



THE PLANNING ACT 2008
THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE)
RULES 2010

HORNSEA PROJECT THREE OFFSHORE WIND FARM

Planning Inspectorate Reference: EN10080

**Annex D6: NE and JNCC detailed comments on Vol. 5 Annex 2.3 - MCZ
Assessment**

7 November 2018

1. Cromer Shoal Chalk Beds MCZ

- 1.1. Natural England has undertaken a review of protected chalk in English waters and has noted the following

As chalk habitats are scarce, their conservation is critical. Only 0.6% of the British coastline is formed of chalk, however this is a majority (c.57%) of the total European coastal chalk resource (JNCC 2011; Tittley 2009). This gives England an internationally significant responsibility to ensure the conservation of its marine chalk habitats.

- 1.2. The advice that Natural England provided in its Relevant Representation remain unchanged and these have been expanded on in the detailed comments. In summary **Natural England questions the conclusions of the MCZ assessment for the Cromer Shoal Chalk Beds and believes there is sufficient uncertainty in relation to the impacts to the features and coastal processes, and recoverability of the features, to have limited confidence in the Stage 1 conclusion that there will be no significant risk of Hornsea Project Three hindering the achievement of the conservation objectives for the site.**
- 1.3. Natural England believes that a stage two assessment is therefore required to ensure that impacts are fully considered and that Measures of Equivalent Environmental Benefit (MEEB) are identified where applicable.
- 1.4. If MEEB is not considered at the time of application and the preconstruction surveys subsequently identify that the conservation objectives for the site are hindered, then there would be significant delays to the project whilst MEEB is agreed and delivered. It would unlikely at that stage that a full range of mitigation option could be considered as the project design would be fixed.
- 1.5. As this is not a European designated site we would also expect that retrospective MEEB is applied if the impacts are greater than those predicted pre-construction. We believe that each of these scenarios is highly probable and would need to be informed by a robust monitoring programme.

2. Marham's Triangle pMCZ

- 2.1. Since this application was submitted, Markham's Triangle has been included in the consultation for Tranche 3 of the Marine Conservation Zone designation process. However, we do not expect that to impact the assessment methods needed for this application as the applicant already includes it as a material consideration.
- 2.2. However, if by the time of pre-construction, Markham's Triangle is designated as an MCZ, a further level of characterisation concerning sand wave levelling may need to be undertaken and submitted to the MMO, along with a reassessment of impact.
- 2.3. We note that the consultation document confirms that all four features (Subtidal coarse sediment, subtidal sand, subtidal mud, subtidal mixed sediments) are considered to be in unfavourable condition and have restore objectives. As agreed through the EWG, subtidal mud need not be assessed by the applicant considering that there is no expected spatial overlap between plans and the feature. The applicant has used Conservation Objectives for the Cromer Shoal Chalk Beds MCZ as a proxy for Markham's Triangle and noted that a recover management approach should be applied.

Conservation objectives

- 2.4. There are several occasions in the application where the concept of conservation objectives has been fundamentally misinterpreted, for example:

“the main reason for the "recover to favourable condition" conservation objective for this rMCZ is due to seabed disturbance from benthic trawling ... effects related to colonisation of hard substrates ... are fundamentally different pressure to that associated with benthic trawling and as such, there is no clear pathway whereby colonisation of hard substrates could affect the recovery of proposed features to a favourable condition”.

- 2.5. We note from the recent Defra T3 note on Markham’s Triangle that restrictions related to activities will be decided based on the specifics of each case and any restrictions will depend on the sensitivity of the species, habitats or geological/geomorphological features to be protected to the activity taking place. Furthermore, the note only states that cables and renewables are not likely to be damaging the features to be protected at *current levels* of intensity. Clearly operations around Hornsea 3 will go beyond this level and thus may impact protected features.
- 2.6. As with the assessment of other protected sites, we consider it extremely difficult to assess total impact of the proposed operations when impact is only discussed stage by stage. It is not clear if areas of impact are carried over between stages, or whether any particular impact is temporary or permanent. We strongly suggest that these assessment sections are rewritten to provide a narrative of full and total impact through the lifetime of the project.

Scour / cable protection

- 2.7. We note that cable and scour protection within Markham's Triangle will be designed to consider the local baseline conditions. Any rock protection used in this area may be limited to an average grain size of 100 mm to a maximum grain size of 250 mm. We question how likely this mitigation is to be practicable, and whether the likelihood will vary among features – could use of <250mm sediment not provide enough stabilisation in mixed sediments?
- 2.8. There is also discussion of shell debris resulting from settlement on turbine foundations providing a secondary substrate for the attachment of other epifaunal species (Norling and Kautsky, 2007), leading to coarser, shell-dominated sediment and enriched structure diversity. We would expect the applicant to consider the implications for this change in habitat type within their assessment of impact on conservation objectives

3. Detailed comments

Point	Chapter section	Comment
3.1.	3.3	Based on evidence from other OWF in relation to cable installation through similar interest features Natural England challenges the assumptions that the required movement of sediment and excavation would result in temporary habitat loss/disturbance and long term habitat loss over the lifetime of the protect. Without removal of cable protection at decommissioning the impacts are likely to persist and, depending on the location, may hinder the conservation objectives of the designated sites. Currently there is no guarantee of removal. The documents provided for the current Race Bank marine licence application includes two options for rock armouring removal that involve dredging up the material. The document provided was purely a method statement and did not take

		<p>into consideration the feasibility and confidence in being able to decommission in similar environments, including the associated impacts. For example the two options presented involve dredging to no lower than 30cm below seabed, and in undertaking this activity there would almost certainly be disturbance to, or removal of, the interest features of the site. Where there is cobble/stony reef present, or <i>Sabellaria</i> reef, there would be habitat loss.</p> <p>We suggest that there needs to be some evidence presented where rock armouring has been decommissioned, in similar sediment types, and monitoring provided of the associated impacts. To date all the evidence presented to NE from OWF developers is that rock armouring cannot currently be feasibly removed. A good example of this issue is within Thanet OWF, where a section of cable under rock armouring needed to be replaced. It was determined that removing that hard substrate to access the cable wasn't feasible, so a new cable section was spliced in around the existing cable leaving the original section with protection in situ. See Natural England's Cable Protection paper (2018).</p>
3.2.	4.2.1.2	<p>As discussed during the evidence plan process Natural England has limited confidence in use of the Dudgeon and Sheringham Shoal pre construction data for within the MCZ. Therefore we advise against the over reliance on these data sets. The reasons for this are:</p> <ul style="list-style-type: none"> • Applications were submitted pre MCZ so didn't take into account the features • The age of the Characterisation data for these projects are 10+ years old; • the pre-construction data for Dudgeon only focused on specific area of habitat of ecological importance • the pre-construction data set for Sheringham shoal was taken after a storm and therefore no conclusions could be drawn from them.
3.3.	4.2.1.4 and 4.2.1.5	<p>Natural England reiterates the higher level conservation objectives for the site to maintain the interest feature in as yet to be determined favourable condition.. We disagree with the applicants conclusions as we question if the proposal will achieve the conservation objectives of the site in order to maintain favourable condition.</p>
3.4.	4.2.1.11, 4.2.1.12, 4.2.1.13 and Figure 4.3	<p>The geophysical data in relation to subcropping rock indicates that there is only a thin veneer of sand and that any cable installation works in this area would be challenging and almost certainly cable protection would be required. The Drop Down Video (DDV) also indicated that there was an increase in gravel, cobbles, and occasional boulders in these areas (not dissimilar to that of the Wash and North Norfolk Coast DDV Survey 2018). Therefore Natural England believe that there is a higher likelihood of requiring cable protection, and ground preparation works and that there is a lesser likelihood of recoverability.</p>
3.5.	4.2.1.14	<p>Circalittoral Rock is still important and rare. Natural England has undertaken a review of protected Chalk in English waters and found it not only be rare but also to be different in each location.</p>

3.6.	Table 5.1	Natural England is surprised by the outcome of the matrices as having either no pathway or no significant effect especially, for example, 'extent and distribution' and 'sediment composition' of mixed sediment. We have had insufficient time to undertake our own assessment, but would be happy to advise BEIS directly on the stage 1 assessment. The question here is whether only sand will be impacted. If subcropping rock is removed by the creation of the exit pits it may have impacts on reinstatement and hinder the conservation objectives for the site due to changes in sediment budgets.
3.7.	Table 5.2 and 5.1.2.8	There is no mention of the creation of 8 cofferdams and potential need for protection because trenching is considered the worst-case scenario as the impacts occur over a much larger area. However, it should be recognised that although the scale of the impact would be restricted to a much smaller area in the 8 cofferdam scenario, the impact on that smaller area could be of a significantly greater magnitude. Equally the impacts associated with the jack up barges are considered in the context of sandy habitats where there is a rapid recovery if a less resilient feature were to be subjected to the same pressure.
3.8.	5.1.2.12	Natural England agree that the presence of cofferdams would affect sediment transport to the North Norfolk Coast that is dependent on sediments from the offshore sandbanks.
3.9.	5.1.2.13 and 5.1.2.16	It is not clear if all the exit pits will be dug simultaneously or sequentially. If sequentially then there will be impacts for between 4 and 16 months. At 5.1.2.16 it says two cofferdam could be in place at the same time with an expectation that the other two would follow immediately after. This would mean 8 months of impacts which is a concern if it impacts on natural coastal deposition and exacerbates the effects of storm events. Also it is not clear if the 4 months include cable pull through. Phrases such as 'largely unaffected' 'limited blockage' have been used but these have not been qualified in the assessment.
3.10.	5.1.2.14	Natural England advises that the exit pits avoid the intertidal area as there is Chalk present that, although outside the boundary of the designated site, still qualifies for designation and is considered of local importance.
3.11.	5.1.2.17 and 5.1.2.24	The advice that Natural England provided in its Relevant Representation remain unchanged and these have been expanded on in the detailed comments. In summary Natural England questions the conclusions of the MCZ assessment for the Cromer Shoal Chalk Beds and believes there is sufficient uncertainty in relation to the impacts to the features and coastal processes, and recoverability of the features, to have limited confidence in the Stage 1 conclusion that there will be no significant risk of Hornsea Project Three hindering the achievement of the conservation objectives for the site. Natural England believes that a stage two assessment is therefore required to ensure that impacts are fully considered and that

		<p>Measures of Equivalent Environmental Benefit (MEEB) are identified where applicable.</p> <p>If MEEB is not considered at the time of application and the preconstruction surveys subsequently identify that the conservation objectives for the site are hindered, then there would be significant delays to the project whilst MEEB is agreed and delivered. It would be unlikely at that stage that a full range of mitigation options could be considered as the project design would be fixed.</p> <p>As this is not a European designated site we would also expect that retrospective MEEB is applied if the impacts are greater than those predicted pre-construction. We believe that each of these scenarios is highly probable and would need to be informed by a robust monitoring programme.</p>
3.12.	5.1.3.12	<p>It is not clear from the MCZ assessment if cable protection for suboptimal buried cables (including around exit pits/jointing bays) is part of the construction or operational phase. This is raised in Natural England comments on other sections. Based on what is currently occurring at the Race Bank project, the protection of sub-optimally buried cables is the responsibility of the construction team in Ørsted. Therefore on that basis, Natural England believes that cable protection is part of the construction phase and the O&M activities are for subsequent repairs of previously laid protection. With the potential for 10% of the cable with the MCZ to have cable protection, Natural England is concerned that this will hinder the conservation objectives of the site. Equally there has been no cable burial risk assessment that considers the significant reduction in water depth in places in the nearshore water and what this may do to coastal processes.</p>
3.13.	5.1.3.13	<p>Natural England agrees that repairs and reburial will only have temporary impacts. However, we do not agree that the placement of cable protection is only a temporary impact. The rock will continue to persist over the lifetime of the project and unless removed at decommissioning the impacts will continue beyond the lifetime of the project. Please see Natural England's comments on the cable protection clarification note and HRA assessment as the advice contained therein is also relevant here. Especially as based on the evidence provided by the Race Bank OWF project we do not believe that decommissioning will be possible. And if, as proposed by Race Bank, dredging is used then there is a high probability that the interest feature of the site will also be removed.</p>
3.14.	5.1.3.16- 5.1.3.21	<p>Whilst it is true that hard substrate used to be naturally more prevalent in the North Sea, this is not the recent or current situation and is not a justification that anthropogenic introduction of hard substrate, and any associated changes to the fauna, are acceptable. Consideration should be given to the interest features of that particular area.</p>
3.15.	5.1.3.18	<p>Please see comments on the cable protection clarification note. Based on the recent evidence from the Race Bank OWF, Natural England does not believe that 'sensitive' cable protection will be possible at this location.</p>

3.16.	5.1.2.22 – 5.1.3.29	Natural England would expect that there would be a pre-construction requirement to provide a detail plan to avoid the spread of Invasive Non Natives.
3.17.	5.1.4.2	Natural England agrees that, depending on the interest feature, decommissioning the cables is unlikely to pose a significant risk to the interest features of the site. But as discussed previously the decommissioning of any protection could impact site integrity. Therefore there would need to be an updated assessment at that time.
3.18.	5.1.4.4 - 5.1.4.8	As set out previously Natural England has concerns about the persistent nature of cable protection with the designated site. We also do not believe that 'sensitive' cable protection that is representative of local particle size will be feasible at this location.
3.19.	5.1.5	Please note that there are cumulative impacts occurring with pipeline protection works for the Bacton terminal that will need to be considered in-combination. Natural England did not support the introduction of cable protection for those proposals.
3.20.	5.1.6 and 6	Natural England questions the conclusions for the above reasons. We believe that there is sufficient uncertainty in relation to the impacts to the features and coastal processes, and recoverability of the features to have limited confidence in the Stage 1 conclusion that there will be no significant risk of Hornsea Project Three hindering the achievement of the conservation objectives for the Cromer Shoal Chalk Beds MCZ.