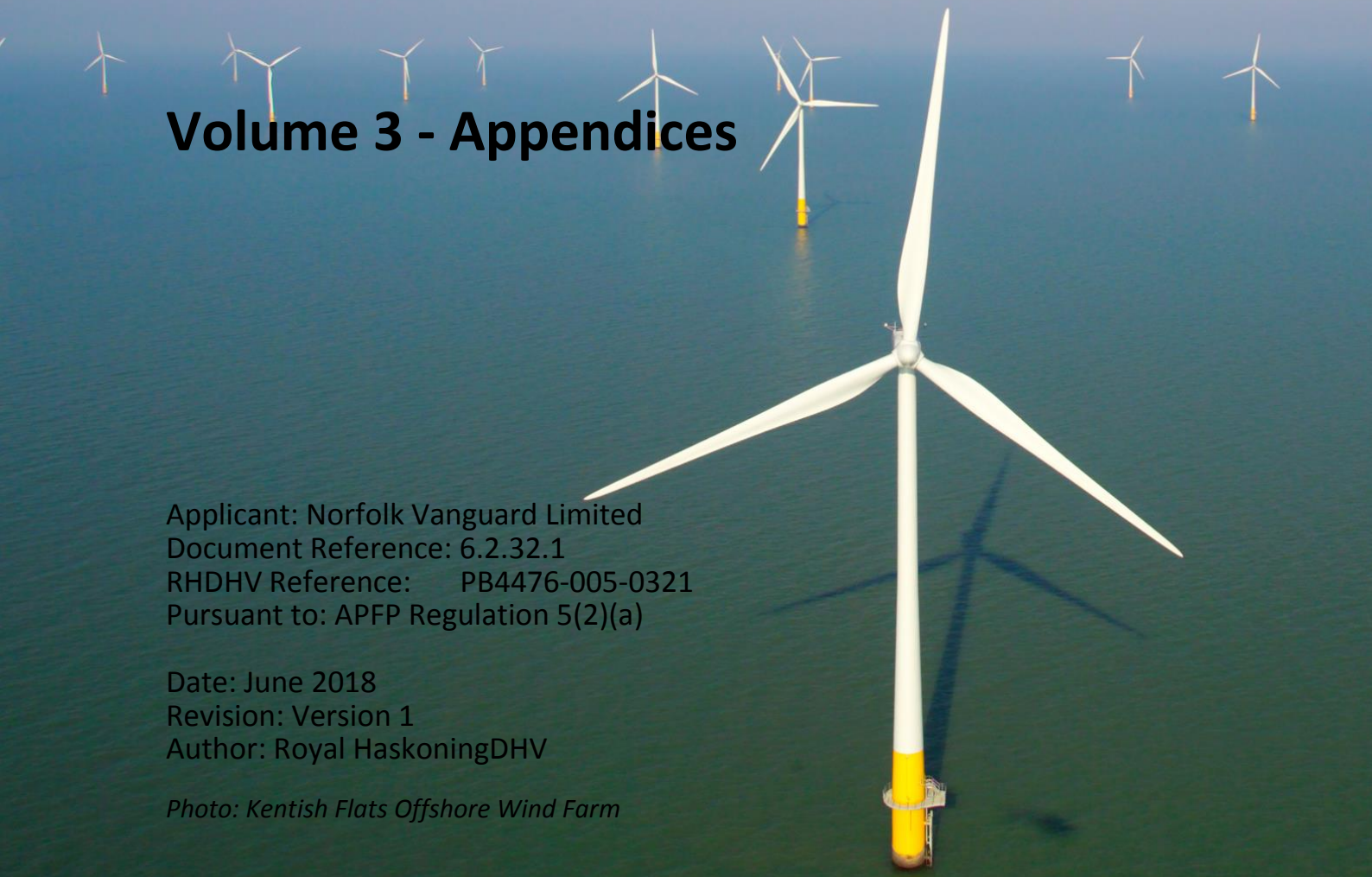
Norfolk Vanguard Offshore Wind Farm

Appendix 32.1

Cumulative Impact Assessment Consultation

Environmental Statement

Volume 3 - Appendices



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Environmental Impact Assessment
Environmental Statement

Document Reference: PB4476-005-0321

June 2018

For and on behalf of Norfolk Vanguard Limited

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Signed: [redacted]

Date:8th June 2018

For and on behalf of Royal HaskoningDHV

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32 PLANS AND PROJECTS CONSIDERED IN THE CIA

Table 32.1 Summary of consultation in relation to CIA

Consultee	Date /Document	Comment	Response / where addressed in the ES
Chapter 8 Marine Geology Oceanography and Physical Processes			
MMO	11th December 2017 PEIR Response	This study does show considerable overlap between the envelope of effects on hydrodynamics (in terms of wave height) for an adjacent development (East Anglia Three) and Norfolk Vanguard East. The assessment essentially concludes that effects of each individual development are negligible, and that the cumulative impacts are negligible also. However, the method used (simple extension of modelling results for a third individual development) does not convincingly support this conclusion since the original results did not assess in-combination effects.	The approach to cumulative operational effects on waves was based on expert assessment (overlapping of zones of potential influence) as described in section 8.8.3 in Chapter 8 Marine Geology, Oceanography and Physical Processes. The modelling results of East Anglia ONE were used in the expert assessment merely to show that changes to waves due to the presence of foundation structures would be small in magnitude and localised in spatial extent (i.e. restricted to the vicinity of each foundation), and that this applies to cumulative layouts as well as for individual wind farm layouts.
Chapter 10 Benthic and Intertidal Ecology			
Norfolk County Council	November 2016	The ES/EIA will need to address the potential impact on ecology, including in particular, impact on the following interests: • designated sites; • marine benthos; The need to consider cumulative impact is a requirement of the EIA process. Projects to be incorporated in such an assessment must include those in the past, present and foreseeable future. Projects to be incorporated in such an assessment must	Designated sites are considered throughout the impact assessment in section 10.7 of Chapter 10 Benthic and Intertidal Ecology. Cumulative impacts are considered in section 10.8 of Chapter 10 Benthic and Intertidal Ecology.

Consultee	Date /Document	Comment	Response / where addressed in the ES
		include not only other potential wind farms but also other types of project taking place in the marine environment or onshore so that all elements of the infrastructure are assessed.	
Eastern IFCA	February 2017/ EPP meeting minutes	Aggregate operations to the south of the SCI must be included in cumulative assessment.	Consideration of all other relevant activity within the area is given in section 10.8 of Chapter 10 Benthic and Intertidal Ecology.
Cefas	February 2017/ EPP meeting minutes	The Bacton Sandscaping Scheme needs to be included [within the cumulative impact assessment]	Consideration of all other relevant activity within the area is given in section 10.8 of Chapter 10 Benthic and Intertidal Ecology.
The Wildlife Trust	08/12/2017 PEIR Response	The Wildlife Trust (TWT) has concerns regarding the cumulative impacts of repeated cable installation and suggest further work is required on the cumulative impacts of Norfolk Vanguard and Norfolk Boreas. There is an opportunity to reduce cumulative impacts by considering embedded mitigation such as planning the cabling infrastructure in advance for both projects.	Following the commitment of both projects to High Voltage Direct Current (HVDC) transmission technology the cumulative impacts have been greatly reduced. Further work has been undertaken to understand the cumulative impacts especially within the SAC Appendix 8.1 of the ES and Appendix 7.2 of Information to inform HRA (document 5.3).
Eastern IFCA	11/12/2017 PEIR Response	The Eastern IFCA would encourage further assessment on an ongoing basis of the cumulative impacts of all Southern North Sea wind farm activity, as well as other activities including aggregate extraction activities. The impacts of these projects on the marine environment and fisheries should be assessed in-combination, highlighting any potential cumulative effects associated with the licence	This is understood; however, this is not within the remit of a single project and would need to be undertaken at a strategic level and under the guidance of Regulators.

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		application.	
Chapter 11 Fish and Shellfish Ecology			
Eastern IFCA	December 2017 PEIR Response	Sandeels rely on sandbanks and other sandy substrata similar to those found in the Haisborough, Hammond and Winterton SCI (Ellis et al., 2012). There is a potential pathway for the species to be impacted by the construction and operational work, as well as by the habitat loss associated with unburied, protected cable, however the PEIR has identified these as not significant. This should be further considered to address the cumulative impacts of the project on sandeels with other plans and projects in the Southern North Sea.	Consideration has been given to the potential impacts of the construction and operation phases of the Project on sandeels (section 11.7.4 and section 11.7.5 of Chapter 11 Fish and Shellfish Ecology). The assessment carried out in respect of permanent loss of habitat takes account of the potential habitat loss as a result of the footprint of the project, including areas of potentially unburied cable where protection may be required (section 11.7.5.1 of Chapter 11 Fish and Shellfish Ecology). An assessment of the potential cumulative impacts of the Project on sandeels, and other fish and shellfish receptors, in conjunction with other developments in the Southern North Sea, has been undertaken and is presented in section 11.8 of Chapter 11 Fish and Shellfish Ecology. All potential impacts assessed for the Project alone have also been considered for assessment of cumulative impacts.
Eastern IFCA	December 2017 PEIR Response	Although the best available information (Coull et al., 1998; Jensen et al., 2011; Ellis et al., 2012) shows extensive spawning grounds for many species, Eastern IFCA is concerned about the scale of offshore activities (particularly aggregate extraction and offshore wind farm construction) in the Southern North Sea because of cumulative effects these could have on seabed habitats. Whilst we appreciate the difficulty in studying potential wide-scale impacts, we consider the issue does warrant further consideration.	Cumulative impacts in relation to fish and shellfish species are assessed in section 11.8 of Chapter 11 Fish and Shellfish Ecology. Potential cumulative impacts on seabed habitats are discussed in Chapter 10 Benthic and Intertidal Ecology.
Eastern IFCA	December 2017	Eastern IFCA maintains concerns about the potential for electromagnetic fields (EMF) from	The assessment of the potential impact of electromagnetic fields (EMFs) on fish and shellfish species is based on the worst case scenario identified for

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	PEIR Response	marine electricity cables affecting fish species, especially elasmobranchs (sharks, skates and rays) that are the most widespread electrosensitive fish group of UK coastal waters (CMACS, 2003). This is an increasing concern as the number of offshore energy development (and therefore marine electricity cables) increases – therefore cumulative effects of multiple developments must be considered. Currently there is uncertainty over whether EMF from cables does have an impact on receptive species. We suggest that the environmental impact assessment must present the latest understanding of this issue, and if appropriate, precautionary mitigation must be applied (e.g. use of high-permeability materials for armouring cables) to minimise impacts.	the Project (section 11.7.5.4.4 and Table 11.1 of Chapter 11 Fish and Shellfish Ecology). In the context of the assessment of Electromagnetic Fields (EMFs) it is important to note that from the results of post-consent monitoring conducted to date, there is no evidence to suggest that EMFs pose a significant threat to elasmobranchs at the site or population level, and little uncertainty remains (MMO, 2014) (see paragraph 271 of Chapter 11 Fish and Shellfish Ecology) Consideration has been given in the cumulative assessment to the potential impact of EMFs associated with the Project and other developments in the wider area on sensitive receptors (section 11.8 of Chapter 11 Fish and Shellfish Ecology). As described in Section 11.7.1 of Chapter 11 Fish and Shellfish Ecology, cables will be buried where possible to a minimum depth of 1m and protected where cable burial is not feasible.
Natural England		Cumulative Impact Assessment: – If a phased approach is undertaken this needs to be an ever evolving process, particularly upon sensitive environmental receptors. The effect of one phase and any residual cumulative impacts will need to be strongly considered when any other potential phases are brought forward.	The Project programme has been refined with the maximum duration of the construction period now being reduced to a maximum of up to 4 years and only a single phase or two phase approach proposed (section 11.7.3 of Chapter 11 Fish and Shellfish Ecology). Three phase construction is no longer being considered as a design option.
Natural England	December 2017 PEIR Response	It needs to be made clearer whether a cumulative impact assessment regarding impacts of construction noise has already been carried out. There doesn't seem to be much discussion around any associated impacts, considering there could be up to 7 projects within 100 km that could have an effect. NE	Consideration has been given to all fish and shellfish ecology receptors in relation to potential cumulative impacts with other projects as a result of construction noise (Section 11.8.1.3 of Chapter 11 Fish and Shellfish Ecology).

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		believes there is a tendency in this section to still be focused on the immediate area of the Vanguard project and not the wider cumulative effects. The more projects that are piling sequentially and concurrently are obviously increasing the area of disturbance, but also reducing the areas the fish can move into to avoid this disturbance. This needs to be reflected in table 11.21, as the cumulative impact of noise from construction will not just affect species with spawning grounds in the Norfolk Vanguard area.	
Chapter 12 Marine Mammals			
The Wildlife Trust	08/12/17 PEIR Response - 3.4: Cumulative impact assessment	Fishing must be included in the cumulative impact assessment. This is based on a precedent set when TWT began Judicial Review proceedings against the Department for Energy and Climate Change in August 2015 against the approval of Dogger Bank Offshore Wind Farm Order due to the exclusion of fishing from the in-combination assessment as part of the HRA. Fishing is a licensable activity and according to the Waddenzee case[1], the regular grant of licenses constitutes a plan or a project. Although our position remained, TWT withdrew the claim due to assurances given by the government regarding the management of fishing within Dogger Bank SAC. One of those assurances was that steps would be put in place to ensure that this scenario would not happen again and that Defra and DECC would work together to ensure	Fishing activity, like other ongoing marine activities such as oil and gas, aggregate extraction and shipping, is considered part of the existing baseline, as it has existed in the North Sea for a long time before any OWF construction, it is not a recent or an increasing activity (in most areas fishing is currently in decline). It is more appropriate for fishing to be assessed as part of a more strategic government led assessment rather than project / developer led assessment.

[1] C-127/02 Wadenzee [2004] ECR 1-7405

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		fishing would be included in future offshore wind farm impact assessments. Although our challenge was in relation to the lack of inclusion of fishing as part of the HRA assessment, the same principle should apply to the EIA cumulative assessment.	
The Wildlife Trust	08/12/17 PEIR Response - 3.4: Cumulative impact assessment	We are in agreement with paragraph 715 that due to uncertainty in project level CIAs, a strategic approach to assessment is required. Different approaches to assessment are taken by offshore developers using different noise criteria and thresholds and different assessment. A strategic approach would ensure consistency, produce more realistic outcomes and provide industry with more certainty on mitigation requirements.	As outlined in section 12.8.3 of Chapter 12 Marine Mammals, the level of uncertainty in completing a CIA further supports the need for a more strategic assessment rather than developer led assessment. Norfolk Vanguard Limited is supportive of these strategic initiatives, and will continue to work alongside other developers, Regulators and SNCBs in order to further understand the potential for significant cumulative impacts, and lead to reductions in impacts where appropriate.
The Wildlife Trust	08/12/17 PEIR Response - 3.4: Cumulative impact assessment	A number of different CIA scenarios have been presented in tables 12.80 to 12.83 of the PEIR, with the magnitude impacts ranging from high to low. Following the discussion with the Marine Mammal Expert Topic Group, we agree that, for clarity, the most likely worst-case scenario should be presented.	As agreed the most 'likely scenario' for the potential worst-case for the CIA has been assessed in the ES chapter. The theoretical worst-case and other scenarios have been assessed in Appendix 12.6.
Natural England	11/12/17 PEIR Response – Point 20: Para 753	Natural England appreciate it is difficult to know at this time how many UXO detonations may be required prior to commencement or UXO survey works. However, we consider it to be possible to assess a certain quantity of detonations based on experience of similar sized projects in the southern North Sea.	The CIA is based on the number of potential UXO detonations that could potential occur at the same time, not the number of UXO that could be present with each site. The assessment of the potential UXO at Norfolk Vanguard has included a strategic UXO risk management assessment (presented in Appendix 5.2) as outlined in section 12.7.3.1 of Chapter 12 Marine Mammals.
Ministry of Infrastructure	11/12/2017 PEIR	The impact on the marine mammals due to disturbance is described as the number of animals impacted by one instance of an event.	As outlined in section 12.8.3 of Chapter 12 Marine Mammals population models, such as Disturbance Effects of Noise on the Harbour Porpoise

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and Water Management Netherlands	Response	This is then classified according to the criteria mentioned in the PEIR. However, the consequences for the population aren't calculated. This makes it difficult to determine the cumulative effects other than qualitatively. As this is the preliminary impact assessment, we hope (and expect) that population consequences will be calculated in the next phase of the environmental impact assessment.	Population in the North Sea (DEPONS) and the interim Population Consequences of Disturbance (iPCoD) used at a strategic level would allow consideration of the biological fitness consequences of disturbance from underwater noise, and the conclusions of a quantitative assessment to be put into a population level context. Norfolk Vanguard Limited is supportive of these strategic initiatives, and will continue to work alongside other developers, Regulators and SNCBs in order to further understand the potential for significant cumulative impacts, and lead to reductions in impacts where appropriate.
Ministry for the Environment, France	11/12/2017 PEIR Response	It is important to note the negative effects of underwater noise from piling on marine mammals during the building phase. Indeed, other wind farms could be constructed at the same time by creating huge cumulative impacts on these marine mammals.	The cumulative impacts of the construction of other offshore windfarms at the same time as Norfolk Vanguard has been assessed in section 12.8 of Chapter 12 Marine Mammals population.
Chapter 13 Offshore Ornithology			
Extensive consultation was undertaken with regards to the CIA for offshore ornithology. Please see Chapter 13 Offshore Ornithology for all consultation responses with regards to the CIA.			
Chapter 14 Commercial Fisheries			
Norfolk County Council	November 2016 Scoping Opinion Response	The scoping report specifically refers to the need to take into account the potential cumulative impacts of other wind farm developments within the former East Anglia Zone (page 150 para 583). Whilst supporting this principle, it is felt that the Environmental Impact Assessment (EIA) should take into account the wider cumulative impacts arising from other operational, consented and proposed wind farms off the Norfolk Coast (i.e. taking into account wind farms consented under earlier consenting rounds/ licencing regimes). Commercial fishing	The assessment of cumulative impacts (section 14.8 of Chapter 14 Commercial Fisheries takes account of consented and proposed offshore wind farm projects in the former East Anglia Zone and the wider area, including both UK and non-UK projects and takes account of all relevant fleets, including local fleets. As outlined in section 14.8 of Chapter 14 Commercial Fisheries, operational projects are considered to be part of the existing environment and therefore have not been included in the cumulative assessment.

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		contributes to the coastal economy in Norfolk and as such the impacts of this proposal alongside those already in operation, consented or planned needs to be carefully considered.	
Norfolk County Council	November 2016 Scoping Opinion Response	The EIA/PIER should consider the potential impact of the offshore scheme, including any underwater cable routes and other ancillary development on Norfolk's commercial fishing interests. The EIA will need to consider the wider cumulative impacts taking into account existing operational windfarms: those under construction: those consented and those in planning. The EIA should set out appropriate mitigation, and where necessary indicate what compensation, will be given to those commercial fishing interests in Norfolk adversely impacted by the operation of the wind farm and/or ancillary development. In addition, the EIA should provide an indication of the likely impact on the local fishing industry particularly when other proposals are taken into account.	Consideration has been given in this chapter to all relevant offshore infrastructure associated with the project for assessment of potential impacts on commercial fisheries, including offshore cables (Table 14.16 of Chapter 14 Commercial Fisheries). Proposed and consented wind farms in the former East Anglia Zone and the wider area (both UK and non-UK projects) have been included for assessment of cumulative impacts for all fisheries receptors, including local fleets (section 14.8 of Chapter 14 Commercial Fisheries). Operational wind farms are considered part of the existing environment and have therefore not been included in the cumulative assessment. A number of embedded mitigation measures have been incorporated as part of the design of the project. Those of relevance to commercial fisheries are described in section 14.7.1 of Chapter 14 Commercial Fisheries Where appropriate, additional mitigation measures have been identified (section 14.7.4.2.3 of Chapter 14 Commercial Fisheries). These will be implemented taking an evidence based approach in line with FLOWW guidance (section 14.7.4 of Chapter 14 Commercial Fisheries).
Eastern IFCA	October 2017 Consultation on PEIR	The East Marine Plans support sustainably-developed offshore wind energy generation projects. There are many of such projects in the southern North Sea, including Dudgeon, Sheringham Shoal, Scroby Sands, Race Bank, Triton Knoll, Lynn & Inner Dowsing, Lincs, and East Anglia offshore windfarms as well as other projects and plans. While Eastern IFCA appreciates that the cumulative impacts of Norfolk Vanguard with Norfolk Boreas and East Anglia THREE offshore wind farms have been comprehensively assessed within this PEIR,	The assessment of cumulative impacts (section 14.8 of Chapter 14 Commercial Fisheries) takes account of consented and proposed offshore wind farm projects in the former East Anglia Zone and the wider area, including both UK and non-UK projects. Operational offshore wind farm projects are considered to form part of the existing environment and therefore have not been included in the cumulative assessment. In addition to offshore wind farms a range of other projects/activities have also been given consideration for assessment of cumulative impacts, including aggregate dredging areas (section 14.8 of Chapter 14 Commercial Fisheries).

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		Eastern IFCA would encourage further assessment on an ongoing basis of the cumulative impacts of all Southern North Sea wind farm activity, as well as other activities including aggregate extraction activities. The impacts of these projects on the marine environment and fisheries should be assessed in-combination, highlighting any potential cumulative effects associated with the licence application and guiding decision-making and plan implementation in a stepwise approach.	
Eastern IFCA	October 2017 Consultation on PEIR	Where conclusions have been drawn within the PEIR that the project could have cumulative impacts with other plans/projects, these should be mitigated for wherever possible. This includes mitigation of the cumulative impacts on offshore ornithology, marine mammals and commercial fisheries.	The cumulative effects of the project in conjunction with other projects and activities are assessed in section 14.8 of Chapter 14 Commercial Fisheries. The cumulative assessment carried out did not identify significant cumulative impacts on fisheries receptors. Specific mitigation in respect of cumulative impacts, additional to those proposed in the assessment of the project alone have therefore not been proposed. Cumulative impacts on seabirds are discussed in Chapter 13 Offshore Ornithology. Cumulative impacts on marine mammals are discussed in Chapter 12 Marine Mammals.
Natural England	October 2017 Consultation on PEIR	Natural England do not necessarily agree that only impacts assessed as significant resulting from the construction and operation will have the potential to contribute to cumulative effects. A range of smaller impacts over a long period of time could eventually become a significant impact.	All the potential impacts on commercial fisheries assessed for the project alone have been taken account of in the cumulative assessment (section 14.8 of Chapter 14 Commercial Fisheries). Exceptions to this are safety issues and risks associated with seabed obstacles as it is understood that the same obligations will apply to other projects and therefore there is no potential pathway for a cumulative impact.
Chapter 15 Shipping and Navigation			
Norfolk County Council	Scoping Opinion November	The Scoping Report (page 179, paragraph 659) refers to the potential cumulative impacts on shipping and navigation arising from other sites	Appendix 15.1 includes an assessment of the cumulative impact on routes from southern North Sea wind farms, which are then assessed in section 15.8 of Chapter 15 Shipping and Navigation. All impacts to commercial, fishing and

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	2016	in the former East Anglia Zone. This needs to be extended to the wider cumulative impacts arising from other operational, consented and proposed wind farms off the Norfolk Coast (i.e. taking into account wind farms consented under earlier consenting rounds / licencing regimes). The impacts need to be considered in terms of (a) commercial shipping; (b) fishing vessels and (c) recreational vessels. The County Council acknowledges that it will be a matter for the appropriate regulatory bodies to comment on the detailed matters relating to shipping and navigation, however, the County Council is keen to ensure that there will not be any demonstrable negative impact on Norfolk's ports as a consequence of the proposed offshore wind farms and any potential change in shipping and navigational routes.	recreational vessels were assessed as being within tolerable levels (with additional mitigation implemented where necessary).
Norfolk County Council	Scoping Opinion November 2016	The EIA should indicate that suitable navigation and shipping mitigation measures can be agreed with the appropriate regulatory bodies to ensure that Norfolk's Ports (King's Lynn and Wells) are not adversely affected by this proposal. The EIA will need to consider the wider cumulative impacts taking into account existing operational wind farm; those under construction; those consented and those in planning.	Embedded mitigation measures are listed in section 15.7.1 of Chapter 15 Shipping and Navigation. Where identified as necessary, proposed additional mitigation measures are presented in section 15.11 of Chapter 15 Shipping and Navigation. With additional mitigation in place, all impacts were assessed to be within tolerable levels. Cumulative impacts have been assessed in section 15.8 of Chapter 15 Shipping and Navigation. Again, these were all within tolerable levels with additional mitigation in place where necessary.
Trinity House	Scoping Opinion November 2016	The Navigational Risk Assessment (NRA) should include: • Comprehensive vessel traffic analysis in accordance with MGN 543; and	An MGN 543 checklist has been completed as part of Appendix B in Appendix 15.1. Up to date marine traffic survey data has been used to assess current shipping levels and patterns within the vicinity of the project. The results of

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		• Assessment of the possible cumulative and in-combination effects on shipping routes and patterns. Any proposed layouts should conform with MGN 543; however, should some structures such as OSPs lie outwith the actual wind farm turbine layout, then additional risk assessment should be undertaken.	the analysis are available in section 12 of Appendix 15.1. Vessel routeing has been considered on a cumulative basis in section 19 of the Appendix 15.1. Associated impacts have been assessed in this chapter in section 15.8 of Chapter 15 Shipping and Navigation.
Cruising Association (CA)	8 May 2017 Minutes from consultation meeting with CA.	The key concern is the cumulative impact of all the projects in the former East Anglia Zone as opposed to just that from the Norfolk Vanguard and Norfolk Boreas sites.	A cumulative assessment of routes is presented within section 15.3 of Appendix 15.1.
Maritime and Coastguard Agency	11 Dec 2017	The possible cumulative and in combination effects on shipping routes should be considered taking into account the proximity to other windfarm developments; Norfolk Vanguard East, Norfolk Vanguard West, Norfolk Boreas, the alignment with East Anglia Three and other operations throughout the Southern North Sea.	An assessment of likely cumulative routeing is presented in Section 19.3 of the NRA (Appendix 15.1), which takes the wind farms mentioned within the MCA response into account. Collision has been assessed on a cumulative basis in Section 22 of the NRA (Appendix 15.1). Associated impacts are assessed in Chapter 15 Shipping and Navigation section 15.7.
Chapter 17 Offshore Archaeology and Cultural Heritage			
Historic England via The Planning Inspectorate (Secretary of State)	November 2016 / Scoping Opinion	Rigid criteria such as visual limits cannot necessarily be applied when assessing the significance of heritage assets and the contribution made by their setting (e.g. the contribution that views looking out from the assets make to their overall significance). Such an assessment of significance should instead by a matter of expert judgment of 'what matters and why', framed within a concise narrative	The assessment of setting is presented as a narrative description in section 17.6.4 of Chapter 17 Offshore Archaeology and Cultural Heritage.

Consultee	Date /Document	Comment	Response / where addressed in the ES
		description.	
Historic England via The Planning Inspectorate (Secretary of State)	November 2016 / Scoping Opinion	It might be appropriate for the Applicant to instead consider assessment regarding the maximum size possible for 15MW turbines and the extent of visibility from selected heritage assets on the adjacent coast during both daylight and any impression of night time illumination, plus cumulative factors with other similar developments.	A full settings assessment of heritage assets onshore is provided in the onshore assessment of archaeology and cultural heritage (see Chapter 28 Onshore Archaeology and Cultural Heritage).
Historic England via The Planning Inspectorate (Secretary of State)	November 2016 / Scoping Opinion	Within this assessment of setting the Applicant would need to consider Historic Seascape. We would encourage the focus to be on determining any change to the historic character and the capacity of the presently perceived historic character to accommodate that change.	Historic seascape character is discussed in section 17.6.4 of chapter 17 Offshore Archaeology and Cultural Heritage and the capacity of the presently perceived historic character to accommodate change discussed in 17.7.5.4, 17.7.6.4 and 17.1.1.4 of Chapter 17 Offshore Archaeology and Cultural Heritage.
Historic England / Norfolk County Council Historic Environment Service	February 2017 / EPP ETG Offshore Archaeology Meeting Log	Cumulative Cumulative nature of development is considered and explained in reference to context of other development which has occurred – in order to understand what the impacts are and viability of mitigation. Cumulative knowledge of understanding and positive gains. 'What matters and why' – a narrative around clarification of approach.	Cumulative impact assessment presented in section 17.8 of Chapter 17 Offshore Archaeology and Cultural Heritage.
Historic England	February 2017, Response to Offshore Archaeology Method Statement	Have the relevant potential cumulative impacts been identified? If not, please provide details We note that Vattenfall is also developing the Norfolk Boreas offshore wind farm (OWF) and that at this stage Norfolk Boreas will use the same offshore cable corridor and landfall location as both Norfolk Vanguard turbine array	Cumulative impact assessment presented in section 17.8 of Chapter 17 Offshore Archaeology and Cultural Heritage. Transboundary impacts are discussed in section 17.9 of Chapter 17 Offshore Archaeology and Cultural Heritage.

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		areas. We also welcome the statement regarding other OWF developments off East Anglia and we look forward to receiving from you how the Cumulative Impact Assessment (CIA) and how any identifiable transboundary impacts will be assessed as relevant to the historic environment and landscape/seascape factors.	