 NE is a statutory consultee for the proposed development under section 42 of the Planning Act 2008 and a prescribed consultee under Regulation 9 (1)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009. NE is a

statutory consultee in respect of all applications for consent for Nationally Significant Infrastructure Projects which are likely to affect land in England.

2.11 The Application elements under NE's remit and that have been agreed to include within this SoCG are:

- Site Selection and Alternatives;
- Landscape and Visual Impact;
- Terrestrial Ecology;
- Land Use, Agriculture and Soils;
- Physical Processes;
- Marine Ornithology;
- Subtidal and Intertidal Ecology;
- Fish and Shellfish Ecology;
- Marine Mammals;
- Offshore Nature Conservation; and
- Habitats Regulations Assessment.

2.12 For the purpose of the Application, it should be noted that pursuant to an authorisation made on the 9 December 2013 by the Joint Nature Conservation Committee (JNCC) under paragraph 17(c) of Schedule 4 to the Natural Environment and Rural Communities Act 2006, NE is authorised to exercise the JNCC's functions as a statutory consultee. NE will therefore be providing statutory advice in respect of that delegated authority, and therefore although agreements set out in this SoCG are with NE, they are also agreements made on behalf of JNCC.

3. CONSULTATION

Summary

- 3.1 The Applicant engaged with NE on the proposed development during the pre-application process, both in terms of informal non-statutory engagement, and statutory consultation carried out pursuant to section 42 of the Planning Act 2008 (the 2008 Act). A summary of consultation undertaken, specific to an environmental topic, is presented in each of the chapters of the ES, with detail on all the consultation undertaken by the Applicant during the pre-application process presented in the Consultation Report (document reference 5.1). The Consultation Report demonstrates how the Applicant has complied with its duties under the relevant sections of the 2008 Act. Sections 2 and 8 of the Consultation Report detail the formal non-statutory consultation that was carried out and sections 6 provides a summary of the formal statutory consultation under the 2008 Act.

EIA Evidence Plan

- 3.2 NE participated in the pre-application Triton Knoll EIA Evidence Plan process. The primary aim of the EIA Evidence Plan was to ensure that TKOWFL, by agreement with the key statutory and non-statutory bodies, provided sufficient and proportionate information and applied appropriate and proportionate methods in the assessment of the TKES works and application documentation. The EIA Evidence Plan (document reference 8.16) was submitted with the application for development consent, and provides detail of the discussions and agreements undertaken and made as part of that process.
- 3.3 As part of the process, NE was represented in topic specific Review Panels, and was a member of the Evidence Plan Steering Group. NE was involved in the Review Panels for issues relating to the following topics:
- Onshore Ecology;
 - Human Environment Issues (Landscape) representing Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) only; and
 - Offshore Ecology.
- 3.4 Agreements reached during the EIA Evidence Plan process are set out within this SoCG in order to provide the ExA with a clear understanding of the status of these matters.

Pre-application Consultation

- 3.5 In its response to the statutory consultation in November 2014 NE provided comments on the preliminary environmental information (PEI), NE provided comments on the areas of the draft Environmental Statement (ES) relevant to their remit.
- 3.6 It is agreed that Table 1 presents an accurate chronological overview of the key meetings in relation to the onshore aspects of the Application which were undertaken with NE prior to the submission of the Application.
- 3.7 It is agreed that Table 2 presents an accurate chronological overview of the key meetings in relation to the offshore aspects of the Application which were undertaken with NE prior to the submission of the Application.
- 3.8 It is agreed that the Consultation Report (document reference 5.1) submitted with the application provides accurate record of the statutory consultation which NE was involved in.
- 3.9 It is agreed that topic specific consultation with NE, outside of the EIA Evidence Plan process, is captured within the consultation sections of each of the relevant ES chapters, listed in paragraph 2.13.

Table 1: Consultation meetings undertaken with Natural England pre-application in relation to onshore matters

Date	Form of consultation	Activity/Summary
15/07/2013	Meeting	Scoping Report and project update meeting
09/04/2014	Meeting	Terrestrial Ecology Meeting
15/05/2014	Meeting	EIA Evidence Plan Steering Group Kick Off meeting
15/05/2014	Meeting	EIA Evidence Plan Onshore Ecology Review Panel Kick Off meetings

03/07/2014	Teleconference	EIA Evidence Plan Onshore Ecology Review Panel meeting
29/07/2014	Meeting	EIA Evidence Plan Onshore Ecology Review Panel meeting
10/09/2014	Meeting	EIA Evidence Plan Steering Group meeting
28/01/2015	Meeting	Lincolnshire Coastal Grazing Marsh meeting to discuss cable route construction methodologies
25/02/2015	Meeting	EIA Evidence Plan Steering Group final meeting

Table 2: Consultation meetings undertaken with Natural England pre-application in relation to offshore matters

Date	Form of consultation	Activity/Summary
13/08/2013	Meeting	HRA
09/04/2014	Meeting	Offshore Ecology Meeting
15/05/2014	Meeting	EIA Evidence Plan kick off meeting and with Offshore Ecology Review Panel break out
22/05/2015	Teleconference	EIA Evidence Plan Offshore Ecology Review Panel
20/06/2014	Teleconference	EIA Evidence Plan Offshore Ecology

		Review Panel
18/07/2014	Teleconference	EIA Evidence Plan Offshore Ecology Review Panel
18/08/2014	Meeting	EIA Evidence Plan Offshore Ecology Review Panel
15/01/2015	Meeting	EIA Evidence Plan Offshore Ecology Review Panel
11/02/2015	Teleconference	Review of No Likely Significant Effect Report

Post-application Consultation

3.10 The Applicant made initial contact with NE in relation to the preparation of a SoCG in late May 2015, following the Secretary of State's acceptance of the application, and it was agreed that drafting a SoCG would be appropriate as a means of making a clear statement to the ExA appointed on the key issues during the early stages of the examination.

3.11 Table 3 sets out the meetings and discussions that have taken place between the Applicant and NE since the application was accepted for examination by the Planning Inspectorate.

Date	Form of consultation	Activity/Summary
03/08/2015	Meeting	Meeting to discuss NE's Relevant Representation submitted in response to the notification carried out under Section 56 of the 2008 Act; a draft SoCG and process for working jointly on this statement; and matters which require further discussion leading up to the

		Examination
24/08/2015	Teleconference	Teleconference to further discuss offshore matters raised in NE's Relevant Representation
01/09/2015	Teleconference	Teleconference to discuss progress on outstanding matters and the SoCG
23/09/2015	Teleconference	Teleconference to discuss progress on outstanding matters and the SoCG

4. MATTERS AGREED

The Application

- 4.1 The following sections of this SoCG set out the areas of agreement by the parties in respect of the Application.
- 4.2 Where the agreements set out in the following sections refer to sections of the ES, it is agreed that those statements apply equally to the equivalent data, descriptions or analyses set out in any relevant technical reports, survey reports or any other application documents, unless otherwise stated.

Policy Context

- 4.3 It is agreed that the National Policy Statements (NPS) for Overarching Energy (EN-1), Renewable Energy (EN-3) and Electricity Networks Infrastructure (EN-5), are the overriding policy documents in relation to the Project.
- 4.4 It is agreed that NPS EN-1, EN-3 and EN-5 provide for flexibility in the project design at the point of consent.
- 4.5 It is agreed that NPS EN-1 and EN-3 advocate the use of the 'Rochdale Envelope' approach to allow the assessment of effects in relation to the scope of the project design by reference to the maximum extents or dimensions, subject to the imposition of relevant controls in the draft DCO and DML (paragraphs 4.2.7 to 4.2.8 of EN-1 and paragraphs 2.6.42 to 2.6.43 of EN-3).
- 4.6 It is agreed that Policy Context sections of each of the relevant ES chapters listed in paragraph 2.9, have considered and referred to all relevant specific policy and guidance documents and all relevant national and international legislation in relation to the potential impacts identified.
- 4.7 It is agreed that each of the relevant ES chapters listed in paragraph 2.12 of this statement, contains a complete assessment of all the potential direct and indirect impacts that ought to be included for this type of development within the project area, and as defined by the relevant NPS(s) and other relevant policy and guidance.
- 4.8 It is agreed that any works, not assessed in the ES, such as offshore site investigation works will be subject to a separate licence or notification.

Project Description

- 4.9 It is agreed that the proposed development details are appropriately reflected in the parameters as set out in the draft DCO (document reference 3.1).
-

- 4.10 It is agreed that the project details described in Volume 2, Chapter 1 *Offshore Project Description*, of the ES (document reference 6.2.2.1) provide a clear and thorough description of the proposed development and are suitable as a basis for the detailed assessment of environmental topics relevant to the offshore area, and intertidal area of the works.
- 4.11 It is agreed that the project details described in Volume 3, Chapter 1 *Onshore Project Description* of the ES (document reference 6.2.3.1) provide a clear and thorough description of the proposed development and are suitable as a basis for the detailed assessment of environmental topics relevant to the onshore area of the works.

Key Parameters for the Assessment

- 4.12 It is agreed that a realistic maximum adverse scenario has been established according to the 'Rochdale Envelope', using project specification details given in Volume 3, Chapter 1 of the ES.
- 4.13 It is agreed that the limits of deviation correspond to the order limits and as such are assessed according to the 'Rochdale Envelope'.

Approach to EIA

- 4.14 It is agreed that the EIA process, as set out in Volume 1, Chapter 3 *Approach to EIA* of the ES (document reference 6.2.1.3), is an appropriate approach for the identification and assessment of the potential impacts and effects of the proposed development.
- 4.15 It is agreed that the consideration given to Hornsea Project 1 and Hornsea Project 2 in the cumulative impact assessment, as set out in Table 3 of Appendix 2 to Volume 1, Annex 3.1 *Approach to Cumulative and Inter-relationships Impact Assessment* for the Triton Knoll Electrical System, remains appropriate and does not require updating.
- 4.16 It is agreed that the Tetney Sealine project has completed and therefore does not need to be taken into consideration.

Site Selection and Alternatives

- 4.17 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Site Selection and Alternatives.
- 4.18 It is agreed that paragraphs 4.25 – 4.79, Volume 1, Chapter 4 *Site Selection and Alternatives* (document reference 6.2.1.4) of the ES provide an accurate summary of the Interface Selection Assessment, including the changes to the Interface Selection Assessment assumptions set out in paragraphs 4.65 – 4.79..
- 4.19 It is agreed that the process described in paragraphs 4.25 – 4.79, Volume 1, Chapter 4 of the ES is appropriate for the selection of the onshore interface point at Bicker Fen and took due consideration of the siting requirement of the substation, Intermediate Electrical Compound (IEC), Landfall and cable route.
- 4.20 It is agreed that the paragraphs 4.80 – 4.248, Volume 1, Chapter 4 of the ES provide an accurate summary of the Site Selection Assessment and that the process undertaken was appropriate for the selection of the substation, IEC, Landfall and cable route.
- 4.21 It is agreed that the site selection and alternatives process has resulted in an appropriate location for the interface point at Bicker Fen.
- 4.22 It is agreed that the site selection and alternatives process has resulted in an appropriate location for the substation.
- 4.23 It is agreed that the site selection and alternatives process has resulted in an appropriate location for the IEC.
- 4.24 It is agreed that the site selection and alternatives process has resulted in an appropriate location for the landfall.
- 4.25 It is agreed that the site selection and alternatives process has resulted in an appropriate location for the offshore cable route.
- 4.26 It is agreed that the site selection and alternatives process has resulted in an appropriate location for the onshore cable route.

Landscape and Visual

- 4.27 In accordance with NE's remit, set out in paragraphs 2.9 to 2.14 above, this section of the SoCG sets out those aspects of the Application that are agreed in relation to the potential Landscape and Visual impacts on the Lincolnshire Wolds AONB only,
- 4.28 It is agreed that NE has not assessed and therefore have no comments in relation to potential landscape and visual impacts within any other part of the study area.

Scope and Methodology

- 4.29 It is agreed that the impact assessment approach presented in paragraphs 2.36 – 2.67 of Volume 3, Chapter 2 *Landscape and Visual* of the ES (document reference 6.2.3.2), is based on appropriate methodologies, including the 3rd edition of the Guidance for Landscape and Visual Impact Assessment, for the assessment of landscape and visual impacts and that it is fit for purpose for use in the assessment process.
- 4.30 It is agreed that the approach to assessment of effects on the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB) is robust and that the methodology used for assessing impacts on the AONB, as set out in Volume 3 Chapter 2 of the ES, is appropriate
- 4.31 It is agreed that the information provided for viewpoint 10, with regards to views from the AONB, is appropriate.
- 4.32 It is agreed that the Photographic Surveys and Visualisations, described in paragraphs 2.68 – 2.86 of Volume 3, Chapter 2 of the ES and located in Volume 5, Chapter 2, Annex 2.2, are an accurate and appropriate aid to the consideration of potential landscape and visual impacts.

Existing Environment

- 4.33 It is agreed that the Landscape and Visual study area defined in paragraphs 2.27 – 2.30, Volume 3, Chapter 2 of the ES is acceptable for the purposes of describing the baseline environment and understanding the potential Landscape and Visual impacts in relation to the Lincolnshire Wolds AONB, as a result of the proposed development.
- 4.34 It is agreed that the methodology used to characterise the existing environment with respect to the landscape and visual context of the project area, including desktop and field assessments, as set out in Section 1.2 of Volume 5 Annex 2.1 *LVIA Technical Baseline Report* (application reference 6.2.5.2.1) of the ES, provides an appropriate approach to describe the baseline environment in relation to the Lincolnshire Wolds AONB.

- 4.35 It is agreed that the number and location of the representative viewpoints, presented in Volume 5, Annex 2.1 of the ES, from which photomontage visualisations were generated, are appropriate for the assessment of landscape and visual impacts in relation to the Lincolnshire Wolds AONB arising from the onshore works.
- 4.36 It is agreed that the descriptions given in paragraphs 2.87 – 2.127 of Volume 3, Chapter 2 Landscape and Visual Impact Assessment (application reference 6.2.3.2) of the ES provide an accurate and appropriate summary of the characterisation of the existing landscape in relation to the Lincolnshire Wolds AONB, based on the existing data available and the field assessments undertaken.

Key Parameters for Assessment and Embedded Mitigation

- 4.37 It is agreed that the realistic maximum adverse scenarios as defined in Tables 2-10 – 2-13, Volume 3, Chapter 2 of the ES, are clearly described, sufficiently justified and appropriate for assessing the potential Landscape and Visual impacts in relation to the Lincolnshire Wolds AONB during all phases of development.
- 4.38 It is agreed that there are no other scheme permutations, when considering the project details, which could lead to any greater landscape and visual effects in relation to the Lincolnshire Wolds AONB than the realistic maximum adverse scenarios set out in Tables 2-10 – 2-13.
- 4.39 It is agreed that the substation design envelope includes either an Air Insulated Switchgear (AIS) or Gas Insulated Switchgear (GIS) layout and that the worst case considered in the assessment and shown in the photomontages is the AIS option.
- 4.40 It is agreed that the potential effects of any final layouts of the substation, IEC or unlicensed works at the existing Bicker Fen substation will be of no greater significance in relation to the Lincolnshire Wolds AONB than that those assessed in the ES.
- 4.41 It is agreed that the photomontages are an accurate representation of the proposed development and are appropriate for the purposes of aiding the landscape and visual impact assessment.
- 4.42 It is agreed that, given the limited duration that lighting will be required both during the construction and operational phases, the proposed development will not give rise to significant night-time visual effects in relation to the Lincolnshire Wolds AONB at the IEC, Substation or existing Bicker Fen substation sites.
- 4.43 It is agreed that Table 2-14 of Volume 3, Chapter 2 of the ES describes the mitigation measures that have been embedded into the project design and demonstrates how the design has minimised harm to the environment.

- 4.44 It is agreed that the planting proposals set out in paragraphs 2.141 – 2.150, Volume 3, Chapter 2 of the ES and detailed in Section 7 of the *Outline Landscape Strategy and Ecological Management Plan* (LSEMP) (document reference 8.8) are appropriate for the purposes of mitigating potential significant adverse landscape and visual effects in relation to the Lincolnshire Wolds AONB.
- 4.45 It is agreed that the cable route mitigation strategy detailed in paragraphs 7.14 of the *Outline LSEMP* (document reference 8.8) is appropriate for the purposes of mitigating potential significant adverse landscape and visual effects.
- 4.46 It is agreed that the assessment of predicted residual landscape and visual impacts in relation to the Lincolnshire Wolds AONB is appropriate in considering the embedded mitigation measures from the point that the proposed planting has reached maturity.
- 4.47 It is agreed that, as set out in paragraphs 7.6 and 7.11 of the Outline LSEMP, limited planting may be undertaken around the perimeter of the IEC site once the enabling works are complete to allow for some landscaping to become established whilst the construction work on the above ground infrastructure is underway within the compound.
- 4.48 It is agreed that the planting proposals set out in section 7 of the Outline LSEMP are appropriate mitigation in the landscape as there are local examples of similar planting schemes.
- 4.49 It is agreed that the Outline LSEMP provides suitable indicative content for the written landscaping scheme required under requirements 6 and 7 of the draft DCO (document reference 3.1).

Assessment of Impacts

- 4.50 It is agreed that paragraphs 2.151 – 2.745 of Volume 3 Chapter 2 of the ES present a robust and appropriate assessment of the potential impacts on the landscape and visual context in relation to the Lincolnshire Wolds AONB arising from all stages of development, as per the requirements detailed in the relevant policy and legislation.

IEC

- 4.51 It is agreed that the predicted residual **landscape** and **visual** effects at the IEC, as set out Table 2-32 in Volume 3, Chapter 2, of the ES are **neutral** during the construction and decommissioning phase, which is **not significant**.
- 4.52 It is agreed that the predicted residual **landscape** effects at the IEC as set out in Table 2-32 in Volume 3, Chapter 2, of the ES are **not significant** during the operation phase.

4.53 It is agreed that the predicted residual **visual** effects at the IEC upon the Lincolnshire Wolds AONB are **neutral** during the operation phase as defined in Table 2-23 in Volume 3, Chapter 2 are **neutral** from Viewpoint 10, which is **not significant**.

Cable route

4.54 It is agreed that the predicted residual **landscape** and **visual** effects of the cable route upon the Lincolnshire Wolds AONB are **neutral**, as set out Table 2-15 and 2-16 in Volume 3, Chapter 2, during the construction phase, which is **not significant**.

4.55 It is agreed that landscape and visual effects of the cable route upon the Lincolnshire Wolds AONB during operation have been appropriately scoped out of the assessment as the cables will be below ground.

4.56 It is agreed that no significant effects have been accurately identified on landscape and visual receptors within the Lincolnshire Wolds AONB, from the cable route during decommissioning, as set out in Table 2-35 of Volume 3, Chapter 2 of the ES.

Mitigation

4.57 It is agreed that, given the generally low level of effect likely to be experienced by landscape and visual receptors in relation to the Lincolnshire Wolds AONB during the construction, operation and decommissioning of the project, no specific applied mitigation or monitoring is required.

Cumulative Impacts

4.58 It is agreed that the projects scoped into the cumulative impact assessment, as detailed in Table 2-28 of Volume 3, Chapter 2 of the ES are appropriate and reasonable in order to undertake the cumulative assessment for landscape and visual in relation to the Lincolnshire Wolds AONB.

4.59 It is agreed that the design impact scenario considered within the assessment of potential cumulative landscape and visual impacts, as presented in Tables 2-29 to 2-31 of Volume 3, Chapter 2, of the ES is appropriate for assessing the maximum likely cumulative effects on landscape and visual receptors in relation to the Lincolnshire Wolds AONB.

4.60 It is agreed that the project has sufficiently considered all of the potential cumulative impacts and the outcome of the cumulative assessment presented in paragraph 2.763 to 2.778 of Volume 3, Chapter 2 of the ES which concludes that there are unlikely to be any significant impacts in relation to the Lincolnshire Wolds AONB, is accurate.

Inter-related Effects

4.61 It is agreed that the assessment undertaken and detailed in Table 12-6 of Volume 3, Chapter 12 *Inter-related Effects* of the ES (document reference 6.2.3.12) is appropriate, accurate, and no significant impacts on the landscape and visual context in relation to the Lincolnshire Wolds AONB are predicted from the project with respect to inter-related impacts.

Terrestrial Ecology

4.62 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Terrestrial Ecology.

Scope and Methodology

4.63 It is agreed that the study area defined in paragraphs 4.24 – 4.26 and Table 4-3 of Volume 3, Chapter 4, *Terrestrial Ecology* of the ES (document reference 6.2.3.4) is acceptable for the purposes of describing the baseline environment and understanding the potential impacts on terrestrial ecology from the proposed development.

4.64 It is agreed that the impact assessment methodology presented in paragraphs 4.27 – 4.47 of Volume 3, Chapter 4 of the ES is based on appropriate methodologies for the assessment of impacts on terrestrial ecology, and that it is fit for purpose for use in the assessment process.

4.65 It is agreed that the use of aerial Phase 1 surveys for areas where survey access was not provided by landowners, as set out in paragraphs 4.46 – 4.48 of Volume 3, Chapter 4 of the ES, is an appropriate technique to identify the existing environment.

4.66 It is agreed that the project specific data sources and field surveys for all habitats and species within the study area presented in Tables 4-7 – 4-8 and paragraphs 4.48 – 4.50 of Volume 3, Chapter 4 of the ES are appropriate for the purposes of establishing the existing terrestrial ecology environment.

4.67 It is agreed that the approach to assessing potential impacts on designated sites as set out in paragraphs 4.51 – 4.54 of Volume 3, Chapter 4 of the ES, is appropriate.

4.68 It is agreed that the approach to assessing potential ecological impacts on the Lincolnshire Coastal Country Park (LCCP) as set out in Table 4-2 of Volume 3, Chapter 4 of the ES, that the habitats are included in the existing environment but that they are not specifically assessed as the LCCP is not designated specifically for reasons of nature conservation importance, is appropriate.

4.69 It is agreed that the approach to assessing the Lincolnshire Coastal Grazing Marsh (LCGM) as county level importance, as set out in Table 4-2 in Volume 3, Chapter 4 of the ES, is appropriate.

Existing Environment

4.70 It is agreed that the methodology undertaken to characterise the existing environment, as set out in Volume 5, Annex 4.1 *Ecology Baseline Report* of the ES (document reference 6.2.5.4.1), provides an appropriate approach to describing the baseline environment.

4.71 It is agreed that the descriptions given in paragraphs 4.51 – 4.98 of Volume 3, Chapter 4 of the ES provide an accurate characterisation of the terrestrial ecology baseline appropriate to inform the assessment and that for all terrestrial ecology receptors identified, consideration of importance and the assignment of sensitivity, value and/or importance used within the assessment is appropriate.

Key Parameters for Assessment and Embedded Mitigation

4.72 It is agreed that the maximum adverse scenarios as defined in Table 4-16 of Volume 3, Chapter 4 of the ES, are clearly described, sufficiently justified and appropriate for assessing the potential impacts on terrestrial ecology during all phases of development.

4.73 It is agreed that there are no other scheme permutations, when considering the project details, which could lead to any greater terrestrial ecology effects than the realistic maximum adverse scenarios set out in Table 4-16.

4.74 It is agreed that paragraphs 4.101 – 4.105 and Table 4-17 of Volume 3, Chapter 4 of the ES describe the mitigation measures that have been embedded into the project design and demonstrate how the design has minimised harm to the environment.

4.75 It is agreed that the *Outline Landscape Strategy and Ecological Management Plan* (LSEMP) (document reference. 8.8) provides overarching principles and a suitable basis for the Ecological Management Plan (EMP) required to be submitted and approved pre-construction under the draft DCO (document reference 3.1).

4.76 It is agreed that the ecological receptors set out in paragraphs 4.106 – 4.108 and Table 4-18 of Volume 3, Chapter 4 of the ES have been appropriately scoped out of the assessment and that should Great Crested Newt be identified during pre-construction surveys that the provisions within the OLSEMP will ensure that no significant effects would arise on this species.

4.77 It is agreed that the embedded mitigation measures set out in Table 7-10 of Volume 3, Chapter 7 *Hydrology and Flood Risk* of the ES (document reference 6.2.3.7) are sufficient for the protection of the surface water environment and prevention of pollution of watercourses that may be used as habitat by protected species.

4.78 It is agreed that potential ecological air quality impacts have been appropriately considered in the assessment, including the site-specific mitigation measures to be adopted (as per the IAQM guidance), as detailed in paragraphs 10.50 - 10.71 of Volume 3, Chapter 10 *Air Quality* of the ES (document reference 6.2.3.10).

Assessment of Impacts

- 4.79 It is agreed that paragraphs 4.109 – 4.162 of Volume 3, Chapter 4 of the ES present an assessment of the potential impacts on terrestrial ecology arising from the construction, operation and decommissioning of the development, as per the requirements detailed in the relevant policy and legislation.
- 4.80 It is agreed that all potential impacts are predicted to be **minor adverse** or below and are therefore **not significant** as summarised in Table 4-33 of Volume 3, Chapter 4 of the ES.
- 4.81 It is agreed that the assessment has adequately considered impacts on European Protected Species (EPS) and the implementation of pre-construction survey work and, if necessary, the development and approval of a scheme of protection and mitigation measures for any identified EPS provides appropriate protection for those species.
- 4.82 It is agreed that NE issued a Letter of No Impediment (LONI) in relation to a draft application for a licence to close or interfere with badger setts within the proposed development boundary on 03 September 2015.

Mitigation and Monitoring

- 4.83 With respect to mitigation measures, with the exception of the potential impact on the LCGM priority sites A to E, it is agreed that given the generally low level of significance ascribed to the predicted changes to terrestrial ecology as a result of the construction, operation and decommissioning of the project, no specific mitigation is required.
- 4.84 With respect to monitoring measures, it is agreed that given the generally low level of significance ascribed to the predicted changes to terrestrial ecology as a result of the construction, operation and decommissioning of the project, no specific monitoring is required.
- 4.85 In relation to LCGM Sites A to E, it is agreed that applied mitigation is being developed through consultation with Natural England and Lincolnshire Wildlife Trust.
- 4.86 It is agreed that there are no new areas within the LCGM Target Area intersected by the Order Limits, which are currently anticipated to be included within the existing Higher Level Stewardship Agreements or the new Countryside Stewardship scheme and therefore there is no requirement to increase the cable burial depth in the LCGM Target Areas.
- 4.87 It is agreed that the proposed development will have no impact on future LCGM habitat creation in line with Appendix C of this SoCG.
- 4.88 It is agreed that there is no requirement to increase cable burial depth in LCGM Site B.

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- 4.89 It is agreed that landscaping around the IEC (as defined in paragraphs 7.3 – 7.7) and Substation (as defined in paragraphs 7.8 – 7.12) will have a beneficial effect on biodiversity.
- 4.90 It is agreed that hedgerow improvement as defined in paragraph 6.16 of the Outline LSEMP (document reference 8.8) will have a beneficial effect on biodiversity.

Cumulative Impacts

- 4.91 It is agreed that the projects scoped into the cumulative impact assessment, as detailed in Table 4-31, Volume 3, Chapter 4 of the ES are appropriate and reasonable in order to undertake the cumulative assessment for terrestrial ecology.
- 4.92 It is agreed that the impact scenarios considered within the assessment of potential cumulative terrestrial ecology impacts on, as presented in Tables 4-32 of Volume 3, Chapter 4, is appropriate.
- 4.93 It is agreed that the project has sufficiently considered all of the potential cumulative impacts to inform the assessment and that the outcome of the cumulative assessment presented in paragraph 4.180 – 4.183 of Volume 3, Chapter 4, which concludes that there are unlikely to be any significant impacts is appropriate.

Inter-related Effects

- 4.94 It is agreed that the assessment undertaken and detailed in Table 12-8 of Volume 3, Chapter 12 of the ES is appropriate, accurate, and that no significant inter-related impacts relative to terrestrial ecology are predicted from the project.

Land Use, Agriculture and Soils

4.95 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Land Use, Agriculture and Soils.

Scope and Methodology

4.96 It is agreed that the study area defined in paragraph 5.15 of Volume 3, Chapter 5 *Land Use, Agriculture and Soils* (document reference 6.2.3.5) of the ES is acceptable for the purposes of describing the baseline environment and understanding the potential impacts upon land use, agriculture and soils as a result of the proposed development.

4.97 It is agreed that, given the limited access granted by landowners for the purpose of pre-application site investigations, an appropriate suite of data sources, listed in paragraph 5.16 of Volume 3, Chapter 5, have been used to inform the baseline.

4.98 It is agreed that the impact assessment approach presented in paragraphs 5.17 – 5.22 of Volume 3, Chapter 5 the ES is based on appropriate methodologies and is fit for purpose for use in the assessment of land use, agriculture and soils impacts.

Existing Environment

4.99 It is agreed that the methodology, set out in Volume 5, Annex 5.1 *Land Use, Agriculture and Soils Baseline Study* (document reference 6.2.3.5) of the ES and undertaken to characterise the existing environment around the proposed development, provides an appropriate approach to describing the land use, agriculture and soils baseline environment.

4.100 It is agreed that the descriptions given in paragraphs 5.23 – 5.48 of Volume 3, Chapter 5 of the ES provide an accurate and appropriate characterisation of Land Use, Agriculture and Soils based on the existing data available from literature and site specific surveys.

Key Parameters for Assessment and Embedded Mitigation

4.101 It is agreed that the maximum adverse scenarios as defined in Table 5-6 of Volume 3, Chapter 5 of the ES, are clearly described, sufficiently justified and appropriate for assessing the potential impacts on land use, agriculture and soils during all phases of development.

4.102 It is agreed that there are no other scheme permutations, when considering the project details, which could lead to any greater effect on land use, agriculture and soils than the realistic maximum adverse scenarios set out in Table 5-6.

- 4.103 It is agreed that table 5-7 of Volume 3, Chapter 5 of the ES describes the mitigation measures that have been embedded into the project design and demonstrate how the design has sought to minimise harm to the environment.
- 4.104 It is agreed that the implementation of a Soil Management Plan (SMP), and the employment of a qualified Agricultural Liaison Officer (ALO), will ensure appropriate protection, conservation and reinstatement of the land during and following the construction phase.
- 4.105 It is agreed that the commitment that soil handling, placing, compaction and management will be undertaken in accordance with best practice (Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, DEFRA, 2009) as set out in paragraph 5.1 of the *Outline Soil Management Plan* (SMP) (document reference 8.7.5), in addition it is agreed that this is appropriate mitigation for the management of best and most versatile agricultural land.
- 4.106 It is agreed that the Outline SMP (document reference 8.7.5) provides a suitable indicative form of the SMP required under the draft DCO (document reference 3.1).

Assessment of Impacts

- 4.107 It is agreed that paragraphs 5.53 – 5.96 of Volume 3, Chapter 5 of the ES present an assessment of the potential impacts on land use, agriculture and soils arising from all stages of development, as per the requirements detailed in the relevant policy and legislation.

Construction

- 4.108 It is agreed that effects of **moderate significance** have been appropriately predicted in relation to the temporary disruption to agricultural land use during the construction phase, where receptors are of very high sensitivity, and following full reinstatement of areas impacted by construction activities the effect on agricultural operations has been appropriately assessed as **negligible**.
- 4.109 It is agreed that impacts on ALC Grade 1, 2, 3 and 4 land through soil disturbance during the construction phase have been adequately assessed and presented in paragraphs 5.67 – 5.73 of Volume 3, Chapter 5 of the ES and following the implementation of measures set out in the SMP, effects of **minor significance** have been appropriately predicted.
- 4.110 It is agreed that the impacts on soil resources during the construction phase have been adequately assessed and effects of **negligible significance** have been appropriately identified in paragraphs 5.72 – 5.73 of Volume 3, Chapter 5 of the ES.

4.111 It is agreed that the impacts on land subject to agri-environmental schemes during the construction phase have been adequately assessed in paragraphs 5.74 – 5.77 of Volume 3, Chapter 5 of the ES and effects of **negligible significance** have been appropriately identified.

Operation

4.112 It is agreed that the impacts on land use, agriculture and soils during the operational phase have been adequately assessed in paragraphs 5.78 – 5.93 of Volume 3, Chapter 5 of the ES.

4.113 It is agreed that it is appropriate that effects of **minor significance** have been identified in relation to permanent change to agricultural land use associated with the operation of the proposed Substation and Intermediate Electrical Compound.

4.114 It is agreed that it is appropriate that effects of **minor significance** have been identified in relation to ALC land use associated with the operation of the proposed Substation and Intermediate Electrical Compound.

4.115 It is agreed that it is appropriate that effects of **minor significance** have been identified in relation to the permanent restriction of land use within the cable easement.

4.116 It is agreed that it is appropriate that effects of **negligible significance** have been identified in relation to impacts on crops as a result of heat dispersion from buried cables.

Decommissioning

4.117 It is agreed that the decommissioning phase impacts on land use, agriculture and soils have been adequately considered in paragraphs 5.94 – 5.96 of Volume 3, Chapter 5 of the ES.

4.118 It is agreed that potential adverse impacts on land use, agriculture and soils as a result of the cable decommissioning would relate to specific areas within the cable corridor for which mitigation would be designed and agreed with the relevant planning authority prior to decommissioning taking place.

Mitigation and Monitoring

4.119 With respect to mitigation measures, with the exception of the potential impact on the Lincolnshire Coastal Grazing Marsh (LCGM), it is agreed that given the generally low level of significance ascribed to the predicted changes to land use, agriculture and soils as a result of the construction, operation and decommissioning of the project, no further specific mitigation is required beyond that which is already embedded into the project design and secured through the management plans required by the DCO.

4.120 It is agreed that it is appropriate that soil handling, placing, compaction and management will be undertaken in accordance with best practice guidelines (DEFRA, 2009) in line with the Outline Soil Management (document reference 8.7.5).

Cumulative Impacts

4.121 It is agreed that the projects scoped into the cumulative impact assessment, as detailed in Table 5-8 of Volume 3, Chapter 5 of the ES are appropriate and reasonable in order to undertake the cumulative assessment for land use, agriculture and soils.

4.122 It is agreed that the scenarios considered within the assessment of potential cumulative impacts on land use, agriculture and soils, as presented in Table 5-9 of Volume 3, Chapter 5 of the ES are appropriate.

4.123 It is agreed that the project has sufficiently considered all of the potential cumulative impacts to inform the assessment and that the outcome of the cumulative assessment presented in paragraphs 5.116 – 5.119 of Volume 3, Chapter 5 of the ES, which concludes no predicted significant effects, is accurate.

Inter-related Effects

4.124 It is agreed that the assessment undertaken and detailed in Table 12-9 of Volume 3, Chapter 12 of the ES is appropriate, accurate, and there is very limited scope for significant inter-related impacts relative to land use, agriculture and soils.

Marine Physical Environment

4.125 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Marine Physical Environment.

Scope and Methodology

4.126 It is agreed that the Marine Physical Environment study area defined in 2.16 – 2.18 of Volume 2, Chapter 2 *Marine Physical Environment* (document reference 6.2.2.2) of the ES is appropriate for the purposes of describing the baseline environment and understanding the potential impacts upon Marine Physical Environment from the proposed development.

4.127 It is agreed that the impact assessment approach presented in paragraphs 2.19 – 2.40 of Volume 2, Chapter 2 of the ES is based on appropriate methodologies for the assessment of Marine Physical Environment impacts and that it is fit for purpose for use in the assessment process.

4.128 It is agreed that characterisation of the existing environment in the study area is accurate and appropriate and is informed by available project specific data and other publically available information. An overview of Project specific data and reports is provided in paragraphs 2.41 – 2.69 of Volume 2, Chapter 2 of the ES.

4.129 It is agreed that relevant guidance, detailed in paragraph 2.11 of Volume 2, Chapter 2, of the ES, has been used to inform the assessment approach.

Existing Environment

4.130 It is agreed that the methodology undertaken to characterise the existing environment around the proposed development with respect to Marine Physical Environment, as set out in paragraph 5.20 of Volume 2, Chapter 5 of the ES, is appropriate to identify and describe the baseline environment.

4.131 It is agreed that the descriptions given in paragraphs 2.41 – 2.69 of Volume 2, Chapter 2, of the ES provide an accurate and appropriate characterisation of Marine Physical Environment based on the existing data available from literature and site specific surveys.

Key Parameters for Assessment

4.132 Following discussions of section 8 of Natural England's Relevant Representation, which are outlined in Appendix A, *Offshore Audit Sheet* and subject to the provision of a clarification note confirming Natural England's present understanding of the assessment and impacts on the Marine Physical Environment, paragraphs 4.133 – 4.146 below are agreed in principle.

- 4.133 It is agreed that a maximum adverse scenario has been established according to the Design Envelope principles, using project specification details given in Volume 2, Chapter 1 *Offshore Project Description* (document reference 6.2.2.1) of the ES.
- 4.134 It is agreed that the realistic maximum adverse scenarios relating to each of the potential impacts on the Marine Physical Environment during all phases of development, as defined in Table 2-10 of Volume 2, Chapter 2 of the ES, are appropriate for assessing the maximum potential impacts on Marine Physical Environment.
- 4.135 It is agreed that there are no other scheme permutations, when considering the project details set out in Volume 2, Chapter 1 of the ES, which could lead to any greater effect on the Marine Physical Environment than the realistic maximum adverse scenarios set out in Table 2-10.
- 4.136 It is agreed that the scenarios identified are clearly described and sufficiently justified.
- 4.137 It is agreed that Table 2-11 of Volume 2, Chapter 2 of the ES describes the mitigation measures that have been embedded into the project design and demonstrate how the design has minimised harm to the environment.

Assessment of Impacts

- 4.138 It is agreed that paragraphs 2.74 – 2.179 of Volume 2, Chapter 2 of the ES present an assessment of the potential impacts on the Marine Physical Environment arising from all stages of the TKES development, in accordance with the requirements detailed in the relevant policy and legislation.
- 4.139 It is agreed that there are no significant effects from construction on Marine Physical Environment as defined and summarised in Table 2-15 of Volume 2, Chapter 2 of the ES.
- 4.140 It is agreed that there are no significant effects from operation on Marine Physical Environment as defined and summarised in Table 2-15 of Volume 2, Chapter 2 of the ES.
- 4.141 It is agreed that there are no significant effects from decommissioning on Marine Physical Environment as defined and summarised in Table 2-15 of Volume 2, Chapter 2 of the ES.

Cumulative Impacts

- 4.142 It is agreed that the projects scoped into the cumulative impact assessment, as detailed in Table 2-13 of Volume 2, Chapter 2 of the ES are appropriate and

reasonable in order to undertake the cumulative assessment for Marine Physical Environment.

4.143 It is agreed that the Design Envelope scenario considered within the assessment of potential cumulative impacts on Marine Physical Environment, as presented in Table 2-14 of Volume 2, Chapter 2 of the ES, is appropriate for assessing the maximum likely cumulative impacts on Marine Physical Environment.

4.144 It is agreed that the project has sufficiently considered all of the potential cumulative impacts to inform the assessment. In addition the outcome of the cumulative assessment presented in paragraphs 2.180 – 2.228 of Volume 2, Chapter 2 of the ES which concludes that there are unlikely to be any significant impacts, is accurate.

Inter-related Effects

4.145 It is agreed that the assessment undertaken and detailed in the ES Table 12-2 of Volume 2, Chapter 12 Inter-related Effects (offshore) of the ES is appropriate, accurate, and that no significant impacts on Marine Physical Environment are predicted from the project with respect to inter-related impacts.

Mitigation and Monitoring

4.146 With respect to mitigation measures, it is agreed that given the generally low level of significance ascribed to the predicted changes to Marine Physical Environment as a result of the construction, operation and decommissioning of the project, no specific applied mitigation or monitoring is required.

Marine and Intertidal Ornithology

4.147 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Marine and Intertidal Ornithology.

Scope and Methodology

4.148 It is agreed that the Marine and Intertidal Ornithology study area defined in 3.16 – 3.18 of Volume 2, Chapter 3 *Marine and Intertidal Ornithology* (document reference 6.2.2.3) of the ES is appropriate for the purposes of describing the baseline environment and understanding the potential impacts upon Marine and Intertidal Ornithology from the proposed development.

4.149 It is agreed that the impact assessment approach presented in paragraphs 3.26 – 3.32 Volume 2, Chapter 3 of the ES is based on appropriate methodologies for the assessment of Marine and Intertidal Ornithology impacts and that it is fit for purpose for use in the assessment process.

4.150 Characterisation of the existing environment in the study area is accurate and appropriate and is informed by available project specific data and other publically available information. An overview of Project specific data and reports is provided in paragraph 3.19 of Volume 2, Chapter of the ES.

4.151 It is agreed that relevant guidance as detailed in paragraph 3.10 of Volume 2, Chapter 3 of the ES has been used to inform the assessment approach.

Existing Environment

4.152 It is agreed that the methodology undertaken to characterise the existing environment around the proposed development with respect to Marine and Intertidal Ornithology, as set out in paragraphs 3.19 – 3.25 of Volume 2, Chapter 3 of the ES, provides an appropriate approach to describing the baseline environment.

4.153 It is agreed that the descriptions given in paragraphs 3.33 – 3.64 of Volume 2, Chapter 3 of the ES provide an accurate and appropriate characterisation of Marine and Intertidal Ornithology based on the existing data available from literature and site specific surveys.

Key Parameters for Assessment

4.154 It is agreed that a maximum adverse scenario has been established according to the Design Envelope principles, using project specification details given in Volume 2, Chapter 1 *Offshore Project Description* of the ES.

4.155 It is agreed that the realistic maximum adverse scenarios relating to each of the potential impacts on Marine and Intertidal Ornithology during all phases of

development, as defined in Table 3-10 of Volume 2 Chapter 3 Marine and Intertidal Ornithology (document reference 6.2.2.3) of the ES, are appropriate for assessing the maximum potential impacts on Marine and Intertidal Ornithology.

4.156 It is agreed that there are no other scheme permutations, when considering the project details set out in the Project Description in the ES (Volume 2 Chapter 1), which could lead to any greater effect on Marine and Intertidal Ornithology than the realistic maximum adverse scenarios set out in Table 3-10.

4.157 It is agreed that the scenarios identified are clearly described and sufficiently justified.

4.158 It is agreed that due to the limited construction period and the absence of operation/maintenance impacts no embedded mitigation measures need to be incorporated into the project design to address effects on Marine and Intertidal Ornithology.

4.159 It is agreed that standard practice vessel management will be employed by all vessel operators and as such, areas where numbers of birds are noted to be rafting will be actively avoided to minimise disturbance as detailed in paragraph 3.72 of Volume 2 Chapter 2 Marine Physical Environment of the ES.

Assessment of Impacts

4.160 It is agreed that paragraphs 3.73 – 3.87 of Volume 2 Chapter 3 Marine and Intertidal Ornithology (document reference 6.2.2.3) of the ES present an assessment of the potential impacts on Marine and Intertidal Ornithology arising from all stages of the TKES development, as per the requirements detailed in the relevant policy and legislation.

4.161 It is agreed that there are no significant effects from construction on Marine and Intertidal Ornithology as defined in Volume 2, Chapter 3 and summarised in Table 3.13 of the ES.

4.162 It is agreed that there are no significant effects from operation on Marine and Intertidal Ornithology as defined in Volume 2, Chapter 3 and summarised in Table 3.13 of the ES.

4.163 It is agreed that there are no significant effects from decommissioning on Marine and Intertidal Ornithology as defined in Volume 2, Chapter 3 and summarised in Table 3.13 of the ES.

Cumulative Impacts

4.164 It is agreed that the projects scoped into the cumulative impact assessment, as detailed in Table 3-11 Volume 2 Chapter 3 Marine and Intertidal Ornithology (document

reference 6.2.2.3) of the ES are appropriate and reasonable in order to undertake the cumulative assessment for Marine and Intertidal Ornithology.

4.165 It is agreed that the Design Envelope scenario considered within the assessment of potential cumulative impacts on Marine and Intertidal Ornithology, as presented in Table 2-12 Volume 2 Chapter 3 Marine and Intertidal Ornithology, is appropriate for assessing the maximum likely cumulative impacts on Marine and Intertidal Ornithology.

4.166 It is agreed that the project has sufficiently considered all of the potential cumulative impacts to inform the assessment. In addition the outcome of the cumulative assessment presented in paragraphs 3.88 – 3.110 of Volume 2 Chapter 3 of the ES which concludes that there are unlikely to be any significant impacts, is accurate.

Inter-related Effects

4.167 It is agreed that the assessment undertaken and detailed in the ES Table 12-2 (Volume 2, Chapter 12) is appropriate, accurate, and that no significant impacts on Marine and Intertidal Ornithology are predicted from the project with respect to inter-related impacts.

Mitigation and Monitoring

4.168 With respect to mitigation measures, it is agreed that given the generally low level of significance ascribed to the predicted changes to Marine and Intertidal Ornithology as a result of the construction, operation and decommissioning of the project, no specific mitigation is required.

4.169 With respect to monitoring measures, it is agreed that given the generally low level of significance ascribed to the predicted changes to Marine and Intertidal Ornithology as a result of the construction, operation and decommissioning of the project, no specific monitoring is required.

Subtidal and Intertidal Ecology

4.170 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Subtidal and Intertidal Ecology.

Scope and Methodology

4.171 It is agreed that the Subtidal and Intertidal Ecology study area defined in paragraphs 4.23 – 4.24 of Volume 2, Chapter 4 *Subtidal and Intertidal Ecology* (document reference 6.2.2.4) of the ES is appropriate for the purposes of describing the baseline environment and understanding the potential impacts upon Subtidal and Intertidal Ecology from the proposed development.

4.172 It is agreed that the impact assessment approach presented in paragraphs 4.31 – 4.40 of Volume 2, Chapter 4 of the ES is based on appropriate methodologies for the assessment of Subtidal and Intertidal Ecology impacts and that it is fit for purpose for use in the assessment process.

4.173 It is agreed that characterisation of the existing environment in the study area is accurate and appropriate and is informed by available project specific data and other publically available information. An overview of Project specific data and reports is provided in paragraphs 4.25 – 4.30 of Volume 2, Chapter 4 of the ES.

Existing Environment

4.174 It is agreed that the methodology undertaken to characterise the existing environment around the proposed development with respect to Subtidal and Intertidal Ecology, as set out in paragraphs 4.41 – 4.73 of Volume 2, Chapter 4 of the ES, is appropriate to characterise the environment.

4.175 It is agreed that the descriptions given in paragraphs 4.41 – 4.73 of Volume 2, Chapter 4 of the ES provide an accurate and appropriate characterisation of Subtidal and Intertidal Ecology based on the existing data available from literature and site specific surveys.

Key Parameters for Assessment and Embedded Mitigation

4.176 It is agreed that a maximum adverse scenario has been established according to the Design Envelope principles, using project specification details given in Volume 2, Chapter 1 *Offshore Project Description* (document reference 6.2.2.1) of the ES.

4.177 It is agreed that the realistic maximum adverse scenarios relating to each of the potential impacts on Subtidal and Intertidal Ecology during all phases of development, as defined in Table 4-7 of Volume 2, Chapter 4 of the ES, are appropriate for assessing the maximum potential impacts on Subtidal and Intertidal Ecology.

4.178 It is agreed that there are no other scheme permutations, when considering the project details set out in Volume 2, Chapter 1 of the ES, which could lead to any greater effects on Subtidal and Intertidal Ecology than the realistic maximum adverse scenarios set out in Table 4-7.

4.179 It is agreed that the scenarios identified are clearly described and sufficiently justified.

4.180 It is agreed that Table 4-8 of Volume 2, Chapter 4 of the ES describes the mitigation measures that have been embedded into the project design and demonstrate how the design has minimised harm to the environment.

Assessment of Impacts

4.181 It is agreed that paragraphs 4.90 – 4.182 of Volume 2, Chapter 4 of the ES present an assessment of the potential impacts on Subtidal and Intertidal Ecology arising from all stages of the TKES development, in accordance with the requirements detailed in the relevant policy and legislation.

4.182 It is agreed that there are no significant effects from construction on Subtidal and Intertidal Ecology as defined in Volume 2, Chapter 4 and summarised in Table 4-11 of the ES.

4.183 It is agreed that there are no significant effects from operation on Subtidal and Intertidal Ecology as defined in Volume 2, Chapter 4 and summarised in Table 4-11 of the ES.

4.184 It is agreed that there are no significant effects from decommissioning on Subtidal and Intertidal Ecology as defined in Volume 2, Chapter 4 and summarised in Table 4-11 of the ES.

Cumulative Impacts

4.185 It is agreed that the projects scoped into the cumulative impact assessment, as detailed in Table 4-9 of Volume 2, Chapter 4 of the ES are appropriate and reasonable in order to undertake the cumulative assessment for Subtidal and Intertidal Ecology.

4.186 It is agreed that the Design Envelope scenario considered within the assessment of potential cumulative impacts on Subtidal and Intertidal Ecology, as presented in Table 4-10 of Volume 2, Chapter 4 of the ES is appropriate for assessing the maximum likely cumulative impacts on Subtidal and Intertidal Ecology.

4.187 It is agreed that the project has sufficiently considered all of the potential cumulative impacts to inform the assessment. In addition, the outcome of the cumulative assessment presented in paragraphs 4.183 – 4.265 of Volume 2, Chapter 4 of the ES which concludes that there are unlikely to be any significant effects, is accurate.

Inter-related Effects

4.188 It is agreed that the assessment undertaken and detailed in Table 12-3 of Volume 2, Chapter 12 *Inter-related Effects* (offshore) of the ES is appropriate, accurate, and no significant effects on Subtidal and Intertidal Ecology are predicted from the project with respect to inter-related impacts.

Mitigation and Monitoring

4.189 With respect to mitigation measures, it is agreed that given the generally low level of significance likely to be experienced by Subtidal and Intertidal Ecology receptors during the construction and operation of the project, no specific applied mitigation or monitoring is required.

4.190 With respect to decommissioning it is agreed that the draft decommissioning plan will secure the removal of cable protection in line with standard practices at the time of decommissioning and in consultation with the relevant statutory nature conservation bodies.

Fish and Shellfish Ecology

- 4.191 It is agreed that Natural England defer to CEFAS in matters related to fish and shellfish.
- 4.192 It is agreed that Natural England do not have any outstanding concerns in relation to impacts to fish and shellfish.

Marine Mammals

4.193 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Marine Mammals.

Scope and Methodology

4.194 It is agreed that the Marine Mammals study area defined in 6.18 – 6.20 of Volume 2, Chapter 6 *Marine Mammals* (document reference 6.2.2.6) of the ES is appropriate for the purposes of describing the baseline environment and understanding the potential impacts upon Marine Mammals from the proposed development.

4.195 It is agreed that the impact assessment approach presented in paragraphs 6.25 – 6.40 of Volume 2, Chapter 6 of the ES is based on appropriate methodologies for the assessment of Marine Mammals impacts and that it is fit for purpose for use in the assessment process.

4.196 It is agreed that characterisation of the existing environment in the study area is accurate and appropriate and is informed by available project specific data and other publically available information. An overview of Project specific data and reports is provided in paragraphs 6.21 – 6.24 of Volume 2, Chapter 6 of the ES.

4.197 It is agreed that relevant guidance as detailed in paragraphs 6.8 – 6.10 of Volume 2, Chapter 6 has been used to inform the assessment approach.

Existing Environment

4.198 It is agreed that the methodology undertaken to characterise the existing environment around the proposed development with respect to Marine Mammals, as set out in paragraphs 6.18 – 6.24 of Volume 2, Chapter 6 of the ES, provides an appropriate approach to describing the baseline environment.

4.199 It is agreed that the descriptions given in paragraphs 6.41 – 6.50 of Volume 2, Chapter of the ES provide an accurate and appropriate characterisation of Marine Mammals based on the existing data available from literature and site specific surveys.

Key Parameters for Assessment

4.200 It is agreed that a maximum adverse scenario has been established according to the Design Envelope principles, using project specification details given in Volume 2, Chapter 1 *Offshore Project Description* (document reference 6.2.2.1) of the ES.

4.201 It is agreed that the realistic maximum adverse scenarios relating to each of the potential impacts on Marine Mammals during all phases of development, as defined in Table 6-7 of Volume 2 Chapter of the ES, are appropriate for assessing the maximum potential impacts on Marine Mammals.

4.202 It is agreed that there are no other scheme permutations, when considering the project details set out in the Project Description in the ES (Volume 2 Chapter 1), which could lead to any greater effect on Marine Mammals than the realistic maximum adverse scenarios set out in Table 6-7.

4.203 It is agreed that the scenarios identified are clearly described and sufficiently justified.

4.204 It is agreed that Table 6-8 of Volume 2 Chapter 6 Marine Mammals of the ES describes the mitigation measures that have been embedded into the project design and demonstrate how the design has minimised harm to the environment.

Assessment of Impacts

4.205 It is agreed that paragraphs 6.61 – 6.73 of Volume 2 Chapter 6 of the ES present an assessment of the potential impacts on Marine Mammals arising from all stages of the TKES development, as per the requirements detailed in the relevant policy and legislation.

4.206 It is agreed that there are no significant effects from construction on Marine Mammals as defined in Volume 2, Chapter 6 and summarised in Table 6.11 of the ES.

4.207 It is agreed that there are no significant effects from operation on Marine Mammals as defined in Volume 2, Chapter 6 and summarised in Table 6.11 of the ES.

4.208 It is agreed that there are no significant effects from decommissioning on Marine Mammals as defined in Volume 2, Chapter 6 and summarised in Table 6.11 of the ES.

Cumulative Impacts

4.209 It is agreed that the projects scoped into the cumulative impact assessment, as detailed in Table 6-9 Volume 2 Chapter of the ES are appropriate and reasonable in order to undertake the cumulative assessment for Marine Mammals.

4.210 It is agreed that the Design Envelope scenario considered within the assessment of potential cumulative impacts on Marine Mammals, as presented in Table 6-10 Volume 2 Chapter 6 of the ES, is appropriate for assessing the maximum likely cumulative impacts on Marine Mammals.

4.211 It is agreed that the project has sufficiently considered all of the potential cumulative impacts to inform the assessment. In addition the outcome of the cumulative assessment presented in paragraphs 6.74 – 6.102 of Volume 2 Chapter 6 of the ES which concludes that there are unlikely to be any significant impacts, is accurate.

Inter-related Effects

4.212 It is agreed that the assessment undertaken and detailed in the ES Table 12-2 of Volume 2, Chapter 12 *Inter-related Effects* (offshore) of the ES is appropriate, accurate, and that no significant impacts on Marine Mammals are predicted from the project with respect to inter-related impacts.

Mitigation and Monitoring

4.213 With respect to mitigation measures, it is agreed that given the generally low level of significance ascribed to the predicted changes to Marine Mammals as a result of the construction, operation and decommissioning of the project, no specific mitigation or monitoring is required.

Offshore Nature Conservation

4.214 This section of the SoCG sets out those aspects of the Application that are agreed in relation to Offshore Nature Conservation.

Scope and Methodology

4.215 It is agreed that the Offshore Nature Conservation study area defined in 7.17 – 7.19 of Volume 2 Chapter 7 *Offshore Nature Conservation* (document reference 6.2.2.7) of the ES is appropriate for the purposes of describing the baseline environment and understanding the potential impacts upon Offshore Nature Conservation from the proposed development.

4.216 It is agreed that the impact assessment approach presented in the relevant chapters for each receptor as specified in paragraphs 7.30 – 7.32 of Volume 2, Chapter 7 of the ES is based on appropriate methodologies for the assessment of Offshore Nature Conservation impacts and that it is fit for purpose for use in the assessment process.

4.217 It is agreed that characterisation of the existing environment in the study area is accurate and appropriate and is informed by available project specific data and other publically available information. An overview of Project specific data and reports for each of the designated sites is provided in Table 7-7 of Volume 2, Chapter 7 of the ES.

4.218 It is agreed that relevant guidance (detailed in paragraphs 7.9 – 7.10 of Volume 2, Chapter 7 of the ES) has been used to inform the assessment approach.

Existing Environment

4.219 It is agreed that the methodology undertaken to characterise the existing environment around the proposed development with respect to Offshore Nature Conservation, as set out in paragraphs 7.20 – 7.33 of Volume 2, Chapter 7 of the ES, is appropriate to characterise the environment.

4.220 It is agreed that the descriptions given in paragraphs 7.34 – 7.63 of Volume 2, Chapter 7 of the ES provide an accurate and appropriate characterisation of Offshore Nature Conservation based on the existing data available from literature and site specific surveys.

Key Parameters for Assessment and Embedded Mitigation

4.221 Following discussions of section 8 of Natural England's Relevant Representation, which are outlined in Appendix A, *Offshore Audit Sheet* and subject to the provision of a clarification note confirming Natural England's present understanding of the assessment and impacts on Offshore Nature Conservation, paragraphs 4.222 – 4.226 below are agreed in principle.

- 4.222 It is agreed that a maximum adverse scenario has been established according to the Design Envelope principles, using project specification details given in Volume 2, Chapter 1 *Offshore Project Description* (document reference 6.2.2.1) of the ES.
- 4.223 It is agreed that the realistic maximum adverse scenarios relating to each of the potential impacts on Offshore Nature Conservation during all phases of development, as defined in Table 7-8 of Volume 2, Chapter 7 of the ES, are appropriate for assessing the maximum potential impacts on Offshore Nature Conservation.
- 4.224 It is agreed that there are no other scheme permutations, when considering the project details set out in Volume 2, Chapter 1 of the ES, which could lead to any greater effect on Offshore Nature Conservation than the realistic maximum adverse scenarios set out in Table 7-8.
- 4.225 It is agreed that the scenarios identified are clearly described and sufficiently justified.
- 4.226 It is agreed that Table 7-9 of Volume 2, Chapter 7 of the ES describes the mitigation measures that have been embedded into the project design and demonstrate how the design has minimised harm to the environment. In addition it is agreed that removal of cable protection is not included in Table 7-9 as this will be based on standard practices and consultation undertaken at the time of decommissioning.

Assessment of Impacts

- 4.227 It is agreed that paragraphs 7-70 – 7-101 of Volume 2 Chapter of the ES present an assessment of the potential impacts on Offshore Nature Conservation arising from all stages of development, in accordance with the requirements detailed in the relevant policy and legislation.
- 4.228 It is agreed that there are no significant effects of construction on Offshore Nature Conservation as defined in Volume 2, Chapter 7 and summarised in Table 7-15 of the ES.
- 4.229 Following discussions of section 4.3 of Natural England’s Relevant Representation, which are outlined in Appendix A, *Offshore Audit Sheet* and subject to the provision of a clarification note confirming Natural England’s present understanding of the assessment and impacts on Offshore Nature Conservation, paragraphs 4.230 and 4.232- 4.234 below are agreed in principle.
- 4.230 It is agreed that there are no significant effects of operation on Offshore Nature Conservation as defined in Volume 2, Chapter 7 and summarised in Table 7-15 of the ES.

4.231 It is agreed that there are no significant effects of decommissioning on Offshore Nature Conservation as defined in Volume 2, Chapter 7 and summarised in Table 7-15 of the ES.

Cumulative Impacts

4.232 It is agreed that the assessment of cumulative impacts on nature conservation drew on the detail included in Volume 2 Chapter 2 *Marine Physical Environment*; Volume 2, Chapter 3 *Marine and Intertidal Ornithology*; Volume 2, Chapter 4 *Subtidal and Intertidal Ecology* and Volume 2, Chapter 6 *Marine Mammals* of the ES as described in paragraph 7.104 of Volume 2, Chapter 7 of the ES along with those detailed in Tables 7-12 and 7-13 and paragraph 7.108 of Volume 2, Chapter 7 of the ES and that these provided an appropriate and reasonable cumulative assessment for Offshore Nature Conservation.

4.233 It is agreed that the Design Envelope scenario considered within the assessment of potential cumulative impacts on Offshore Nature Conservation, as presented in Table 7-12 (Seabed Habitat Disturbance) and 7-13 (Habitat Change) Volume 2, Chapter 7 of the ES, is appropriate for assessing the maximum likely cumulative impacts on Offshore Nature Conservation.

4.234 It is agreed that the project has sufficiently considered all of the potential cumulative impacts to inform the assessment. In addition, the outcome of the cumulative assessment presented in paragraphs 7.102 – 7.111 of Volume 2, Chapter 7 of the ES which concludes that there are unlikely to be any significant effects, is accurate.

Inter-related Effects

4.235 It is agreed that the assessment undertaken and detailed in Table 12-2 of Volume 2, Chapter 12 *Inter-related Effects* (offshore) of the ES is appropriate, accurate, and no significant effects on Offshore Nature Conservation are predicted from the project with respect to inter-related impacts.

Mitigation and Monitoring

4.236 With respect to mitigation measures, it is agreed that given the generally low level of significance likely to be experienced Offshore Nature Conservation receptors during the construction, operation and decommissioning of the project, no specific applied mitigation or monitoring is required. Mitigation that has been embedded into the design is described in paragraph 4.226.

Other Documents

Report to Inform Appropriate Assessment

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- 4.237 It is agreed that the characterisation of the site, subject to the pre-construction survey provided for within the annex I monitoring and mitigation plan, as described in the *Report to Inform Appropriate Assessment* (document reference 5.3) is appropriate.
- 4.238 Following discussions of section 8 of Natural England's Relevant Representation, which are outlined in Appendix A, *Offshore Audit Sheet* and subject to the provision of a clarification note confirming Natural England's present understanding of the assessment and impacts on Offshore Nature Conservation, it is agreed in principle that the project will not have an adverse effect on the features of the IDRBNR SCI either alone or in-combination with other projects, as described in the Report to Inform Appropriate Assessment.
- 4.239 It is agreed that the Red Throated Divers may be a qualifying feature for the Greater Wash region that is proposed to be promoted as a candidate SPA as described in the Report to Inform Appropriate Assessment.
- 4.240 It is agreed that significant effects on the future Greater Wash SPA from the project can be ruled out, as stated in Appendix B.
- 4.241 It is agreed that the assessment of potential impacts on Red Throated Diver, as described in the Red Throated Diver Technical Note (document reference 6.2.4.3.1) are appropriate.

Offshore Operations and Maintenance Plan

- 4.242 It is agreed that the Outline Operations and Maintenance Plan (O&MP) (document reference 8.14) is appropriate and reasonable to inform the final O&MP.

Draft Development Consent Order (DCO) and deemed Marine Licence (DML)

- 4.243 Natural England wish to defer matters relevant to their remit on the DCO and DML until after the Issue Specific Hearing.

5. MATTERS UNDER DISCUSSION

Marine Physical Environment

- 5.1 The parties have agreed paragraphs 4.133 – 4.146 in principle as described in paragraph 4.132. The clarification note will be provided to Natural England and an update will be provided to the ExA for Deadline 2.
- 5.2 The parties have not yet reached agreement with respect to monitoring measures as described in row 19 of Appendix A *Offshore Audit Sheet*. Discussions are ongoing and an update will be provided to the ExA for Deadline 2.

Offshore Nature Conservation

- 5.3 The parties have agreed paragraphs 4.230, 4.222- 4.256 and 4.232- 4.234 in principle as described in paragraph 4.221. The clarification note will be provided to Natural England and an update will be provided to the ExA for Deadline 2.

Report to Inform Appropriate Assessment

- 5.4 The parties have not yet reached agreement with respect to the assessment of potential impacts on the IDRBNR conservation objectives. Discussions are ongoing and an update will be provided to the ExA for Deadline 2.
- 5.5 The parties have not yet reached agreement with respect to the conclusions of the Report to Inform Appropriate Assessment. Discussions are ongoing and an update will be provided to the ExA for Deadline 2.

Draft Development Consent Order (DCO) and deemed Marine Licence (DML)

- 5.6 Although NE were consulted and provided comment on the draft DCO and dML prior to submission of the application NE wish to defer any further comment on the DCO and DML until after the Issue Specific Hearing.

APPENDICES

Appendix A: Offshore Audit Sheet

Rep Number	Para number	Issue Raised	Applicant comments	Consultee Response	Open/closed?
176	2.1, 2.2, 2.3, 2.4, 2.5, 2.6	<p>The natural features potentially affected by this application</p> <p>The designated sites relevant to this application are: Special Protection Areas (SPAs) - The following sites are those for which the interest features may be affected by the proposed project based on the birds present during site surveys and excluding features outside of the maximum foraging ranges for which Natural England have outstanding concerns: Site name - Distance from Project site (indicative) - Features for which outstanding concerns remain North Norfolk Coast SPA - Within 12 nautical miles - None – scoped out Flamborough Head and Bempton Cliffs SPA - Within 12 nautical miles - None – scoped out Gibraltar Point SPA - Within 12 nautical miles - None – scoped out The Wash SPA - Within 12 nautical miles - None – scoped out Humber SPA - Within 12 nautical miles - None – scoped out</p> <p>Special Areas of Conservation (SACs) - The following sites and interest features are those which may be affected by the proposed project: Site name - Distance from Project site (indicative) - Features for which outstanding concerns remain Wash and North Norfolk Coast SAC - Within 12 nautical miles None – scoped out Inner Dowsing, Race Bank, and North Ridge SCI - Partial overlap with offshore cable route - Annex 1 Habitats Sandbanks which are slightly covered by seawater all the time, Reefs Humber Estuary SAC - Within 12 nautical miles - None – scoped out Saltfleetby-Theddlethorpe Dunes and Gibraltar Point SAC - Adjacent to landfill areas - None – scoped out</p> <p>Ramsar sites - The following interest features are those which may be affected by the proposed project based on the birds present during site surveys and excluding features outside of the maximum foraging ranges for which Natural England have outstanding concerns: Site name - Distance from Project site (indicative) - Features for which outstanding concerns remain Gibraltar Point - Within 12 nautical miles - None – scoped out</p>	Comments noted		Closed
176	3.4	Natural England is currently reviewing the wording within the draft DCO and provides details of any initial concerns in section 6. Natural England will continue to review the draft DCO and provide any further details within its Written Representations after further pre-examination discussions, or will agree to wording directly with the Applicant through the Statement of Common Ground.	Noted, no further action		
176	4.2.1	<p>4.2 Project Description</p> <p>Because the cable route has been amended, the Applicant will need to demonstrate using the results of the pre-construction Annex I surveys that the impacts would be within the limits set out in both this the Environmental Statement and that for the consented windfarm array. Impacts will need to be avoided or reduced throughout the IDRBNR SCI – in line with the advice provided to the MMO on post construction surveys for other Offshore Windfarms within the boundary of the SCI due to potential impacts to Annex I habitats and greater impacts in terms of footprint size, permanent loss of sediment etc.</p>	The Applicant notes that for the purposes of the ES, assumptions on the presence of Annex I features within the IDRBNR SCI were required, in particular for the Sabellaria reef features given their ephemeral nature. The Applicant has secured a commitment within the draft DML (Schedule 9, Part 2, Condition 12) to undertake pre-construction Annex I surveys to ensure that the presence and location of such features are identified prior to construction activities commencing. This will enable the mitigation and working practices identified within the Application to be adhered to and therefore similarly ensure that impacts arising will be within those limits set out in the ES.	<p>Claire Ludgate will confirm what route they took as baseline and was comfortable that pre-construction survey secured in DCO. This ties in with detailed comments 2.4 & 2.5 below.</p> <p>Lou Burton confirmed just clarifying that previous route was assessed, no questions regarding current route.</p>	Closed
176	4.2.2	Natural England advises that due to concerns in relation to the use of, and subsequent impacts of cable protection, on the reef features of the IDRBNR SCI (and the potential for it to establish); cable protection would need to be used as a last resort. Natural England advise that any cable protection used should be removed at the time of decommissioning in order to enable the site to return to its condition prior to construction (predominantly soft sediment) and Annex I reef features to recover.	See row 39.		Closed

176	4.2.2	Other potential issues related to the use of cable protection are the long-term interruption to sediment transport and concerns that the supply of sediment to other protected sites along the Lincolnshire Coast could be affected. Natural England does not believe that this would have a significant impact on the designated coastal sites based on the information provided in the Environmental Statement; however there is a residual impact that post construction bathymetric monitoring would help to answer any remaining concerns.	<p>The Applicant highlights the information provided within the Application (paragraph 2.157 et seq., Volume 2, Chapter 2, Marine Physical Environment (Doc Ref 6.2.2.2)) where it is detailed that that following installation an initial period of sediment accumulation would be expected to occur, creating a smooth slope across any cable protection material used. Considering the natural conditions at the site, characterised by relatively high rates of sediment mobility across the region (and especially within shallow inshore/ nearshore areas), this process may take place over a period of a few months or less.</p> <p>Sand sediment transport is effected in two principal modes: saltation and bedload.</p> <p>Saltation is the process by which sands are moved up into the water column. These suspended sands would be expected to move freely over the top of the cable protection material, regularly becoming deposited upon it.</p> <p>Saltation is not predicted to be significantly influenced by the presence of the rock armour such that existing transport process will remain unaffected. Bedload is the process by which sands move while still in contact with the seabed. Bedload will be temporarily affected up until such time that the armour is covered by sand. This is expected to occur relatively quickly due to saltation as noted above, together with the region's high rates of transport. Once covered bedload will continue because the slope angle presented by sections of protected cable would (at most) be in the order of 15 to 20° which is within the natural range of bed slope angles associated with bed forms mapped within the corridor. Accordingly, for all areas in which cable protection is used (including where sand waves are present), it is not expected that the presence of the cable protection will affect patterns of sediment transport following the initial period of accumulation. Given that there is no residual impact predicted, the Applicant maintains that no specific bathymetric surveying post-construction should be required.</p>	<p>Claire Ludgate advised NE are currently drafting a paper arguing that monitoring results from a number of projects demonstrate sediment movement differed from the modelled predictions in the EIA, resulting in free spanning cables. The paper is not currently available but NE will provide us with a copy when available.</p> <p>The current draft dML condition 13 (2)(b) requires a post-construction bathymetry survey to ensure cable burial has been achieved. NE are requesting, in addition to this survey, a longer monitoring campaign, likely to include that Year 1 post construction survey of the whole cable route, and a Year 3 and Year 5 post construction survey of either the whole route or only areas where cable protection has been used based on the results of the previous surveys.</p> <p>Claire Ludgate confirmed any monitoring will not be linked to wider-scale sediment transport monitoring, and would only be required within the order limits.</p> <p>Lou advised paper on Lincs and Sherringham Shoal demonstrating that there are change in sediment composition post construction that are causing concern for sites along coast reliant on this. Need to ensure sediment transport not impacted. More of an issue for array than cable for this project- will need addressing as part of O&M plan- statement in SoCG to say addressing in context of wider project.</p>	Open
176	4.3.1	<p>4.3 Intertidal and Subtidal Ecology</p> <p>In addition to the point made below in Appendix 1, in section 1.164 of the chapter, we query the assessment of potential impacts to Sabellaria Spinulosa reef in section 4.162 (4-38). In this section the direct disturbance/impacts are reported to be negligible. However Natural England considers that this may not be the case for an area of reef. The activities currently proposed have a level of risk associated with Annex I habitats and/or habitats of ecological importance that Natural England would like to seek clarification on as part of the examination process or through an agreement to provide a detailed Operation and maintenance plan prior to construction when a detailed survey of the full export cable route has been undertaken and further information is available.</p>	<p>The Applicant would highlight that it is not anticipated that significant maintenance work will be required for the operational phase of the proposed development, however assessment has been made on such activities during the lifetime of the project. Where there is potential for reef to have developed over the cables, should these be required to be lifted/replaced etc. as part of maintenance activities, this status will be confirmed by pre-maintenance survey. Whilst it is not possible to avoid disturbance of any such reef that has developed over a cable that requires lifting, the survey will provide information on the development of reef on the seabed post construction (cable installation) disturbance or on cable protection material, both of which would provide confidence that the re-establishment of reef over the infrastructure is likely to occur after the maintenance activities have been completed.</p> <p>The Applicant would also highlight that the pre-construction surveys will provide detailed data on the presence and status of any reef formations along the cable corridor to ensure that such features can be avoided when the initial cable laying operations are undertaken, thus minimising any potential for impacts to arise against the existing (natural) baseline conditions at the time of construction. It is also notable that Sabellaria reef can be an ephemeral feature and as such, whilst recognising the need to avoid existing reef where possible at the time of construction, data collected on seabed character pre-construction would only be indicative of the locations of reef features over the lifetime of the project (acknowledging that the identification areas with higher potential to support reef is possible and will inform the assessment of impact 'risk'). The relevance therefore of survey data for such ephemeral features informing a detailed operation and maintenance plan for the duration of the project is, in the Applicant's opinion, of limited merit; thus it is suggested that pre-survey of areas where maintenance is required is an appropriate approach.</p> <p>Notwithstanding the above, the Applicant highlights that Condition 7(1)(i) of the draft DML secures the provision of 'an offshore operations and maintenance plan in accordance with the outline offshore operations and maintenance plan to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase'.</p>	<p>Claire Ludgate advised she will confirm that NE are content OMP is produced prior to operation and not construction (as NE RR comments suggest). CL agreed it is usual for this to be produced as currently set out in dML Condition 7(1)(i).</p> <p>Claire requested that a rationale is given for the operation and maintenance figures outlined in the ES. This is to form part of a clarification note to NE.</p> <p>Lou Burton requested that OMP is referred to as O&MP to avoid confusion with the Ornithological plan (not required to TKES but to ensure consistency). All activities over lifetime of project that could impact on important habitats need to be considered upfront- need to recognise that sand-dunes are covered by NERC priority habitats and need to be considered up front. Need to consider impacts on terrestrial sand dunes e.g. annual access to transition joint bays. Lou happy that detail is provided prior to operation but feels that this is not appropriate assessed on terrestrial side. Paul confirmed TJB's are landward of the dunes so no designated sites crossed for operations. We do not feel re-excavating cable under dunes on beach realistic. Lou confirmed if this is the case then there is no further work for us to do on this.</p>	Closed
176	4.3.2	4.196 onwards (4-43) cumulative impacts assessment – Natural England notes that cumulative impacts to Annex I habitats are not anticipated and are therefore not considered further in the assessment on the basis that projects should avoid impacting Annex 1 habitats as part of their mitigation measures. Whilst Natural England agrees that this is the case for installation of the cable, Natural England advises that there remains uncertainty in relation to potential impacts to Annex I habitats such as Sabellaria spinulosa reef that have the ability to establish post-installation and may therefore be affected by maintenance operations. Therefore Natural England seeks assurances from TKOWL about how this will be addressed.	As above	<p>Claire Ludgate is going to confirm with Louise Burton that NE just want clarity on this not a re-assessment and suggested a call with Louise to discuss.</p> <p>Lou confirmed that they wanted clarification there assumption was correct, Tim and Sean confirmed this is the case and maintenance work would be preceded by surveys to confirm if Sabellaria is present.</p>	closed
176	4.4.1	<p>4.4 Marine Mammals</p> <p>Natural England has no major concerns about impacts to marine mammals from Special Areas of Conservation based on the assessment in the Environmental Statement.</p>	Noted, no further action		closed

176	4.4.2, 4.4.3	<p>However, Natural England would like to highlight to the Planning Inspectorate that on 16th October 2014 the UK received formal correspondence (Reasoned Opinion) from the European Commission outlining its position regarding the number of Special Areas of Conservation (SACs) for harbour porpoise in the UK under the EU Habitats Directive. The Joint Nature Conservation Committee (JNCC) have undertaken a new analysis of the largest and most comprehensive set of data for harbour porpoise in UK waters, with the aim of identifying possible sites for SAC designation. The JNCC has recently given its initial advice to Government, which indicates that there are several potential sites around the UK which could be designated for harbour porpoise. There is more work to do before JNCC's final advice to governments will be ready. Together with the statutory nature conservation bodies, JNCC will be refining the current advice and developing site documentation in line with usual Marine Protected Area processes. This will include some informal information gathering from key stakeholders over the next few months. There is currently an ambitious timetable in place to progress this work, but Natural England would expect a formal consultation to be launched in summer 2015 (subject to clearance). The analysis conducted by JNCC has been carried out at the UK level. Although the designation of SACs is a devolved responsibility, there is a coordinated effort underway to consider potential sites.</p> <p>Should formal consultation be launched in summer 2015, the impacts on the proposed designated features of these sites may require consideration for the project as a whole recognising the fundamental impacts will occur during turbine foundation installation and not cable installation. This may require either further work during the examination process to assess the impacts on the sites, or a review of consents process after examination and decision, should Development Consent be granted.</p>	<p>The Applicant understands that the proposals for possible SAC sites for harbour porpoise will be publically consulted upon in the summer of 2015. The Applicant will continue to engage with Natural England to discuss any implications arising from the potential designation of such sites as and when information is brought forward. The Applicant would highlight, however, that the principal issues are likely to be related to wind turbine foundation installation activities (involving piling) rather than cable installation as proposed for the Triton Knoll Electrical System.</p>	<p>Claire Ludgate advised that this comment was for advice only, to make sure that it is easy for us to update when pSAC status confirmed and to ensure that we liaise with the relevant people.</p>	Closed
176	4.5.1	<p>Report to Inform Appropriate Assessment</p> <p>Page 33 of the report, paragraph 1.70 - It should be recognised that assessing permanent habitat loss against the whole site, will be an underestimate of the impacts to the Sabellaria spinulosa reef feature which is found in a small area of a large site dominated by sandbanks. Additionally, consideration of habitat loss from the placement of cable protection is not compactable with the "restore" conservation objective. However, through discussions with the Applicant, Natural England understands that the use of cable protection will be limited to chalk areas and cable crossings and that the recovery of the site will be considered at the time of decommissioning with removal of cable protection required where recovery has been hindered.</p>	<p>The Applicant confirms that cable protection will only be used in areas where sub-surface installation is not practicable, with the removal of any such material to be assessed and agreed as part of the decommissioning plan and in line with legislation and guidance in place at that time.</p> <p>The Applicant would clarify, however, that for the purposes of the assessment presented in the Application, a conservative assumption has been used that the entirety of the cable protection material would be employed within the boundaries of the SCI and that the calculation (worst case) of the permanent habitat loss arising on the Sabellaria spinulosa reef feature has not been made against the entirety of the SCI site. Rather, and as agreed with Natural England within the EIA Evidence Plan, Regional Environmental Characterisation data has been utilised for the purposes of identifying the extent of the functional biological community for the purposes of this assessment. The Applicant therefore considers that the estimate of habitat loss within the SCI has been appropriately assessed within the ES.</p>	<p>Claire Ludgate noted that the wording of the NE RR may be misleading- NE understand that the assessed project envelope doesn't limit cable protection to only cable crossings and chalk areas. CL will confirm with Louise Burton where this information came from. CL agreed that these issues will be dealt with at the time the final decommissioning plan is agreed.</p> <p>Lou confirmed that cable protection most likely to be used at these locations but aware that may be used elsewhere.</p>	Closed
176	4.5.2	<p>Page 34 of the report, paragraph 1.7.1 - In relation to the MMO byelaw wording - it is important to note that although under the byelaw the whole site does not need to be closed for site integrity to be maintained, the implication of the wording in the byelaw is that some of the site must be closed. Natural England has taken the first step under the core reef approach to identify closed areas, but this is adaptive and therefore continues to be reviewed and amended accordingly. It should also be noted that the whole site would not be closed as it is a site for sandbanks and reef. Larger areas of sand are not expected to be good for reef formation and sandbanks are an order of magnitude larger in scale. If this were a site just for reef it would be considerably smaller and the relative area open to active adaptive management would be much bigger.</p>	<p>The Applicant notes the comments made by Natural England in respect to the MMO byelaw, however within this section of the Report to Inform Appropriate Assessment, the Applicant is merely drawing upon the supporting evidence document for the byelaw to highlight that wholesale closure is not a pre-requisite for the development (and recovery) of the reef feature of the SCI. The Applicant further notes that the pre-construction surveys, designed to identify reef along the cable corridor, will provide for the protection (through avoidance) of existing reef features. It is the Applicant's opinion, therefore, that this approach is wholly consistent with the intention to act to protect 'core reef' areas.</p>	<p>Claire Ludgate advised this is just a point to note, no revision to RIAA is required regarding this comment.</p>	Closed
176	4.5.3	<p>Page 41 of the report - Overall Natural England does not disagree with the conclusions of the Report to Inform the Appropriate Assessment. However Natural England does advise that in addition to the mitigation measures currently proposed to ensure 'maintenance' of reef, the Applicant would need to ensure that activities and cable protection are implemented in such a way that the seabed continues to function ecologically and geomorphologically as before and/or that once decommissioned the Inner Dowsing, Race Bank and North Ridge SCI can recover.</p>	<p>As noted above, the use of cable protection material (where cables cannot be buried) is not predicted to affect patterns of sediment transport following the initial period of sediment accumulation. Since the natural seabed character is determined largely by the sediment transport regime, no changes to the ecological and geomorphological functioning of the seabed area is predicted, as noted and supported in the ES.</p>	<p>Claire Ludgate will confirm with Louise Burton that this is sufficient and that nothing further is required</p> <p>Lou advised comment regarding removal at time of decommissioning.</p>	Closed
176	5.1, 5.1.1	<p>5. Other Outstanding Matters Requiring Attention</p> <p>Marine Physical Environment</p> <p>Natural England seeks further details on the following minor issues in order to improve assessment and to allow the Examining Authority to properly undertake its task. These are detailed in Appendix 1.</p>	<p>Noted, no further action</p>		Closed
176	5.1.2	<p>Cable protection: In selecting cable protection types and methods their removability at the time of decommissioning should be considered in relation to impacts on the IDRBNR SCI.</p>	<p>The Applicant confirms that cable protection will only be used in areas where sub-surface installation is not practicable, with the removal of any such material to be assessed and agreed as part of the decommissioning plan and in line with legislation and guidance in place at that time.</p> <p>The choice of material to be used for cable protection will be made according to the engineering studies and requirements for the specifics of the site and as agreed with the MMO as part of the construction method statement as secured in the draft DML Part 2, Condition 7(1)(c) and 7(1)(e), the latter condition including details of the 'need, type, sources, quantity and installation methods for cable armouring and a statement of the total area and volume of cable armouring material to be installed, to be within the scope of the environmental impact assessment recorded in the environmental statement.'</p>	<p>Claire Ludgate advised that this comment will need to be addressed only when the decommissioning plan is submitted and is to make us aware of their expectations.</p> <p>Lou confirmed not a point for us to do anything with and this is to be addressed when cable protection is assessed post consent and to make us aware of NE position.</p>	Closed

176	5.1.3	There is no assessment here of the likely quantity of cable protection to be installed. Natural England welcomes further discussion on this topic in order to establish a worst case scenario of the maximum footprint caused by the cable protection. Recent post-construction reports have highlighted that some wider impacts to sediment composition and benthic communities are being evidenced suggesting that impacts to sediment transport regimes may be greater than anticipated. Natural England would therefore have the expectation that cable protection footprints should be minimised and should only be used as a last resort after all other options have been exhausted, particularly within the IDRBNR SCI (due to the presence of Annex I habitats) and the near shore and inshore area (due to the greater level of sediment transport within the 10m depth contour).	<p>The Applicant refers Natural England to Table 2-10, Volume 2, Chapter 2 Marine Physical Environment (document reference 6.2.2.2) of the ES where the maximum footprint of cable protection material is specified. The assessment presented within this chapter is based on these maximum values.</p> <p>The Applicant confirms that cable protection material will only be utilised where cable burial is not practicable. As noted above, the use of cable protection will be agreed with the MMO as part of the construction method statement as secured in the draft DML, Part 2, Condition 7(1)(c) and 7(1)(e), the latter condition including details of the 'need, type, sources, quantity and installation methods for cable armouring and a statement of the total area and volume of cable armouring material to be installed, to be within the scope of the environmental impact assessment recorded in the environmental statement.'</p> <p>The Applicant also highlights that as a result of the small scale of the cable protection proposed (particularly in terms of height), the use of cable protection material is not predicted to affect patterns of sediment transport following the initial period of sediment accumulation (paragraph 2.157 et seq., Volume 2, Chapter 2 Marine Physical Environment (document reference 6.2.2.2) of the ES).</p> <p>The Applicant also highlights that maximum footprints arising from the use of cable protection material, resulting in maximum potential changes to sediment transport and potential permanent habitat loss, are given in both Table 2-10, Volume 2, Chapter 2 Marine Physical Environment of the ES (document reference 6.2.2.2); and Table 4-7, Volume 2, Chapter 4 Intertidal and Subtidal Ecology of the ES (document reference 6.2.2.4). The assessments presented in these chapters are based on these assumed maximum dimensions of impact footprint.</p>	<p>Claire Ludgate confirmed that she believed that having the maximum amounts already defined was sufficient and that therefore having these as a condition in the DML should not be required but will confirm with Louise Burton that this is just standard advice.</p> <p>Lou advised not a decision for NE but for MMO but MMO have requested this. Paul advised not something MMO have raised but that we will pick up with them. Lou confirmed that NE are happy with assessment.</p>	Closed
176	5.1.4	Cumulative impacts: Natural England highlights that TKOWL should acknowledge that Hornsea project 2 application under tier 3 has entered the examination phase	The Applicant notes the comment from Natural England.	Claire advised that this is best covered off by a statement in the SoCG that refers to the advise from NE in the RR and confirms that we have moved to a different tier and there is no change to assessment as the boundary is so similar to Hornsea 1.	Open
176	6.1, 6.2	<p>6. Matters that must be secured by requirements in the DCO</p> <p>Natural England considers that the following issues should be secured within the Development Consent Order.</p> <p>Natural England also expect a detailed Environmental Monitoring Plan to be provided prior to construction and advise that this should be secured by way of a condition of the deemed marine licence</p>	Condition 13 details post-construction surveys	<p>Claire Ludgate requested we refer back to monitoring requested earlier and requested that a clarification note was provided with all of the post construction surveys detailed (what, when and where).</p> <p>Claire advised that they had not yet been through the DCO in detail but that the DCO normally had a list of post-construction surveys and that they would want this included there.</p>	Open
176	6.3	Natural England considers it would be beneficial for the Development Consent Order to quantify the details of operation and maintenance works.	The Applicant has provided details as far as can be predicted at this stage on the type and quantity of maintenance activities during operation, based on conservative assumptions as to the total length of cables, cable protection material disturbance etc. The Applicant refers Natural England to Condition 7(1)(i) of the draft DML, which secures the provision of 'an offshore operations and maintenance plan in accordance with the outline offshore operations and maintenance plan to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase'.	Claire Ludgate confirmed that the most sensible approach would be to secure the outline OMP which includes these figures in the DCO, rather than listing the figures in the DCO.	Closed
176	6.3	<p>Comments on the draft DCO</p> <p>Natural England's head office at Foundry House in Sheffield is now closed. The address of the new head office is: Natural England Foss House Kings Pool 1-2 Peasholme Green York North Yorkshire YO1 7PX Tel: 0300 060 1911</p>	Noted, will be changed		Closed
176	1.1	<p>Appendix 1 – Detailed comments</p> <p>Volume 2: Offshore Chapters</p> <p>1. Project Description</p> <p>Paragraph 1.142 cable protection: Natural England advises that in order to minimise impacts to the benthic environment, the amount of cable protection used should be kept to a minimum; fully justified where needed; and that protection should be used that most closely mimics the natural environment in order to allow the greatest potential for recovery and re-colonisation e.g. similar size and composition of material. In addition, where cable protection is required within a designated site full consideration should be given to removal at the time of decommissioning.</p>	As noted above, the Applicant confirms that cable protection will only be used in areas where sub-surface installation is not practicable, with the removal of any such material to be assessed and agreed as part of the decommissioning plan and in line with legislation and guidance in place at that time. The choice of material to be used for cable protection will be made according to the engineering studies and requirements for the specifics of the site and as agreed with the MMO as part of the construction method statement as secured in the draft DML, Part 2, Condition 7(1)(c) and 7(1)(e), the latter condition including details of the 'need, type, sources, quantity and installation methods for cable armouring and a statement of the total area and volume of cable armouring material to be installed, to be within the scope of the environmental impact assessment recorded in the environmental statement.'	See row 24 and 39 above.	Closed

176	1.2	Paragraph 1.164 – There is insufficient detail provided here to assess the potential impacts from cable repairs as 12 repairs could take place and as written these could be up to 6 km in length in any worst case scenario. Natural England would like to understand the rationale behind what has been included in the Environmental Statement. In addition there is no assessment of the cumulative impacts due to re-installation using cable laying, associated impacts and rock armouring.	<p>The Applicant highlights that the ES presents an assessment of operational maintenance activities based on a worst case assumption of up to 6 km of cable over up to 12 operations (Paragraphs 4.158-4.166, Volume 2, Chapter 4 Intertidal and Subtidal Ecology of the ES (document reference 6.2.2.4). For the purposes of the assessment it has been assumed that the recovery and re-installation of the cables is effected by the most impacting technique (jetting).</p> <p>The Applicant also notes that the assessment of such maintenance activities on benthic ecology has been undertaken on the assumption of disturbance effects on a 'pristine/baseline' community as per the construction phase assessment. This is considered to be precautionary since, depending on the period between installation and maintenance works, the community may still be at a 'recovery' phase following completion of construction and hence impacts would be lower than for a fully recovered, effectively 'baseline' community subject to the same impacts.</p> <p>The assessment presented for the proposed development covers all phases of the project and as such provides for 'cumulative' assessment for the project as a whole. The cumulative assessment section, as defined in Volume 1, Annex 3.1, Approach to Cumulative and Inter-relationships Impact Assessment for the Triton Knoll Electrical System of the ES (document reference 6.2.1.3.1), considers the potential for cumulative effects to arise from the project alongside other proposed developments and any other reasonably foreseeable projects. Volume 2, Chapter 12 Inter-related Effects of the ES (document reference 6.2.2.12) presents an assessment of impacts across the different temporal stages of the project.</p>	Lou confirmed no comments or questions on this and happy to have SoCG statement to say happy with what has been assessed.	Closed
176	1.2	Natural England expects a detailed operation and maintenance plan to be provided prior to construction and advise that this should be a condition of the marine licence.	The Applicant refers Natural England to Condition 7(1)(i) of the draft DML, which secures the provision of 'an offshore operations and maintenance plan in accordance with the outline offshore operations and maintenance plan to be submitted to the MMO at least four months prior to commencement of operation of the licensed activities and to provide for review and resubmission every three years during the operational phase'.	Lou confirmed happy with this.	Closed
176	1.3	Use of cable protection: Natural England notes that the offshore cables will be buried where it is feasible or economic to do so. It should be highlighted that it is Natural England's preference to bury cables to the specified minimum cable depth (stated as 1.5m in general; with a 1m burial in chalk area (3.5km of route) and 3m burial in intertidal area) and that cable protection should only be used as a final option.	The Applicant confirms that cable protection will only be used in areas where sub-surface installation is not practicable. The Applicant refers Natural England to the draft DML, Part 2, Condition 7(1)(f)(ii), which secures the requirement to provide 'a detailed cable laying plan, incorporating a burial risk assessment to ascertain suitable burial depths and cable laying techniques, including cable protection'. The Applicant notes Natural England's stated preferences, however burial depths identified within the Application are indicative 'target' depths; the actual burial depth possible will be informed by the cable burial assessment.	<p>Claire Ludgate was comfortable with the fact that the depths were not specified as minimum depths but target/assessment depths and that the final depths would be informed by the Cable Burial Assessment.</p> <p>Lou agrees.</p>	Closed
176	1.4	Cable laying techniques: Natural England notes that TKOWL is considering the use of a pre-lay plough with a rock cutting tool / vibrating share plough. The report states that the area of seabed disturbed will not alter – however impacts of different techniques need to be fully considered and presented, i.e. stock piling of material, loss of certain habitats through more invasive disturbance etc.	The Applicant refers Natural England to Paragraphs 1.106 et seq., Volume 2, Chapter 1 Offshore Project Description of the ES (document reference 6.2.2.1) where the options for cable laying techniques are set out, together with the characteristics, footprint areas (widths) and the potential for side casting of material and / or creation of sediment berms etc. identified for each technique. With specific reference to the use of ploughs, Natural England are correct in identifying that potential variants to the ploughs may be used (including rock cutter or vibrating share plough) but the statement made is that utilising these modified ploughs will not increase the area affected (rather than the area of seabed disturbed will not alter). This is an important clarification as the assessments presented in subsequent chapters of the ES adopt a design envelope approach to ensure that the worst case is assessed (thus providing for any other options from which impacts arising would demonstrably be the same or less). Where any technique creates a unique impact source, this is assessed specifically as part of the ES within the relevant chapter.	<p>Claire Ludgate requested that we revisit the Project Description chapter and check the information provided. Of particular interest is if different techniques create different berm profiles (i.e. one sided or both side of the trench). A brief clarification note to be produced to explain assessment.</p> <p>Lou advised nothing further to add.</p>	Open
176	1.5	Mechanical Trenching: If mechanical trenching is to be used where areas of cobble and gravel are expected. Natural England highlights that cobbles are important ecological features and therefore impacts should be minimised and mitigation measures adopted where appropriate as required under the NERC Act.	The Applicant notes that mechanical trenching is one of the cable installation options included with the assessed Project Envelope. With the exception of the nearshore area, where mechanical trenching may not be possible, mechanical trenching may be used along the entire length of the cable route (not just areas of cobbles and/or gravel). This technique has a pre-defined track width which cannot be reduced for particular sections of the cable route.	<p>Claire Ludgate advised that she will check why mechanical trenching has been highlighted (wider footprint than jetting/ ploughing?) and confirm what they want us to do. Claire advised we need to limit impacts where possible.</p> <p>Lou advised more about habitat than tool- comment relates more to impact on habitat and minimising impacts. Lou confirmed assessment covers this just want to highlight need to minimise impact. Lou advised not width that is a problem, it is scale of the impact i.e. microsite around best quality habitat or add remedial/restoration works. Recognise that we are not expecting this but want to highlight this in case it is found. This is for NERC act priority habitats under section 40 and 41.</p>	Closed
176	1.6	It should be noted that the maximum footprint is calculated based on the assumption that this mechanical trenching would be used for installation along the whole length of the export cable corridor, even though it could not be used in shallow water. Acknowledging that they are working to a worst case scenario, the Applicant should still be providing a realistic worst case scenario that takes into account installation techniques in shallow water.	The Applicant notes Natural England's comment, and acknowledges that in some areas such as in shallow water areas, the assessed case may lead to a degree of double counting of near-field deposition/smothering effects, however it is only the quantum of impact that may be overestimated; the nature of the impacts arising is accurate. The Applicant suggests that such assumptions are not miss-representative of the impacts arising and that the assumptions made, taking a worst-case approach, are appropriate and realistic.	<p>Claire Ludgate suggested that this should be put in SoCG as an area of agreement.</p> <p>Lou agreed</p>	Closed
176	2.1	2. Intertidal and Subtidal Ecology 4.154 (4-37) - cable protection flagged as a benefit. However, Natural England disagrees that a change in biological communities within the boundary of a SCI is a benefit	The Applicant wishes to clarify that within Paragraphs 4.154 and 4.258, Volume 2, Chapter 4 Intertidal and Subtidal Ecology of the ES (document reference 6.2.2.4), it is stated that cable protection emplacement is considered to represent (and is assessed as) a long term habitat change and a potential adverse impact. A subsequent point is the made that this could be regarded having beneficial impacts in providing new habitats for different faunal assemblages to colonise, however this 'benefit' is not taken through or considered as part of the EIA.	<p>Claire Ludgate advised she was comfortable with the explanation that is was not taken through assessment as a benefit.</p> <p>Lou agreed.</p>	Closed
176	2.2	2.2 Table 4-9 - This table is out of date as Hornsea Project 1 is now consented. There is also no mention of the Tetney Sealine replacement project that is likely to have inspections happening over the lifetime of the nearly constructed pipeline.	<p>The Applicant notes Natural England's correction on Hornsea Project 1 (consent having been granted).</p> <p>The Tetney Sealine project was not included within the cumulative assessment since it lies outside the study area defined for the ES, even at its closest point within the estuary.</p>	Points agreed in SoCG	Closed

176	2.3	Natural England notes that the existing fisheries byelaw/management areas for Sabellaria spinulosa are not included/discussed in this chapter and neither are any variations to these byelaw areas. It should be noted that further consideration is being given to additional fisheries byelaws within the IDRBNR SCI and the near shore areas within the vicinity of the export corridor have not been ruled out. No further information can be provided at this time, however Natural England will inform TKOWL when information becomes available.	Noted, no further action		Closed
176	2.4, 2.5	Subtidal Annex 6.2.4.4.1 - Natural England notes that the actual cable corridor has not been surveyed. There has been agreement with the developer at previous meetings that additional data sources could be used to fill the evidence gap. We believe that the evidence presented demonstrates that there is the potential for Sabellaria spinulosa reef to be present along the export cable corridor. Therefore, we advise that an Annex I pre construction survey is required (condition of DML) and that micro siting around Annex I reef features will need to be adopted as a mitigation measure.	The Applicant would highlight that the baseline characterisation for the offshore cable route has been agreed as adequate under the EIA Evidence Plan process. The Applicant notes that Sabellaria reef is an exception to this given the ephemeral nature of the feature, however the Applicant would highlight that provision has been made for this, as secured within the draft DML, Part 2, Condition 12(2)(a), which requires a pre-construction Annex I survey to identify the presence of any Sabellaria 'reef' in order to inform the cable installation.	See comments against 4.2.1 above.	Closed
176	2.6	Due to the ephemeral nature of Sabellaria spinulosa Natural England advise that all geophysical surveys, drop down video and grab survey data should be undertaken at the same time to ensure the features are adequately sampled and surveys should be concurrent with those surveys required for the array to enable adequate comparisons between data sets and to fully consider cumulative impacts.	Surveys will be appropriately scheduled depending on construction activities. The Applicant would highlight that the principal objective for Annex I surveys across the wider project (i.e. the Array and Electrical System) will be to ensure that contemporary data to inform construction activities in relation to the potential presence of Sabellaria reef features and this may require temporal separation between these two aspects of the proposed development, pending construction scheduling.	Claire Ludgate advised that detail would need to be discussed at a later date when agreeing survey scope. Lou advised within same timeframe e.g. summer 2016 so relevant. Lou confirmed recognising potential difference between array and cable- after 1 year geophysical out of date, if there is a longer gap NE will advise MMO that further surveys are required.	Closed
176	2.7	Intertidal Annex 6.2.4.4.2 – As peat and clay exposures with piddocks are habitats of principle importance under section 41 of the NERC Act 2006, Natural England advise that whilst these habitats are transient in nature, impacts to any areas of these habitats identified prior to construction should be avoided.	The Applicant confirms that where possible such habitats will be avoided, however the assessment undertaken has had to assume that avoidance of these features is not possible.	CL agreed that due to ephemeral nature of sand cover of clay/peat exposures, and limited ability to understand locations of covered area of peat/clay, the chance to avoid these features is limited. Claire Ludgate will confirm with Louise Burton if this is just for our information or if we need to do anything regarding this. Lou advised this discussion would occur post consent and NE will not make a decision on this but need to ensure Examiners, LCC and MMO are comfortable with this.	Open
176	2.8	It is noted that this is a highly eroding coast and that currently the Lincs Shore scheme undertakes beach re-nourishment at this location which is due to cease in 2015. Whilst it is recognised that coastal protection in some form may still continue, there is no guarantee that it will or to what degree or in what form. Therefore, when considering cable burial depths, increased erosion and possible beach lowering should be taken into account. Potential operations and maintenance requirements to rebury the cable over the life time of the project should also take this into account. It should be noted that in Natural England's experience the majority of offshore windfarm projects have needed to undertake maintenance, repair or reburial work to cables after installation.	Whilst the current phase of beach re-nourishment is expected to cease in 2015, it is assumed that the coastline will be protected in accordance with the existing shoreline management plan which in this area, is 'Hold the Line'. Accordingly, if beach re-nourishment stops, alternative shoreline management measures (such as recycling) will most likely be considered. It is possible that these alternative management measures may lead to local changes in beach morphology although the extent to which this could occur is not possible to assess in the absence of detailed management plans. However, these would be available well before the anticipated start date of construction (2018) and would be considered within the cable burial studies undertaken to inform engineering requirements. Condition 7(1)(f)(ii) requires TK to produce a detailed cable laying plan including a 'burial risk assessment to ascertain suitable burial depths'.	Ryan Hildred and Claire Ludgate confirmed that they are happy to agree this later (as per burial risk assessment) when more is known regarding the hold the line approach and likely continued (or amended) Lincs Shore scheme. Lou confirmed happy with this.	Closed
176	3.1	3. Marine and Intertidal Ornithology We note that the sensitivity/importance of Ornithological Receptors appears to have been inconsistently assessed for several species within Table 3-8. For example, Red-throated Diver is a feature of the Outer Thames SPA, yet this species' sensitivity has been assessed as Medium. As a cited feature of an SPA, this species should be assessed as Very High (see Table 3-5). A change to the Applicant's assessment will not alter Natural England's concluding advice on the project's effects on ornithological receptors. Nevertheless, we point to this as a matter of consistency.	Noted.	Lou advised she has spoken to Melissa regarding operational port and we will need to take this into account during vessel operations. Standard conditions which shouldn't add any burden to us but will reduce risk to regulators. Lou advised any operational works (inc cable) should recognise and avoid RTD. Condition to be included in ES consent- gone to MMO today but they have not had a chance to discuss with them as yet.	Open
	3.2, 3.3	In line with our previous advice, Natural England considers that the development will not impact the local populations of Red-throated Diver and, thus, will have no likely significant effect on the Red-throated Diver populations of the Outer Thames SPA or any potential future SPAs in the Greater Wash area. We also agree that further consideration of impacts on Red-throated Diver relating to the offshore aspects of the scheme can be scoped out of further EIA work. Despite this conclusion, due to the presence of Red-throated Diver and other species sensitive to vessel disturbance (albeit in low densities) Natural England considers that it would be good practice to programme construction to occur over one winter only. Whilst not essential, if accommodated, this would reduce disturbance to a minimum.	The Applicant acknowledges Natural England's suggestion that disturbance could be kept to a minimum during the over-wintering period. At this stage the overall programme of the development has not been determined and as such the need for a two year construction period is required to enable sufficient flexibility. The maximum duration is two years as described in Volume 2, Chapter 1 Offshore Project Description and assessed in subsequent chapters. In addition Paragraph 3.71 of Volume 2, Chapter 7 Marine and Intertidal Ornithology highlights that in light of the limited duration of the construction period and the absence of operation/maintenance impacts it is not considered necessary for any marine ornithology monitoring or mitigation measures.	Lou advised preference for one period, nothing further to add	Closed
176	4.1	4. Fish and Shellfish Natural England welcomes the consultations with the fishing industry to date and would like to stress the importance of ongoing liaison to minimise disruptions to fishing activities.	Noted. The Applicant will continue to engage with the fishing industry		Closed

176	5.1	<p>5. Marine Mammals</p> <p>Corkscrew injuries to seals. Since 2008, there has been increasing concern over the number of seal carcasses washing up at various locations on the UK coast all displaying the same fatal injuries. Grey seals and harbour (common seals) are features of the Humber Estuary SAC and The Wash and North Norfolk Coast SAC respectively. The carcasses comprised predominantly adult female harbour seals in the summer months and newly-weaned grey seal pups in the winter. Each carcass displays a characteristic set of injuries consisting of a single smooth edged wound typically starting on the side of the head and spiralling around the body.</p> <p>5.2 Interaction with ship's propellers, and more specifically ducted propellers, was considered the most likely cause, based, to some extent, on the conclusion that such a wound could not be inflicted by any natural predator and the results of scale model trials. However, there is now new evidence suggesting that an explanation could be attack and predation by adult male grey seals. So far, grey seals have only been seen to attack and predate upon newly weaned grey seal pups and juvenile common seals, but it is possible that adult grey males could attack adult female harbour seals. Given the lack of direct evidence of predation on adult harbour seals, combined with the evidence from recent experiments showing similar injuries could be caused by ducted propellers, neither option can be ruled out. However, this does mean that ducted propellers may not be the risk once thought. Natural England is considering this new information and would expect further developments in the coming months. Marine Scotland has recently released interim guidance concerning these new developments which supersedes the previous SNCB guidance regarding measures to be taken in the vicinity of haul out sites.</p>	Noted, no further action	NE advised points to note	Closed
176	6.1, 6.2, 6.3	<p>6. Nature Conservation</p> <p>Common scoter is not a feature of the North Norfolk Coast SPA overwintering assemblage according to the SPA citation: http://publications.naturalengland.org.uk/publication/4732349359063040</p> <p>The UK Government has however committed to identifying a network of SPAs in the marine environment by 2016 and although at its early stages, considering impacts to common scoter from the proposed development would represent Best Practice.</p> <p>The value given for The Wash SPA population of common scoter is 3,534 citing WeBs data provided by Natural England in the S42 response. The WeBs data has since been corrected and updated on the BTO website (29/05/2015) and now gives a 5 year average for '09/'10- '13/'14 of 3,496. This should be reflected in the document. Musgrove et al (2013) gives a GB population estimate of 100,000 wintering common scoter, so the resulting % of the GB population is not altered by this correction, remaining at 3.5% of the GB population.</p>	Noted, no further action	NE advised points to note	Closed
176	6.4	The Annex I habitat Shifting dunes along the shoreline with <i>Ammophila arenaria</i> should be followed with the descriptor '(white dunes)' as per the citation:	Noted, no further action	NE advised points to note	Closed
176	6.5	The Annex I habitat Fixed dunes with herbaceous vegetation should be followed with the descriptor '(grey dunes)' and the word 'coastal' should be removed, as per the citation:	Noted, no further action	NE advised points to note	Closed
176	6.6	The Annex I habitat <i>Salicornia</i> should be listed as per The Wash and North Norfolk coast SAC citation: <i>Salicornia</i> and other annuals colonising mud and sand. (<i>Glasswort</i> and other annuals colonising mud and sand)	Noted, no further action	NE advised points to note	Closed
176	6.7	The Annex I habitat Mediterranean and thermo-Atlantic halophilous scrubs should be listed as per The Wash and North Norfolk coast SAC citation: Mediterranean and thermo-Atlantic halophilous scrubs (<i>Sarcocornetea fruticosi</i>)(Mediterranean saltmarsh scrub)	Noted, no further action	NE advised points to note	Closed
176	6.8	The Annex II species Harbour seal should be listed as common seal as per The Wash and North Norfolk coast SAC citation:	Noted, no further action	NE advised points to note	Closed
176	7.1	<p>7. Other Marine Users</p> <p>Page 4 of the document is missing, since section 9.12 ends on page 3 and 9.13 begins on page 7 it does not appear that page 4 contained any information but it would be helpful to clarify that nothing has been omitted.</p>	The applicant confirms that page numbers are incorrect and that there is no information missing.	Lou happy with this.	Closed
176	8.1	<p>8. Marine Physical Environment</p> <p>Sandwave preparation: Considerations within this table contradict those made within the project description chapter (section 1.35- 1.37). It says that sandwaves will be swept to the side (rather than jetting) and that it will lower sandwave crests by up to 3m (rather than 3-4m as in the project description). Natural England seeks clarification regarding these discrepancies.</p>	<p>The case assessed within Volume 2, Chapter 2 Marine Physical Environment of the ES (document reference 6.2.2.2) is that of the maximum adverse scenario, i.e. the greatest impact footprint on the sandwave. In this respect, the use of a plough produces the widest area of disturbance and as such is detailed within Table 2.10.</p> <p>The Applicant acknowledges that there is a discrepancy between the 3-4 m sandwave crest height reduction given in Volume 2, Chapter 1 Offshore Project Description of the ES (document reference 6.2.2.1) and that given in Volume 2, Chapter 2 of the ES (3 m). The Applicant will confirm the parameters used for the assessment with ABPmer, and whether any discrepancy would alter the outcomes of the assessment, and will provide a clarification note.</p>	Lou happy with this.	Open
176	8.2	Total scour protection: Natural England queries whether TKOWL are assuming the whole cable length here?	The Applicant notes that the area/volume of cable protection assumed in the Project Envelope does not allow for cable protection along the entire cable route, but that the assessment has been based on the assessed volume of cable protection being placed anywhere along the route.	<p>Claire Ludgate will seek clarification on comment from Louise Burton</p> <p>Lou happy and referred us to MMO to confirm what they want on DML</p>	Open

176	8.3, 8.4	<p>Sandwave crest level preparation works: It is noted that within this chapter the sand wave crests will be pushed to the side using a plough and a bed levelling plough used to return the spoil berms to the furrow to ensure that the sandwave crest resembles the condition prior to construction. Natural England is supportive of this approach but highlights that this is not reflected in the information provided within the project description at section 1.35 – 1.37 regarding how the sandwave crests will be removed and at section 1.122 the suggestion is for natural backfilling to occur rather than a mechanical plough to return the spoil berms to the furrow.</p> <p>Natural England would not support the approach of natural backfilling as there is the expectation that the seabed should be left in the condition it was prior to construction and as such would prefer that sidecast material was backfilled mechanically rather than left to winnow naturally. Greater impacts from suspended sediment and permanent sediment loss would need to be considered if the material was being stockpiled and then left to naturally winnow and backfill.</p>	The Applicant notes that the intention is not to reform sandwaves once any crest levelling has been done. The return to the pre-construction sand wave profile will be achieved through natural processes, rather than mechanical ones.	<p>Claire Ludgate will confirm if NE doesn't support natural infilling and suggested that this was picked up in a clarification note- it needs to examine the differences in techniques between the standard cable route and the sandwave sections, were pre-lay crest work may be required.</p> <p>Lou advised would prefer a back fill as you go along approach as berm may not be there otherwise.</p>	Open
176	8.5	In addition Natural England requests clarification as to how long the spoil berms will be left on the seabed prior to the mechanical backfilling as it not stated within the environmental assessment. Natural England would welcome further discussion on this point as it is unclear whether the stockpiling of berms has been considered fully in the impact assessment. Whilst at section 2.82 the impacts of suspended sediment concentrations have been dismissed for sandwave crest preparation works as they are considered far less than the worst case scenario of jetting, it is unclear whether this gives consideration to the longer term placement of the berm or whether it is just the initial movement of sediment to a berm that is considered.	The Applicant wishes to clarify that the spoil berms will not be left on the seabed (stockpiled) to winnow or naturally infill any excavated trench, with a bed-levelling plough used to return the seabed to baseline condition once the cable is installed.	Claire Ludgate confirmed this comment was only aimed at sandwave area not whole route.	Open
176	8.6	As stated above, the impact of natural winnowing and permanent loss of sediment to the wider environment during the period of time prior to backfilling should also be considered. There is ultimately the possibility that the level of effect for sandwave preparation works to be increased from minor to moderate and TKOWL should provide further clarification and assurances that such impacts from these techniques have been fully assessed.	[Need clarification note from ABPmer providing more detail	Lou advised that they will provide written clarification back to us, Paul advised that hopefully our clarification will help also.	Open
176	8.7	Release of sediment and lubricant through HDD operations: Natural England queries how the sediment released through the drilling will be stored? In addition, Natural England queries whether a cofferdam will be used?	The Applicant can confirm that the trenchless methods employed for crossing the sand dunes will ensure that any material released will be into a receptor pit and then disposed of as will be agreed within the final site waste management plan.	<p>Claire Ludgate requested that this detail is included in the final waste management plan.</p> <p>Lou advised nothing further</p>	Closed
176	8.8	Storage of sidecast material from trenching at Nearshore and Mid-shore Area: Natural England highlights that there is an onus on TKOWL to return the intertidal area to its condition prior to HDD works and to ensure there are no interruptions to the shoreline management plans of the area.	All agree		Closed
176	8.9	Cable protection: It is also noted that although it is stated that the slopes of cable protection are within the natural variation of the surrounding seabed <20°, it is reported that seabed gradients are generally less 5° although some localised slopes are reported to be up to 25° in the Mid-shore Area and that within the Nearshore Area gradients are typically less than 0.5° reaching up to ~4° across the intertidal (within chapter 6.2.3.2.1 the Physical Processes Technical Baseline Report, under section 5.5.2, page 32 – 33). Given this baseline information the assumption within the Impact Assessment that the gradient of cable protection <20° is within natural variation seems tangible and highlights the importance of minimising the use of cable protection as much as possible, particularly within the Nearshore area.		<p>Claire Ludgate agreed this can be discussed at the appropriate time when setting out cable armouring plans detailed in Condition 79e) of the draft dML</p> <p>Lou advised nothing further</p>	Closed
176	8.10	Introduction of scour due to exposure of export cables as well as the presence of cable protection measures: Natural England notes that scour as a result of cable exposure is considered. Acknowledging that the aim is for cables to be buried and therefore any scour as a result of cable exposure cannot be estimated, Natural England highlights that cables should not remain exposed and that a cable protection plan should be provided at a later date to define further details and ensure that if cables became exposed, steps would be taken to ensure that the cables were once more buried/protected.	Condition 7(e) of the draft dML sets out the requirement to agree a cable armouring plan as part of the pre-construction plans and documentation.	<p>Claire Ludgate agreed this was appropriate.</p> <p>Lou advised nothing further</p>	Closed

Appendix B: RTD email from Louise Burton

Carter, Paul

From: Burton, Louise (NE) [REDACTED]
Sent: 07 July 2014 12:24
To: Sean Leake
Cc: Ludgate, Claire (NE)
Subject: NE official response Triton Knoll - RTD technical note

Hi Sean,

Apologies I thought I had sent this email last Monday and it had just sat in my drafts.

Natural England believes that the Evidence Plan note satisfactorily considers impacts on Outer Thames Estuary SPA, and we agree with its conclusions (i.e. no LSE).

We originally raised RTD as an issue due to potential effects on any *future* Greater Wash SPA for which RTD might be a qualifying feature. This 'site' is currently in the early stages of classification, and has not reached formal consultation and as such is not afforded the protection as a pSPA. It is, however, good practice to consider potential impacts to future proof any consent should the site be classified prior to the installation of the cable.

From the maps in the document, and from what we know of RTD distribution from JNCC analysis for the marine SPA programme, while the ESSA goes through areas occupied by RTD during the winter, importantly it misses the hotspots identified off the Lincolnshire coast, and to the north east of The Wash. Therefore, we are satisfied that significant effects can be ruled out.

We suggest that if at all possible, RWE programmes works to only occur over one wintering period. While not essential, if this could be accommodated, then this would reduce disturbance to a minimum.

I am happy to discuss any queries that you may have

Best Wishes

Lou

Louise Burton
Senior Advisor
Lincolnshire coast, marshes and marine team
East Midlands Area Team
Natural England
Ceres House, 2 Searby Road
Lincoln, LN2 4DT
Tel: [REDACTED] Mob. [REDACTED]
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We are here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

In an effort to reduce Natural England's carbon footprint, I will, wherever possible, avoid travelling to meetings and attend via audio, video or web conferencing.

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From: Sean Leake [REDACTED]
Sent: 07 July 2014 10:35

To: Burton, Louise (NE)
Subject: Triton Knoll

Hi Lou, hope you had a good weekend.

Just wondering how progress is going on the red throated diver clarification note? I've got a project update shortly and I'd like to be able to give a Review Panel update too.

Kind regards
Sean

Sean Leake
Senior Marine Consultant

Tel: [REDACTED]

Mob: [REDACTED] Fax: [REDACTED]

E-mail: [REDACTED]

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Appendix C: Future Creation of Lincolnshire Coastal Grazing Marsh following Cable Installation

Future Creation of Lincolnshire Coastal Grazing Marsh following Cable Installation

- 1.1 The target areas for the Lincolnshire Coastal Grazing Marsh (LCGM) project cover three broad categories of land, these being:
 1. Existing pasture (including permanent pastures, wet pastures and grasslands showing historic farming systems such as ridge and furrow);
 2. Land previously used for intensive agricultural production that has been the subject of capital works (e.g. scrape creation, drainage alteration etc.) to create grazing marsh habitats; and
 3. Arable land considered to have the potential for conversion in to grazing marsh habitat should landowner agreement and funding become available.
- 1.2 The cable route for the Triton Knoll Electrical System crosses each of these categories as it progresses through the Anderby / Huttoft and the Burgh Le Marsh target areas for the LCGM project. For activities within areas currently comprising grassland habitat specific mitigation measures are provided in the Outline Construction Method Statement (Document Reference 8.7.1). However further refinement of these activities is currently being discussed with the Lincolnshire Wildlife Trust (a key member of the LCGM project) to ensure maximum efficacy with regard to ameliorating potential impacts on target areas and existing sites, including the reinstatement of grazing marsh habitat and efficiency with regard to the construction process.
- 1.3 It is noted that Natural England has confirmed that the Lincolnshire Coastal Grazing Marsh project is targeted to receive Countryside Stewardship support in the future and that existing Higher Level Stewardship agreement holders will be targeted by Natural England directly to renew into the new Countryside Stewardship scheme (which replaces the current scheme). However, it is agreed that there are no new areas within the LCGM Target Area intersected by the Order Limits, which are currently anticipated to be included within the existing Higher Level Stewardship Agreements or the new Countryside Stewardship scheme.
- 1.4 Through discussions between the Applicant and Natural England it was agreed that further clarification was required with regard to the potential for grazing marsh habitats to be created on arable fields within target areas should future funding and landowner agreement be secured. Of particular importance is the need to clarify whether the presence of the electrical cable ducts, cables and joint bays would prevent the raising of the water table within fields or the creation of scrapes / ditches in the target area crossed by the cable route.

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- 1.5 Information is provided below to demonstrate that the construction, operation and decommissioning of the electrical transmission system required to connect the Triton Knoll Offshore Wind Farm to the national grid would not prevent grazing marsh creation plans in fields within the LCGM project target areas.
- 1.6 The creation of grazing marsh habitats from arable fields in the target areas follow a general process that relies on the completion of two major elements:
1. The change in drainage patterns through the removal or blockage of existing field drains and the control of water levels within surrounding ditches (e.g. by the construction of weirs); and
 2. The digging of shallow scrapes and/or blind ended ditches to help retain surface water and provide a range of feeding and breeding habitats for birds typical of grazing marsh (principally waders such as lapwing and snipe).
- 1.7 Within the Outline Construction Method Statement (Document Reference 8.7.1) there is a suggestion that in these areas the depth of the cable could be increased by 0.5m for a length of 6 – 10m every 25 – 40m, up to a maximum of 1km. This was incorporated following pre-application discussions with the Lincolnshire Wildlife Trust as it would enable scrapes / ditches to be dug above the cables. Following submission of the application, this potential mitigation has been reviewed and identified by the Applicant as being problematic as it introduces risks to the installation process by adding friction to cable pulling operations, the operational integrity of the cable and the health and safety of third parties by enabling excavation to take place in areas where this would usually be prohibited via a wayleave agreement. As the margins are small (e.g. 0.5m) the potential for excavating below one plough depth (the typically allowed depth for management above an underground cable) cannot be countenanced because of the risks to both installation and operational safety highlighted above. However, excluding areas above the cables from introducing scrapes/ditches does not alter the potential for any of the fields crossed by the TKES cables being made into grazing marsh habitats for the following reasons:
1. The area within the working width within each field crossed is generally small relative to field size, thereby allowing scrapes and ditches to be created in the majority of the fields;
 2. Grazing marsh should comprise a range of opportunities to target fauna such as wading birds including areas of both wet and drier grassland suitable for foraging, roosting and nesting;
 3. Areas of each field (usually the majority of that available) will require to be left without scrapes or ditches to enable access for management and provide the range of habitats necessary for both wading birds and grazing livestock;
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4. The majority of grazing marsh habitat in the UK does not comprise of a series of scrapes or ditches as the areas are typically still used for large-scale livestock production. These areas are generally open grass fields bounded by drainage ditches supporting a variety of wetland vegetation.
- 1.8 It is therefore the view of the Applicant that the installation of cable ducts, cables and joint bays do not inhibit grazing marsh creation within target areas currently used for intensive arable farming should the funding and landowner agreements be secured in the future.