



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

HORNSEA PROJECT THREE OFFSHORE WIND FARM

**Annex H: Natural England's Response to Relevant
Representations submitted by other parties**

7 November 2018

Hornsea Project Three Offshore Wind Farm – Response to Relevant Representations

Following submission of Natural England’s and other consultees Relevant Representations regarding the construction and operation of Hornsea Project Three Offshore Wind Farm, Natural England has reviewed other consultees Relevant Representations, including statutory and non-statutory consultees, and commented on the major issues within the remit of Natural England. Relevant comments from other consultees are summarised in Table 1, together with Natural England’s position on the comments.

Table 1: Summary of main comments from other consultees and Natural England’s position.

Topic	Summary of main comments from other consultees	Natural England Position
The Marine Management Organization (MMO)		
General Comments	<ul style="list-style-type: none"> • Insufficiency of data to enable a thorough assessment of impacts on the marine environment, particularly the lack of benthic data for the inshore cable route and the lack of 2 years of ornithological monitoring. • Inappropriate use of the Rochdale Envelope approach, with no clear realistic worst case scenario established due to many uncertainties and inconsistencies in the project description through the different chapters of the application. The MMO also raised concerns that the assessment of significance of impacts was not always using the maximum potential adverse effect. • Insufficient engagement during the pre-application stage. A number of major issues have been raised at the pre-application stage but these have not been fully addressed and many major concerns still remain outstanding. 	In agreement with Natural England’s own comments.
Development Consent Order (DCO) and Deemed Marine Licences (DMLs)	<ul style="list-style-type: none"> • There was no opportunity to review and comment on the proposed DCO and the DMLs before the formal application to PINS. • Regarding arbitration, both the MMO and Natural England do not agree to be bound by a third party decision. The MMO questions the legality of handing a regulators decision to a third party. • Offshore preparation works should be included in the interpretation of ‘commence’. Exclusion of these works would allow the developer to undertake sandwave levelling, boulder relocation and other activities prior to the agreement of any required mitigation, sufficient consideration and consultation upon construction methods and monitoring plans and prior to the requirement to perform any necessary pre-construction monitoring surveys. • The condition requiring all post-consent documentation to be signed off within 8 weeks is very restrictive. The MMO recommends a minimum period of 6 months. • Figures for maximum sandwave levelling and boulder clearance should be included in the DCO/DMLs to ensure that the limits defined in the ES are adhered to 	In agreement with Natural England’s own comments.

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	<ul style="list-style-type: none"> • The design plan should be approved by the MMO post-consent to allow for consideration as to whether the final project plan sits within the consented envelope • The lack of micro-siting and monitoring requirements outside of European designated sites is not appropriate • Pre-construction monitoring requirements are linked to the standard pre-construction timing requirement of 4 months before commencement. Pre-construction monitoring should be conducted well in advance of this date. • The requirement for pre-construction documentation and plans to be submitted for approval 4 months prior to the commencement of any licenced activity is inappropriate. Both the MMO and Natural England suggest a timeframe of 6 months • Inconsistencies across the application on the number of substations, volumes of cable protection, scour, disposal etc. • No Splitting DMLs • The inclusion of a condition to restrict the maximum hammer energy as per the Worst Case Scenario (WCS) assessed in the Environmental Statement • The inclusion of a Site integrity plan • The inclusion of benthic monitoring pre and post construction. The MMO suggest for up to 3 years post-construction. • During construction noise monitoring condition to be the standard one (with reporting after 6 weeks) • The inclusion of a condition to update the Marine Noise Registry. 	
Environmental Statement (ES) - Marine Processes	<ul style="list-style-type: none"> • The MMO considered the impact assessment to have been done at a generic level across the whole development area with no detailed assessment for instance of specific areas, such as the sandy muds of Markham Hole, which contrast with the dominant sediment types of the overall area. • No provision of an indicative layout worst case scenario which needs to be provided before construction as a pre-construction sign off document. 	In agreement with Natural England's own comments.
ES - Marine Processes	The MMO considered that significant impacts on marine processes have been identified and required mitigation included, although further clarifications were required for some of the assessments.	Natural England still has concerns regarding impact assessments of sandwave clearance, cable and scour protection and the reduction in magnitude of the wave height, considering these impacts have not been appropriately assessed, particularly when these affect protected areas.

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ES – Benthic Ecology	<ul style="list-style-type: none"> • Lack of data on the revised cable route, specifically within the Wash and North Norfolk Coast Special Area Conservation (SAC). Requested detailed pre-construction surveys to support that conclusion. • The MMO raised concerns regarding the impact of sandwave levelling, particularly within the North Norfolk Sandbanks and Saturn Reef SAC including the impact of disposal on top of reef habitats. Notes that sandwaves may not form where they are levelled 	In agreement with Natural England's own comments.
ES – Benthic Ecology	<ul style="list-style-type: none"> • Lack of consideration of the impacts of repainting the turbines every 10 years during Operations and Maintenance (O&M) phase. • The MMO challenges the lack of benthic ecology monitoring, recommending benthic and suspended sediment monitoring both along export cable and within the array area. • The MMO challenges the applicant's assessment of reefiness at ECR04 as low reef. The MMO considers it to be Annex I reef, especially since it is located within an SAC. Notes this has consequences for the assessments which were based on no Annex I habitat been present and therefore no mitigation proposed. The MMO also recommends no sandwave clearance in areas of <i>Sabellaria</i> reef. • The MMO considers that temporary loss of 30% of Habitat E (<i>Sabellaria spinulosa</i>) is considered a greater magnitude impact than minor. (Benthic ES chapter para 2.11.1.20). • The MMO considers that assessing overall sensitivity of habitats A-E combined to give an overall significance is inappropriate as different habitats react differently to different impacts. Particularly relevant for Habitat E, <i>S. spinulosa</i> 	Not mentioned in Natural England's comments specifically but Natural England agrees with the comments raised. Natural England will be providing more detailed comments on benthic ecology in the Written Representations.
ES – Fish and Shellfish Ecology	MMO suggest the use of bubble curtains to mitigate noise impacts to fish species, spawning and migratory species.	Natural England did not request bubble curtains for fish impacts, but did recommend their consideration for impacts to Marine Mammals.
ES – Fish and Shellfish Ecology	<ul style="list-style-type: none"> • The MMO queries if concurrent piling has been considered in the modelling. If not then concurrent piling should not be allowed unless further evidence is provided. • The MMO notes concerns regarding impacts to sand eel, particularly during winter month and suggests consideration is given to avoiding construction activities during the sand eel spawning season where feasible. 	Not mentioned in Natural England's comments specifically but Natural England agrees with the comments raised.
ES – Underwater Noise	MMO considers that the assessment of Permanent Threshold Shift from UXO detonations as negligible to low magnitude of impact is incorrect. They believe the magnitude of impact should be medium.	Not mentioned specifically in Natural England's comments specifically, but referring to the Project's own definition of 'medium

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		magnitude' disturbance WCS identified in the RIAA could fall within this definition.
ES – Underwater Noise	MMO considers that the assessment of significance of effect (assuming of UXO detonation on Marine Mammals following from previous sentence) should be reconsidered. Sensitivity is considered medium to high, therefore significance of the effect should be moderate to major, which would be significant in EIA terms	Natural England also questioned the magnitude and overall significance of impact of UXO detonations on marine mammals.
ES – Underwater Noise	<ul style="list-style-type: none"> • The MMO requests the consideration of noise reducing technologies, such as bubble curtains and acoustic barriers to mitigate the risk of acoustic impact on marine species. • Considering permanent threshold shift (PTS) for some species of up to 1.5km, the MMO recommends appropriate mitigation be employed to cover such distances. 	In agreement with Natural England's own comments.
In Principle Monitoring Plan	<ul style="list-style-type: none"> • The MMO suggests a bathymetry monitoring condition for the less than 20m depth contour to be included, similar to Hornsea Project Two, as the degree of cable protection required in the sub-tidal area has not yet been identified • Whilst the MMO recognises that broad scale monitoring is not appropriate, targeted monitoring should be undertaken (pre- and post-construction) to monitor the secondary impacts within the Array area, outside the array area and at suitable reference sites. • In addition to the monitoring currently proposed by the applicant to determine the success of sensitive cable protection measures in the affected SACs/MCZ, the MMO recommends further monitoring to determine the impacts of sand wave clearance and boulder clearance on the integrity of the features present within those areas. 	Not mentioned in Natural England's comments specifically but Natural England agrees with the points raised.
The Environment Agency (EA)		
ES (Addendum): Land at Booton	The EA requests amendment to PINS Document Reference: A6.7 (Environmental Statement (Addendum): Volume 7 - Land at Booton) to include a section on whether or not the works may change groundwater flow to the SSSI/SAC.	In agreement with Natural England's own comments.
ES – Hydrological Characterisation Report	The EA raises concerns on the potential for impacts on Booton Common during HDD for the Blackwater Drain, and within the SPZ1 in the Yare catchment and requests for both to be fully investigated within the forthcoming hydrogeological risk assessments.	In agreement with Natural England's own comments.
Water Framework Directive (WFD) Groundwater Assessment	The EA query the quantitative groundwater tests and requests further clarifications. The EA also suggests the quantitative and quality test results to be discussed separately.	In agreement with Natural England's own comments.

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DCO and DMLs	The EA requires to be consulted on the detailed Code of Construction Practice (CoCP) for their approval as well as on site specific Pollution Control Plans	Not mentioned in Natural England's comments specifically but Natural England agrees with the comment raised.
Ecology and Nature Conservation	<ul style="list-style-type: none"> • The EA encourages the applicant to consider other locations for ecological enhancements and other opportunities for planting pollinator corridors over freshly excavated ground, and restoration of standing water bodies such as ponds and lakes which fall within the cable corridor impact zone. • The EA encourages the applicant to consider what WFD mitigation measures could be put in place to help the affected waterbodies achieve 'Good' status. 	Not mentioned in Natural England's comments specifically but Natural England agrees with the comment raised.
Post PEIR Changes to Hornsea Project Three	The EA queries which measures will be taken to manage any contamination encountered and/or prevent any contamination occurring from crossing the abandoned MOD pipeline.	Not mentioned in Natural England's comments specifically but Natural England agrees with the comment raised.
Environmental Permits	The EA remarks it is generally opposed to culverting, with each application assessed on its own merit and only approving if there is no reasonably practicable alternative, or the minor detrimental effects do not justify more expensive alternatives. However, should it be needed, the proposal must include appropriate assessment of flood risk and environmental impact.	Not mentioned in Natural England's comments specifically but Natural England agrees with the comment raised.
DCO and DMLs	The EA requests a new condition to be added requiring that the EA pre-approves methodologies, this is to protect wetland habitats as proposed in the Ecological Management Plan (EMP).	Natural England supports the inclusion of such a condition and would like to be consulted by the EA on the proposed EMP.
Ecology and Nature Conservation	The EA would like to work with the applicant to undertake river enhancements, including River Wensum restoration (ongoing project to restore Wensum SSSI/SAC, with river restoration between Attlebridge and Morton farm CWS) and River Yare flood management project being delivered at Marlingford.	Natural England has been providing continuous advice on the EA river enhancement projects. Natural England supports such a proposal and would like to be consulted by the EA on any restoration project proposals.
ES - Onshore ecology	The EA note they have no concerns regarding flood risk from the proposal.	Natural England does not have concerns about 'flooding' in relation to loss of property/assets (not our remit). However, we have outstanding concerns about the adequacy of the assessment of ecological impacts. A single flood event (i.e. high rainfall event) could overwhelm protection measures and deposit large amounts of sediment into

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		watercourses, therefore we would like to see reassurance that run-off control measures will be designed to cope with this type of event as a minimum.
Marine Processes and Landfall	The EA is content that the documents submitted (regarding Marine Processes and Landfall) adequately address issues within its remit.	The EA remit extends out to 1km, thus this includes areas of the new cable route where both Natural England and the MMO have expressed concern.
Eastern Inshore Fisheries and Conservation Authority (EIFCA)		
General Comment	Whilst EIFCA supports moving the cable route away from the sensitive chalk features in the MCZ, the EIFCA is not happy with the new cable route proposed, since it significantly increases the footprint of the corridor and thus the impacts of works on the fishing industry, local and commercially important species and the habitats that they utilise. EIFCA questions why an alternative route that goes from Weybourne and crosses the north west corner of the MCZ has not been proposed.	This does not conflict with Natural England's advice, however for an alternative route to be considered the applicant would need to follow the statutory consultation process.
ES – Benthic Ecology	<ul style="list-style-type: none"> • EIFCA noted that to accurately assess seabed disturbance resulting from cable installation and rock armouring cable protection, a better understanding of the habitats in the cable corridor is needed and further habitat surveys should be undertaken. • The EIFCA raised concerns over the accuracy and realism of the predictions of rock armouring for cable protection. Noted the issues that occurred at Race Bank cable installation leading to an increase on cable protection post-consent considerably beyond initial predictions. 	In agreement with Natural England's own comments.
ES – Cumulative assessment	EIFCA requested a wider assessment of cumulative and in combination impacts of the offshore wind farm on fish and shellfish, including Electromagnetic Field (EMF) effects.	Not mentioned in Natural England's comments as it falls beyond the scope of our statutory remit, however it is our view that EMF effects should be adequately assessed throughout the application. We would defer to the EA/Cefas for their expert opinion.
Historic England		
ES - Landscape and Visual Impact Assessment (LVIA)	Historic England raised concerns regarding the visual impact of the onshore works on several heritage assets, including Gowthorpe Manor House and Barn, Mangreen Hall, Keswick Hall and local conservation areas. Historic England advised they will expand on these issues within their Written Representations	Natural England raised concerns regarding potential visual impacts in our Relevant Representations. However, providing advice on

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		heritage assets is outside of our remit.
Whale and Dolphin Conservation (WDC)		
ES – Underwater Noise	The WDC has concerns that the windfarm construction will impact cetaceans, in particular harbour porpoises qualifying feature of the Southern North Sea cSAC.	Natural England noted WDC expressed concerns regarding impacts on cetaceans. Natural England has outlined the main concerns in our Relevant Representations.
Norfolk Wildlife Trust (NWT)		
General Comments	The NWT expressed a preference for the use of direct current (DC) as opposed to alternating current (AC) due to the lesser habitat disturbance from using DC.	Natural England has commented on the ES WCS and as such has not commented on the choice of transmission system. However Natural England would be interested in supporting options that could reduce the WCS.
	The NWT raised concerns regarding the impact on great-crested newts (GCN) particularly in the Bodham and Heydon areas. The NWT notes that evidence has been provided to Ørsted on the presence of GCN within ponds not visited or that have been assessed as unsuitable by the project ecologists. The NWT also noted that non-priority linking ponds should be considered important for movement where meta-populations are divided by the cable route and that mitigation should be at an appropriate level.	Natural England notes that the applicant has not yet approached us regarding the draft protected species licences for terrestrial species.
The Wildlife Trusts (TWT)		
ES – Underwater Noise	<ul style="list-style-type: none"> • TWT does not agree with the current proposal on underwater noise management, considering it to be difficult to deliver, that it does not encourage noise reduction and that the science underpinning the approach is weak. • TWT states that underwater noise should be managed at a regional seas level using noise limits applicable to all construction activities associated with offshore wind farm development, similarly to the approach used in Germany, the Netherlands and Belgium. • TWT notes that underwater noise mitigation should be conditioned as part of planning consents. • Detailed monitoring of noise levels and harbour porpoise population activity should be undertaken at a strategic level to verify predictions made in planning applications and to provide information for the growth of the offshore wind sector 	Natural England is concerned noise mitigation at point source is not being considered by the applicant. Natural England would like to be consulted on the Marine Mammal Mitigation Protocol (MMMP) pre-construction, to ensure adequate mitigation is in place.
	TWT request that fishing must be included as an in combination impact, that it cannot be considered part of the baseline.	Natural England have responded to this point within our answer to Q1.2.108 of the Examiners'

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	TWT notes that strategic mitigation and monitoring should be implemented through a conditioned levy payment which would also establish and support a Southern North Sea underwater noise management steering group	Natural England supports this idea in principle and will work with stakeholders to find the best approach to mitigation and monitoring post-consent.
	TWT notes that the science supporting the impact assessment on ocean quahog is weak, with the cumulative impact assessment not considering fishing, one of the main threats to this species. TWT recommends this to be taken in account in a more detailed assessment.	Natural England notes this comment but have no further response to make.
The Royal Society for the Protection of Birds (RSPB)		
ES - Offshore Ornithology	<ul style="list-style-type: none"> The RSPB does not agree with breeding guillemot and razorbill being screened out from the assessment. The RSPB does not agree that herring gull should be screened out of the Environmental Impact Assessment 	Natural England has outstanding concerns regarding these species and we will be providing more detail in our Written Representations.
	The RSPB notes that the Population Viability Analysis (PVA) model used to evaluate impacts on gannet and kittiwake populations of the pSPA (and SPA in the case of kittiwake) has only been run over 25 years, whereas Ørsted is seeking approval for 35 years. With the model updated accordingly, predicted impacts will be greater.	In agreement with Natural England's own comments, and we will be providing further detail in our Written representations.
The Wash and North Norfolk Marine Partnership (WNNMP)		
General Comment	The WNNMP queries the reasons for the change on the cable route corridor nearshore, which significantly increases the footprint of the offshore cable corridor, recommending that the cable route is changed in favour of a route that passes through the NW corner of the MCZ. However the WNNMP recognised that the cable corridor avoids the chalk reef feature within the MCZ, which is supported.	This does not conflict with Natural England's advice, however for an alternative route to be considered the applicant would need to follow the statutory consultation process.
Norwich City Council		
ES - LVIA	The Norwich City Council raised concerns on the visual impact from the proposed development on the natural landscapes of the Yare River valley, that it can be more significant than the negligible impact identified in the ES.	Natural England raised concerns regarding potential visual impacts in our Relevant Representations. However, we are only advising on the impacts on Areas of Outstanding Natural Beauty (AONBs) in line with our statutory remit.
Broadland District Council (BDC)		
ES - Onshore ecology	<ul style="list-style-type: none"> The BDC raised concerns that the construction traffic will have a negative impact on Oulton Conservation Area. The BDC also noted that consideration should 	Natural England supports these comments.

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	<p>be given to the dismissal of a planning appeal in 2014 for an anaerobic digester plant on the former airfield on grounds that would result in material harm to highway convenience and noise and disturbance impacts.</p> <ul style="list-style-type: none"> • The BDC notes that two areas of woodland designated as Ancient are within 500m of the cable corridor (Jennis Wood and Harman's Grove), with both being County Wildlife Sites and should be protected. • The BDC also notes that the installation of the cable route will require the removal of sections of hedgerow. If sections are removed and cannot be replaced following installation of the cables some form of mitigation would be appropriate. 	
	<p>The BDC notes that cumulative impacts of Hornsea project 3 and the Norfolk Vanguard cable corridors and associated development within the District needs to be considered. Norfolk Vanguard are proposing two compounds in Oulton using the same access road as the Hornsea Three. In addition the two cable corridors cross at a point north of Reephams with the potential to increase impacts in the locality of this intersection.</p>	<p>Natural England agrees that cumulative assessment of the crossing of both corridors has to be considered.</p>
Great Yarmouth Borough Council (GYBC)		
ES - Offshore Ornithology	<p>GYBC raises concerns regarding the fact that the implications of Little Terns not being recorded as present during aerial surveys are not investigated into more detail. If this is due to limitations of the site specific surveys or if it is evidence that Little Terns are absent from the survey area. GYBC requests further clarification on the issue.</p>	<p>Natural England has not commented on this issue specifically but would support the request for further clarification.</p>
Norfolk County Council (NCC)		
General Comment	<p>The NCC has a preference for the use of High Voltage Direct Current (HVDC) rather than High Voltage Alternating Current (HVAC) option</p>	<p>Natural England has commented on the ES WCS and as such has not commented on the choice of transmission system. However Natural England would be interested in supporting options that could reduce the WCS.</p>
ES - Onshore ecology	<p>The NCC seeks conditions relating to highway; flood risk; and archaeological matters.</p>	<p>These topics are not part of Natural England's remit. However, we have outstanding concerns about the adequacy of the assessment of ecological impacts resulting from flood events.</p>
ES – Seascape and Landscape	<p>The NCC raised concerns regarding the disruption to the Norfolk Coastal path due to the landfall location at Weybourne, which might result on restricted access along the beach or temporarily diversion of the coastal path. The NCC are yet to be convinced that the initial proposals for managing users of the Trail at Weybourne are workable</p>	<p>Natural England also queries the lack of detail on measures that might be taken to mitigate for any adverse visual impacts and whether any footpath</p>

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	and encourage the developer to continue discussions with the NCC and an appropriate plan to be drawn up.	improvements might be required for the diversion.
North Norfolk District Council (NNDC)		
General Comment	The NNDC seeks clarification of whether HVAC or HVDC will be used, and whether onshore and offshore booster stations are required. NNDC would prefer HVDC and no booster station.	Natural England has commented on the ES WCS and as such has not commented on the choice of transmission system. However Natural England would be interested in supporting options that could reduce the WCS.
	Highlights that the benefits of any landscape mitigation works planned in construction Phase One are not damaged or undermined by a protracted phase two timetable which may include re-opening trenches.	Natural England supports this comment and also expressed concern in the Relevant Representation around the elements of phased build approach that have not been fully explored in the WCS.
ES – Project description	<ul style="list-style-type: none"> • Horizontal Direct Drilling (HDD) approach would prove to be the least likely to have impacts on nearshore processes during construction and would be preferred. • Likewise buried cabling would be preferred to minimise impacts to coastal processes with low profile protection being the secondary position. • The NNDC is concerned over open cut installation methods and potential impacts of nearshore works, the timing of works and how impacts on public footpaths and rights of way, including public access to the beach. 	Whilst recognising HDD can potentially reduce the impacts to the MCZ, Natural England remains concerned about the potential impacts of HDD exit pits and associated activities on the protected features of the MCZ, as well as visual impacts on the users of the Coastal Path.
ES - Onshore ecology	The NNDC believes it will be important at examination stage to ensure the correct HDD method has been chosen along the onshore cable route. The loss of woodland should be avoided and the option passing through a hedgerow marked as having high and very high bat activity should be avoided as well. Where there are justifiable reasons as to why species harm cannot be avoided, appropriate mitigation should be put in place.	Natural England agrees with the concerns raised.
South Norfolk Council (SNC)		
ES – Seascape and Landscape	The SNC is concerned that the creation of woodland, whilst offering an opportunity to reduce the visual and aural impact of the A47 on the rural ambience of this area, would impact on the openness of the bypass protection zone, which could result in a significant adverse effect.	Traffic safety and visual impacts outside an AONB are not part of Natural England's remit.
ES – Seascape and Landscape	Key landscape and visual impacts will result from cabling and removal/loss of hedgerows, trees and key landscape features and the impact of substation on landscape character. The proposed substation is located with the B1 Tas Tributary Farmland Landscape Character Area and adjacent to C1 Yare Tributary with Parkland. Clarification is needed on the removal of hedgerows crossing the	It is Natural England's view that there is insufficient information in the application to determine impact from the onshore cable corridor on special qualities of the Norfolk

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	<p>substation location as this would be a permanent loss and no assessment has been done. There is no assessment of trees potentially affected by these proposals particularly on the sub-station site or no tree replanting proposed for the cable corridor, just for hedgerows. Enhanced planting is subject to landowner agreement and a mechanism should be agreed by which such enhancements could be guaranteed.</p>	<p>Coast Area of Outstanding Natural Beauty (AONB). Trees and hedgerows are important landscape features that need to be replanted. However, it is not within Natural England's statutory remit to comment on the visual impacts outside the AONB.</p>