Application by Norfolk Boreas Limited for an Order Granting Development Consent for the Norfolk Boreas Offshore Wind Farm Project

23rd July 2020



Deadline 13 Submission by the Eastern Inshore Fisheries and Conservation Authority

A. Eastern IFCA to confirm its final position on compensatory measures, taking account of the Applicant's response [REP11-008].

Eastern IFCA appreciate the Applicant's feedback and response to our comments regarding the in-principle compensatory measures set out by the Applicant. Despite the Applicant's comprehensive response, Eastern IFCA maintains the concerns set out in our Deadline 10 submission that a significant extension to the SAC at the scale outlined could set a precedent for compensating for the impacts of offshore wind generation by restricting the inshore fishing industry, result in disproportionate socioeconomic issues for inshore fishery stakeholders, and may only provide minimal conservation gains.

Please see Table 1 for our specific comments responding to the Applicant's comments within REP11-008.

Table 1: Summary of comments on the proposed HHW SAC in-principle compensatory measures between Eastern IFCA and the Applicant

Summary of Eastern IFCA's D10 Submission	Applicant's Comments	Eastern IFCA's D13 Comments
Response to the Applicant's proposed HHV	/ SAC In-Principle Compensatory Measures	
1.1. The following comments are raised for the situation in which the Secretary of State decides that no adverse effect on site integrity cannot be concluded and that compensatory measures are required to permit Norfolk Boreas Offshore Wind Farm to progress. We would like to refer to the mitigation hierarchy for dealing with negative impacts on biodiversity, which outline that compensatory measures should only be used where avoidance and mitigation are not possible or sufficient to conclude no adverse effect on site integrity. 1.2. Compensatory measures outside of the development site may offset the impact but will not prevent the negative impacts within the site. Eastern Inshore Fisheries and Conservation Authority (Eastern IFCA) would urge to first and foremost focus on avoiding, minimising and mitigating impacts within the offshore wind farm site and cable route.	The Applicant's firm position is that there is no adverse effect on integrity as a result of the Project alone or in-combination with other plans or projects. Therefore, derogation under Article 6 (4) of the Habitats Directive is not required. The Applicant has proposed significant mitigation measures, including those that which have been agreed at Deadline 10, to reduce any potential effects on the HHW SAC. These mitigation measures, many of which have been introduced during the Norfolk Boreas Examination, and therefore after the original Information to Support HRA Report [APP-201] had concluded there would be no AEol, provide further confidence that a conclusion of no AEol can be reached. Without prejudice to this position, in-principle compensation has been presented as requested by the ExA along with appropriate drafting to secure this in the DCO if necessary. The Applicant welcomes the advice and opinions provided within the Eastern IFCAs submission, and note that this is consistent with the advice which has been provided to the Norfolk Vanguard consultation. The Applicant has undertaken an assessment of alternative cable routes both as part of the	Noted

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	EIA [APP-217] and in the context of an inprinciple derogation case [REP7-024] and has concluded that there is no feasible alternative export cable route that would avoid the HHW SAC. This is due to the fact that if cables were routed to the north of the HHW SAC they would encounter other designated sites (both SACs and MCZs) and if routed to the south they would encounter licensed aggregate dredging areas and further designated sites. Therefore, impacts would be far greater if an alternative were used. The Applicant has reduced and mitigated impacts as far as possible. This has been acknowledged by Natural England in their Position Statement regarding mitigation and compensation [REP9-045, para 1.24] which states, "Natural England considers that the Applicant has taken all reasonable steps to reduce the impacts of the proposed development on both of the designated features of HHW SAC and we welcome this effort". Whilst Natural England has also suggested that surface laid cables and marker buoys could be employed to remove the need for cable protection, the Applicant has explained that this is not feasible due to water depths within the HHW SAC, the mobile sediment conditions, the distance offshore and possible risks to the Health and Safety of other marine users [REP10-033].	

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2.1. Eastern IFCA have identified a number of areas within REP7-027 that could benefit from increased clarity and/or correction. We would appreciate it if the Applicant could please provide either correction or explanation on these points, which are set out in paragraph 2.2 below.	[Please note that where the Eastern IFCA refer to 0.3km² in Table 3.1 of the [RE7-027], this is not quoted correctly as Table 3.1 refers to 0.03km². However, the response provided below assumes the Eastern IFCA are referring to the numbers as quoted correctly in Table 3.1].	Thank you for clarifying the figures and calculations used within RE7-027.
2.2. Eastern IFCA have been in discussion with the Applicant regarding some errors in the numbers set out in REP7-027. In particular, Table 3.1 outlines that the maximum worst case habitat loss for the project would be 0.3km2 (including 0.02km² reef and 0.03 km² sandbanks), however Paragraph 36 then continues to state that based on Norfolk Vanguard creating 0.02km² area of habitat loss, the total habitat loss would then be 0.04km² for the two projects. When queried over these number, which do not add up, the Applicant outlined that Paragraph 36 has added in the additional total area of impact of Norfolk Vanguard for reef but omitted in error the combined area for Annex I sandbanks, and therefore should have stated that "if constructed Norfolk Vanguard Limited would also create up to 0.02km² area of habitat loss for Annex I reef and up to 0.3km² for Annex I sandbanks, thus the total area of habitat loss within the HHW SAC across the two projects would be up to 0.04km² for Annex I reef and up to 0.6km² for Annex I sandbanks." Based on	As stated in the Applicant's In Principle Habitats Regulations Derogation Provision of Evidence [REP7-024]. The nature and extent of compensatory measures can only be addressed if and when the precise nature of any AEoI has been identified and quantified. Furthermore, the Applicant will not know until further detail on the route design and further survey data (a survey is due to take place in summer 2020), the precise size of the area which will be affected, and therefore the precise area of compensation which may be required. The compensatory measures proposed by the Applicant were developed jointly with Norfolk Vanguard, in consultation with Natural England as the Statutory Nature Conservation Body. During these consultations [listed in Appendix 4 of the derogation case, REP7- 028] the primary concern of Natural England was permanent habitat loss for Annex I reef due to cable protection placed where cables cannot be buried to the optimum depth. Natural England's position has always been that cable protection placed at cable crossings	

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these numbers, Eastern IFCA would like to further query the numbers used throughout the remainder of the document, which use a value of 0.02km2 area of habitat loss for Annex I sandbanks (e.g. Figure 4.2/Footnote 10).	does not pose a threat to Annex I reef as any reef growing on existing infrastructure does not constitute Annex I reef. Therefore, the worst case scenario for habitat loss on Annex I reef is only associated with cable protection required to protect unburied cable. This area would be up to 0.02km². At the time of writing the derogation case, it had not been confirmed with Natural England whether this approach should also be applied to Annex I Sandbanks and their communities. Therefore, the worst-case scenario for the Sandbank feature includes cable protection placed at crossings and (as with the reef) cable protection placed where cables cannot be buried to the optimum depth. This equates to an area of 0.03km². Given that Natural England's primary concern was the effects that cable protection would cause to Annex I reef, the figure of 0.02km² was used when multiplying by the 1:10 ratio to determine that a 200,000m² (0.2km²) area was required for compensation. This was particularly relevant to the Norfolk Vanguard project as, at the end of Examination the areas of disagreement on AEoI focused on Annex I reef and cable protection to be installed where cables were not buried to the optimum depth. This is why paragraph 36 states a combined worst case scenario of 0.04km².	

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	As set out above, the combined totals for Annex I Sandbanks were not included in paragraph 36 because in consultation with Natural England, this was not the focus of the compensatory measures. Whilst the combined values for Annex I Sandbanks of 0.06km² could have been included for completeness, the combined worst case has subsequently been reduced to 0.04km² because: • The Applicant has agreed out of service agreements with BT Subsea and DTAG for Deadline 10 which has allowed the	
	Applicant to reduce the number of cable crossings within the HHW SAC to four per export cable;	
	 The Applicant has now reached agreement with BT Subsea and TDC NET on a further two out of service cables which would reduce the worst case scenario to two cable crossings within the HHW SAC; and 	
	 At Deadline 10, the Applicant agreed with Natural England to include a condition that cable protection measures must not take the form of rock or gravel dumping in the HHW SAC. As a result, cable protection will not hinder physical processes that govern the Annex I Sandbanks, and in Natural England's view this "significantly reduces the risk of AEoI". 	

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	With the out of service agreements in place the, the worst case scenario of each project for Annex I Sandbanks will be reduced from 0.03km² to 0.02km². Therefore, the combined total would be 0.04km² (0.02km² + 0.02km² = 0.04km²) and therefore the wording in paragraph 36 would not change. As stated in the derogation case [REP7-028] the worst case scenario areas for Annex I reef and Annex I Sandbanks should not be added together as the habitats cannot overlap therefore if the worst case scenario area of 0.02km² is affecting Annex I Sandbanks, it cannot be affecting Annex I Sandbanks, it cannot be affecting Annex I S. spinulosa reef. The worst case scenario values used in the remainder of the document, e.g. Figure 4.2/Footnote 10, are therefore correct.	
	As explained in the Applicant's response to WQ4.16.0.2 [REP10-034] should the Secretary of State (SoS) determine that both Norfolk Boreas and Norfolk Vanguard are required to provided compensatory measures, Norfolk Boreas would not be required to provide compensatory measures for combined effects with Norfolk Vanguard. Therefore, the combined figure stated in paragraph 36 relates to the proposal for strategic delivery of the compensation if it is required for both projects. In conclusion, the numbers provided in the derogation case were included to illustrate an	

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	area that could be delivered as a compensatory measure. However, until the SoS determines whether compensation is required, and if so which specific features require compensation (i.e. cable protection, cable installation, Annex I reef or Annex I sandbank) it is not possible to conclude the precise size of any compensatory measures to be delivered. This would therefore only be confirmed post consent as part of the scheme to be submitted for the Secretary of State's approval. Accordingly, the Applicant has not updated the derogation case previously submitted.	
Section 2.2.2 of the document outlines the pressures that are already in existence in the Haisborough, Hammond and Winterton SAC (HHW SAC) and refers to high pressure from fishing. Eastern IFCA would like to reiterate that this	The Applicant would like to clarify that the Natura 2000 Standard Data form for the HHW SAC¹ identifies fishing as having high pressure on the SAC. This is due to the fact that the designated features are sensitive to fishing rather than identifying high amounts of fishing pressure.	Noted
pressure is not consistent throughout the SAC, and that fishing pressure in the inshore area (within 0-6 nautical miles) is low. This has been explained in writing throughout the examination process, and is also detailed in the SAC Selection Assessment document, which explains "to the north and west of the site, the key fishing activities are less damaging, and include gill netting, long lining	The Applicant is aware that fishing pressure varies across the site and is currently much higher in the far east of the site, outside of the Eastern IFCA's jurisdiction. The Applicant considers that the Eastern IFCA's explanation that inshore areas of the HHW SAC currently experience very low fishing pressure adds further evidence to its	

¹ http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=UK0030369

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and potting". A more detailed description of fishing activity within the inshore area is provided below (Section 4.3). Compensatory measure proposals considerated below DCO	paper on the HHW SAC [REP5-057]) that it will be able to successfully microsite around Annex I <i>S.spinulosa</i> reef. The best available data shows that the Applicant would be able to microsite around Annex I reef. Natural England consider that fisheries management measures proposed within the HHW SAC, such as Area 36 which has been proposed within the Norfolk Boreas offshore cable corridor (see the Applicant's clarification note [REP4-022] on Optimising cable routing within the HHW SAC) will reduce fishing pressure which could lead to a significant increase in the extent of Annex I reef. Natural England have concerns that this could occur to such an extent that the Applicant would not be able to successfully microsite around Annex I reef, which is one of the key mitigation measures. The Applicant does not consider that the fisheries management measures will have such an effect, and this is because the current level of fishing is very low and therefore its restriction will have a very limited effect. The Eastern IFCAs description here and elsewhere in their Deadline 10 submission adds further weight to the Applicant's position.	
Establish an Annex 1 reef at a location outside the HHW SAC	The Applicant welcomes the Eastern IFCA's potential support for this option, however, as	Noted
Eastern IFCA would in principle be supportive	previously stated [REP7-027] Natural England	
of appropriate proposals to introduce native	advised that oyster beds would not deliver	

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mussels or oysters into areas of the North East Norfolk coast, or within another offshore wind farm area, however, would need further information to provide formal comments on any proposals. Despite the current consideration that oyster beds are not an Annex 1 habitat feature, Eastern IFCA consider that supporting the establishment of a native oyster bed could provide similar environmental benefit to Sabellaria reef, supporting valuable ecosystem services (e.g. water filtration, habitat provision for forage fish, invertebrates and other shellfish, and at large scales shoreline protection, wave buffering). Oyster beds are also considered a feature of conservation importance in some Marine Conservation Zones on the east coast. If this option were being considered to be taken forward, Eastern IFCA would require further details of the fisheries implications of any such proposal, including whether introduced beds would be fished (within appropriate parameters) and whether such a proposal would require management of towed-demersal fishing gear within the 0-6 nautical mile area.	coherence of the Natura 2000 network and therefore this was ruled out as an option for providing appropriate compensation.	
Removal of disused anthropogenic infrastructure and litter In principle, Eastern IFCA would be supportive of the removal of disused anthropogenic infrastructure and litter. However, more information would be needed	The Applicant welcomes the Eastern IFCA's advice and potential support for this option, however, as previously stated [REP7-027] there is no certainty in locating enough disused anthropogenic infrastructure and litter within the HHW SAC to provide the correct	Noted

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to support a litter removal proposal. Considerations would need to include the extent of marine litter footprint, and the location of any disused anthropogenic infrastructure and litter. Eastern IFCA advise that we are not aware of any specific 'hotspots' for lost fishing gear in the area, and that we do not know how likely it is that these occur considering the low level of fishing activity in the inshore area. We advise discussing options with the fishing industry, Natural England and NGOs.	level of compensation. The Applicant notes that the Eastern IFCA are not aware of any 'hot spot' areas which could be targeted for removal of fishing gear and this information is included within the document [REP7-028]. The Applicant has consulted with Natural England (as well as the Eastern IFCA) on this option and it has been ruled out due to uncertainties associated with the practicality of finding and removing infrastructure and litter.	
Fisheries management – reduction of intrusive fishing methods Eastern IFCA do not consider it equitable to penalise inshore fishery stakeholders (by introducing additional spatial closures) for environmental damage caused by the offshore renewables industry. Eastern IFCA will not support compensatory measures that increase restrictions on fishing activities, particularly where those activities have been assessed and found to be compatible with conservation objectives for the designated site. Fisheries are already subject to assessment under the Habitats Regulations, and measures have been put in place (or are in development) to ensure fisheries do not have an adverse effect on designated sites. Once in force, Eastern IFCA's Marine Protected Areas Byelaw 2019 will close areas within the HHW SAC agreed with Natural	The Applicant notes that the Eastern IFCA does not support this option. The Applicant ruled this option out due to uncertainties on what mechanism could be used to deliver such measures [REP7-027].	It is noted that the Applicant has ruled out this option due to uncertainties on delivery rather than on principle. Eastern IFCA maintains the position presented at submission D10 – as set out in column one of this document.

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England as requiring closure to towed-demersal fishing to protect Annex 1 reef. Further work will be undertaken by Eastern IFCA to assess the impact of fishing on the sandbanks features within 0-6nm; however, at this stage additional closures are considered neither necessary nor proportionate to risk of damage from fishing. Should evidence for additional areas of Sabellaria reef come to light through additional surveys, it would be standard practice under Article 9(1) of The Conservation of Habitats and Species Regulations 2017 (as a function of Part 6 of the Marine and Coastal Access Act 2009) for Eastern IFCA to introduce additional spatial restrictions to protect these from towed-demersal fishing.		
Eastern IFCA's comments on the proposal that Hammond and Winterton Special Area of Co		
4.1.1. The network of MPAs in English waters was completed with the designation of the third tranche of Marine Conservation Zones (MCZs) in 2016. These complement the Natura 2000 network of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) to form the English "Blue Belt". 4.1.2. Over 96% of the Eastern IFCA district (0-6nm coastal waters between the Humber and Harwich) has been designated as a MPA (Figure 1).	Noted, the Applicant is aware of this information and it would be duly considered in the final proposals should they be required.	Noted

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4.1.3. Fisheries regulators are responsible for assessing the impacts of licensed fishing activities on MPAs and managing these activities to support the conservation objectives of these sites. The relevant bodies are IFCAs within inshore waters (0-6nm), the Marine Management Organisation (MMO) and Defra (6-200nm).		
4.1.4. HHW SAC lies partly in inshore waters but mostly beyond 6nm. Eastern IFCA has agreed to exclude towed demersal fishing from areas of the most sensitive habitat, biogenic reef: Sabellaria within the 0-6nm section of the site under the MPA Byelaw 2019 (Figure 2). MMO has done the same where the feature occurs in the 0-12nm section of the site. Defra has presented management proposals to prohibit towed demersal fishing from the majority of the SAC beyond 6nm, to protect Sabellaria reef and the other designated feature for this site, subtidal sandbanks		
4.1.5. Eastern IFCA's Byelaw 3 (applicable across the entire 0-6nm area) prohibits fishing for molluscs via any method other than hand working throughout the Eastern IFCA district without prior permission from the Authority; this protects seabed habitats from impacts from dredges. In addition, Byelaw 12 prohibits trawling within 0-3nm by vessels greater than 15.24m; this further protects seabed habitats by limiting the size (and by		

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extension, weight) of fishing gear that can be used. Furthermore, Eastern IFCA's whelk permit byelaw limits the number of whelk pots that can be used from vessels fishing in the 0-6nm area: although designed as a stock sustainability measure, an additional outcome is a limit on the level of interaction between whelk pots and seabed habitats. 4.2.1. Ecological benefits, if the SAC extension designation is agreed, could include a local increase in abundance and diversity of species within the extension area, if – in order to meet the conservation objectives of the site – anthropogenic activities are restricted. If it is assessed that there is no requirement to restrict anthropogenic activities within the extension area, then no change to the abundance or diversity of species within the extension area would be expected. Given the very low level of fishing in the extension area (see 4.3.5) it is unlikely that fisheries management would be needed, beyond protection of very small reef areas.	Should the site be extended, the area would be managed to prevent any future pressures that would reduce abundance and diversity of species and most importantly damage Annex I habitats. This may include future increases in fishing pressure and also future projects and plans. As noted by the Applicant in it position paper on the HHW SAC [REP5-057] there is currently very low fishing effort within the Eastern IFCAs proposed fisheries byelaw area (Area 36) which is being proposed in order to protect a priority area of Annex I reef. The Applicant would therefore consider that an extension to the HHW SAC to include further Annex I reef would be implemented with similar aims to that of the Eastern IFCAs current proposals, which are also to designate areas (albeit with specific fisheries management measures) to protect Annex I reef from future pressures.	While Eastern IFCA appreciate that appropriate spatial closures in an extended SAC would protect against future pressures in the area (as is intended with Area 36), Eastern IFCA do not consider that maintaining the status quo by protecting against a future, unanticipated gear-feature interaction provides guaranteed compensation for damage within the existing SAC.
4.2.2. Eastern IFCA understand that the 10:1 ratio proposed for compensation is based on the experience of the Maasvlakte 2 project. However, we would highlight that the decision	As outlined above in the second row of this table, the Figures presented in the document are in principle only and are based on the current worst case scenario. These are likely	Eastern IFCA would like to emphasize again that to select an appropriate compensation measure, final ratios should be based on case specific calculations relevant to the

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to take a 10:1 ratio forward was case- specific, based on calculations that found within the Voordelta European Marine Site removing the use of beam trawls could result in an increase in habitat quality of 10%. Therefore, it was considered appropriate for beam trawling to be removed from an area 10 times that of the area to be lost. 4.2.3. Eastern IFCA do not consider that this	to be reduced as further detail on the design of the export cable route becomes available and survey data identifies the location and extent of Annex I habitats along the route. The ratios used in any final case would be agreed with relevant stakeholders post consent as part of the scheme to be submitted for the Secretary of State's approval.	expected damage and reduction in habitat quality.
ratio can be taken directly from one project and applied to another. For the Norfolk Vanguard and Norfolk Boreas projects, further case specific considerations and calculations are required to select an appropriate compensation ratio. The ratio chosen should be calculated based on the specific in-principle measures proposed, the required compensatory outcome, the type and intensity of ongoing activities within HHW SAC (or within any proposed extension), and the best available evidence on the conservation benefits any in-principle measures would have.		
4.2.4. The Applicant has proposed a 120km² area for consideration for extension of HHW SAC to compensate for potential loss of, and or damage to, areas of designated habitat within the existing SAC. Under the Applicant's worst-case scenario that the predicted potential area affected is 0.03km² for Norfolk Boreas alone (including 0.03km² of sandbanks and 0.02km² of Sabellaria	The Applicant notes the Eastern IFCAs concerns regarding the overcompensation of the in principle measures. The 120km² area shown in Figure 4.4 of the document was an indicative extension provided to illustrate that there are large areas within which a potential extension could be designated which would adequately compensate for any effects on the existing HHW SAC. During consultation with	Thank you for the clarification on this matter. In all documents that consider a HHW SAC extension, Eastern IFCA consider it important to distinguish between the size of extension required to compensate for potential loss of, and/or damage to, areas of designated habitat within the existing SAC, compared to the size of extension proposed for any other

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reef), the area being considered for extension is 4,000 times greater than the worst-case scenario affected area. Eastern IFCA considers this proposed mitigation is not proportionate. Potential ecological benefits must be considered against potential socioeconomic impacts.

Natural England and the MMO it was decided that benefit in extending the HHW SAC by the small area shown in Figure 4.1 and Figure 4.2 of the document would not be proportionate to the investment (effort, funding and time) involved. Therefore, it would be more efficient to secure a larger extension. However, as set out above the precise area and element of overcompensation required would be agreed post consent once it is determined that compensation is required, and the basis on which this is required is known. The final area proposed for extension would be relative to the area affected, as determined by the SoS.

purpose (e.g. cost efficiency, strategic-level drive, etc.).

We would re-iterate that potential ecological benefits must be considered against socio-economic impacts – including impacts to inshore fishery stakeholders and fisheries regulators.

4.3. Socioeconomic impacts of designation

4.3.1. The area to be considered for extension to HHW SAC lies entirely within 0-6nm waters. As such, the relevant fisheries regulator (in relation to MPA assessment and management) would be Eastern IFCA. If the extension is designated, Eastern IFCA would be required to scrutinise feature evidence. assess the impacts of licensed fishing on site features, identify appropriate management (if needed) to ensure fisheries do not hinder achievement of conservation objectives, evaluate the impacts to fisheries, engage with stakeholders, and undertake formal consultation and legal checks to support submission of a byelaw for Defra sign-off. If measures are agreed, further action would include monitoring of fishing activity,

The Applicant understands that an extension to the HHW SAC such as the indicative one illustrated in Figure 4.4 may increase the scale of Eastern IFCA's duties and would be willing to discuss appropriate levels of support once the scale of extension was agreed.

As stated in the document an advantage of this compensation measure is that, once designated, management of the extension could be aligned with the existing management of the HHW SAC; providing long term efficiency. It may be appropriate to provide funding for a proportion of the Common Standards Monitoring and/or initiatives to achieve favourable condition, proportionate to the size of area of habitat loss in comparison to the existing HHW SAC

In the event that these in-principle compensatory measures are carried forward, Eastern IFCA would welcome more detailed discussions around the workload involved and the nature and amount of support that would be required.

Management of fisheries to protect sandbank features has been presented by Defra for the offshore section of Haisborough, Hammond & Winterton SAC but this is subject to agreement with other Member States. Eastern IFCA's understanding is that agreement has not yet been attained. The proposal covers the majority of the offshore area of the SAC and would have significant socio-economic impacts if implemented, because of the high

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enforcement action for non-compliance with measures, and potentially monitoring of features to assess effectiveness of management. These are significant undertakings and Eastern IFCA would seek to recover associated costs from the Applicant (wind farm developer). Feature monitoring in the marine environment is expensive as it requires resource-intensive vessel based surveys. 4.3.2. If designated, it is highly likely that towed-demersal fishing must be prohibited in areas where the Annex I habitat biogenic reef: Sabellaria is found within the extension area. This is a relatively small area of the proposed extension area, but still significantly larger than the affected area. 4.3.3. It is possible, but uncertain at this stage, that towed-demersal fishing will also need to be restricted in areas where the designated habitat Sandbanks is found within the site. This is a much larger area of the proposed extension area and would be significantly larger than the existing fishery closure areas agreed by Eastern IFCA in HHW SAC (Figure 2).	area. Alternatively, the Applicant could extend the proposed post construction monitoring (outlined in the HHW SAC control document, document 8.20) to encompass the extension area. This would be considered as part of the details for the scheme to be approved by the SoS. The Applicant considers that the potential further restrictions mentioned by the Eastern IFCA would be similar to those being proposed within the existing HHW SAC. These are being proposed to protect top priority sites and not for all areas to be managed as Annex I reef (see Figure 4.4 of the document). The Applicant is currently unaware of any restrictions being proposed within the site to protect Sandbank features. As stated below, given the very low levels of damaging fishing methods that are currently practised within the indicative extension area, it is unlikely that fishing restrictions would be required that would limit the majority of current fishing practices, therefore the socioeconomic impacts of the in principle plan would be very minimal. It is anticipated that submission of the scheme for the SoS's approval would be supported by a socioeconomic assessment which would consider this further.	levels of demersal fishing in the offshore part of the SAC. It is not known at this stage whether management is required for demersal fishing to protect sandbanks in the inshore part of the SAC; this will be determined through the Habitats Regulations Assessment process.
4.3.4. If any new fisheries management is required as a result of a new MPA	The Applicant notes the Eastern IFCAs advice, but would like to clarify that the	Eastern IFCA maintain that while we recognise that there will be a delay to allow

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designation, an assessment of costs to fishery stakeholders would be required. There are currently understood to be very low levels of towed demersal fishing within the proposed extension area. However, for those fishery stakeholders affected, impacts must be considered within the context of existing constraints. This could include existing fisheries management restrictions on effort, gear types and spatial activity; and other spatial constraints because of vessel range, other licensed activities (e.g. aggregate extraction, wind farm construction and operation, cable laying), and target species distribution.	extended area proposed would not in itself automatically restrict existing activities. It should also be noted that fishing and aggregate extraction currently occurs within the existing HHW SAC.	time for assessment, any new fisheries management that could then arise as a result of the extension needs to be considered, including an assessment of the cost to impacted stakeholders. It should be remembered that it is the management of the extension, rather than the extension itself, that would compensate for any loss or damage of designated habitat within the existing SAC.
4.3.5. The area being considered for an extension to the SAC currently experiences only very low levels of fishing, principally recreational sea angling (rod and line) and commercial potting for whelks and crabs. Angling does not interact with sandbank or Sabellaria features and low-level potting has very limited interaction with them. There is also a single fisher, who operates a 14 m beam trawler to target shrimp in the inshore area for part of the year, as well as a small number of similarly-sized vessels that use the area very infrequently (approximately < 10 times a year), and at a very low level, targeting shrimp for personal consumption or to sell at small, local stalls.	The Applicant notes the Eastern IFCAs advice which would be considered fully if compensatory measures are required. Given that, as stated here, there is very little fishing within the indicative extension area that would be considered damaging to Annex I reef or Sandbanks; the single 14m beam trawler being the only example, it is unlikely that significant fishing restrictions would be required to protect the designated features from current activities. Any restriction imposed within the HHW SAC extension area would therefore be implemented to protect the designated features from future (not present) activity of pressure. This is analogous to the management measures which the Eastern IFCA has put forward within the existing site	With regards to your comments on the proposed compensatory measures in relation to FISH1, please see again our Deadline 10 submission for more details of the disproportionate impact even a small loss of fishing grounds can have on inshore fishers who typically work within a very limited range from launch sites. Inshore fishermen need to be able to diversify as opportunities change so the loss of available fishing grounds is of importance. Off the East Anglia coast, inshore fishers face considerable "squeeze" because of the high level of marine protected area measures and spatial restrictions from offshore activities including

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Demersal trawling at any intensity could damage reef feature (hence the trawling exclusion areas described above at Section 4.1.4) but at low levels is not likely to damage sandbanks. There is no dredging (fishing) within the proposed extension area – this activity would only be used to target molluscan shellfish and would require Eastern IFCA authorisation. 4.3.6. Vessel range is particularly important for these inshore fishers who typically work within a very limited range from launch sites. As outlined in Paragraph 4.4.5, many in this area are small, beach-launched vessels that can operate only within a few miles from base. Impacts of additional spatial restrictions on fishing activities are likely to be much greater for inshore fishing vessels. For this reason, Eastern IFCA would suggest that, if an extension to the HHW SAC is decided to be the best option for compensation for potential damage from Norfolk Boreas' activities, the extension is located much further offshore than the current proposed area. 4.3.7. Even so, costs to offshore fishers could be significant if further spatial closures result and must be fully considered before decisions are made about this proposal. Whether inshore or offshore, costs to fisheries resulting from any wind farm	such as Area 36 which is within the Norfolk Boreas offshore cable corridor (see the Applicant's clarification note on Optimising cable routeing through the HHW SAC [REP4-022]). The Applicant has taken into consideration the East Inshore and East Offshore Marine Plans when identifying the preferred compensatory measures and proposing the indicative extension and these would be considered further in any firm proposals, should they be required. With regard to Policy FISH1; given the very low levels of fishing that currently exist within the indicative extension area it highly unlikely that the any extension would "prevent fishing activities on, or access to, fishing grounds". With regard to Policy GOV3, the indicative extension area is relatively free of "other existing or authorised (but yet to be implemented) activities" (see Figures 18.1 to 18.3 of the ES, [APP-4.13 to 4.15]) and therefore, with careful management and appropriate consultation, as described below, the extension could be implemented whilst avoiding the displacement of such existing activities.	aggregate extraction and offshore wind development.

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compensatory measure should be met by the Applicant. Impacts of displacement of fishing effort into other areas would also need to be considered, as there could be indirect effects for these other areas. 4.3.8. Eastern IFCA would encourage consideration of East Marine Plan policies with regards to compensatory measures. 4.3.9. Policies that require consideration include Policy FISH1 and Policy GOV3. These policies outline that proposals should not prevent access to fishing grounds or prevent ongoing fishing activity, and that proposals should demonstrate that they will avoid displacement of existing activities. 4.3.10. Due consideration should also be given to Policy PS3. The impacts that extending HHW SAC would have on future opportunity for operation and expansion of ports and harbours in the region, in particular the ports of Great Yarmouth and Lowestoft, should be considered.	With regard to Policy PS3, the Applicant does not consider that the proposed extension of the HHW SAC would in anyway limit future opportunity for operation and expansion of ports and harbours in the region. The boundary of the indicative extension area as shown in Figure 4.4 provides significant distance between the offshore area that it would protect and the coast. Therefore, there is a buffer between the indicative extension area and any ports and harbours including Great Yarmouth. This boundary could be modified to provide a further distance in the final plans if this is required. Given the above the Applicant is of the firm opinion that indicative extension area as presented within REP7-027 would be fully compliant with the Eastern Inshore Marine Plan. The East Inshore and East Offshore Marine Plans would be given further consideration if and when the compensatory measures are developed further.	
4.4. Timescales for designation		
4.4.1. It has been suggested that the area covered by the SAC extension should be increased to compensate for being unable to designate the site extension prior to the construction of Norfolk Boreas. Eastern IFCA considers this approach is not appropriate, given that this would have disproportionate impacts on other plans and projects,	As stated above and in the derogation documents [REP7-028] Natural England have advised that oyster beds would not deliver coherence of the Natura 2000 network and therefore this was ruled out as an option for providing appropriate compensation. Furthermore, it has not been possible to identify sufficient marine litter or	Noted

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including inshore fisheries. If further compensation is required to make up for a longer time frame, we would urge the use of other, more quickly implemented conservation projects with similar environmental benefits until the proportionate extension area is designated. For example, it is likely that the use of oyster restoration projects or marine litter removal could be implemented much sooner than an SAC extension and could be used alongside a more proportionate extension to compensate for the time during which the extension is not written in law	anthropogenic infrastructure to provide realistic compensatory measures.	
4.4.2. Eastern IFCA would also like to clarify the realistic timeframes for the implementation for any fisheries management measures within an extended SAC. Once the SAC is extended, which is likely to take a number of years, Eastern IFCA would have a duty under the Marine and Coastal Access Act 2009 to assess the impacts of commercial fisheries on designated features in the extension area. This process, from initial assessment to regulations coming into force, typically takes at least two years at the very minimum (Figure 3).	As noted by the Applicant in the derogation case [REP7-028], classification as a pSAC would be sufficient to deliver compensation in the short term. Subsequent fisheries closures would then be considered if required once full designation has been completed.	Noted
4.5. Engagement		
4.5.1. It is important that regulators including Eastern IFCA, MMO, and Defra are involved in discussions relating to wind farm compensatory measures that could affect	The Applicant notes the Eastern IFCA's comments regarding engagement, and should compensatory measures be required, the Applicant is willing to engage with Eastern	Eastern IFCA recognise the time pressures that have been associated with the derogation case for this particular Examination and appreciate the

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fisheries. We do not consider that, to date, that the Applicant has kept us sufficiently informed of proposals. As we are registered as an Interested Party for the Norfolk Boreas planning examination, we have been able to access documents relating to the proposed extension to the SAC, but we had not been informed by the Applicant of the current proposal, nor asked to provide fisheries and conservation advice, despite previous discussions regarding inshore fisheries and conservation. There is also a role for regulators and statutory conservation advisors to engage earlier in the process – if necessary, within constraints of commercial confidentiality.	IFCA prior to submission of any scheme to the Secretary of State. To date, the focus has been to consult Natural England as the Statutory Nature Conservation Body and the MMO, as the overall regulator, to reach inprinciple agreement on the most appropriate compensatory measure to be taken forward (if required). A summary of the consultation which was undertaken jointly by the Applicant and Norfolk Vanguard Limited is provided in Appendix 4 of the derogation case [REP7-028]. The derogation case, including in-principle compensatory measures, was submitted to the Examination on 31 March 2020. Given the compressed timeframes within the Examination it was not possible to conduct a full consultation with all interested parties, however as stated above the Applicant would undertake further consultation in developing any scheme required for compensatory measures prior to its submission to the Secretary of State for approval.	commitment to engage with us on proposed compensatory measures prior to the submission of any scheme to the Secretary of State.
4.5.2. Furthermore, Eastern IFCA considers that fishers, fishing industry representatives and other marine stakeholders should be provided an opportunity to be involved in discussions about potential compensatory measures at an early stage. We have not been aware of discussions between the applicant and fisheries stakeholders (e.g. the National Federation of Fishermen's	As set out above, should derogation be required, and the approved method of compensatory measures be an extension to the HHW SAC, the Applicant would undertake further consultation in developing the scheme prior to its submission to the Secretary of State for approval.	Noted

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Organisation and/or smaller local fishing associations) about the proposed extension to the HHW SAC. Although these stakeholders would be able to engage in the development of fisheries management measures required as a result of designation, we argue that they should have a say in designation itself, before planning decisions are taken. Many such stakeholders are not well equipped to engage via the formal planning process; we argue that there is a duty for applicants to demonstrate they have engaged with relevant stakeholders at all appropriate stages of project development.		
4.6. National policy		
4.6.1. Eastern IFCA considers there is a need for direction from Government in relation to offshore wind farm compensatory measures and potential impacts for other sectors including fisheries. The growth of the offshore renewable energy sector and of the coverage of MPAs means there is likely to be a growing number of other cases where compensatory measures require consideration. Eastern IFCA holds the view that imposing further restrictions on inshore fisheries – already becoming increasingly restricted because of MPA requirements – in order to compensate for damage to MPAs by the offshore wind sector is inequitable and fundamentally wrong	Noted.	Eastern IFCA seek to reiterate the comment made at D10 highlights a need for direction from Government in relation to offshore wind farm compensatory measures and potential impacts for other sectors including fisheries.

4.6.2. It is critical to be aware that the	Noted. However, as outlined previously in the	
proposals and decisions made on these projects (Norfolk Vanguard and Norfolk Boreas) will set a precedent for future offshore wind projects that are unable to reach a conclusion of no adverse effect on site integrity. While we understand that all activities and compensatory measures will be considered on a case-by case basis, Eastern IFCA are keen to discourage setting a precedent of compensating for one commercial activity (offshore wind generation) by negatively impacting on another (the inshore fishing industry).	summary of fishing activity by the EIFCA, the majority of fishing in the indicative extension area, is low level and is non-intrusive. Therefore, it is unlikely to be excluded from any scheme put forward as a compensatory measure. Furthermore, as listed in response to 4.3.8-4.3.10, the Applicant considers that any such scheme would be compliant with relevant policy. Therefore, the compensation proposed (if required) will have minimal, if any, negative effects on the fishing industry and therefore will set no precedent in that regard.	Noted
As outlined 4.6.3. The Applicant has stated that Natural England are supportive of a proposed extension to the SAC, however the area being considered for an extension is far above and beyond the compensation required to offset the environmental impact of this project. Eastern IFCA consider that the in-principle compensatory measures set out at this stage need to be clear on how the Applicant would compensate for the damage caused by their project. If this large extension is being proposed to meet a need at a more strategic level outside the scope of this single project, then we consider this should be done in an open and transparent manner outside of the examination of this project. 4.7. Conclusions and proposals	As stated above the final area proposed for extension would be relative to the area affected, as determined by the SoS.	Noted

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- 4.7.1. Eastern IFCA consider that insufficient information has been provided to the Secretary of State to make an informed judgement about the impacts of SAC extension on marine ecology and sea users.
- 4.7.2. Eastern IFCA consider it inequitable to compensate for damage caused by the offshore wind industry by negatively impacting on inshore fishery stakeholders (notwithstanding the magnitude of those impacts), whether this is indirectly via an extension to HHW SAC or via direct fisheries regulation.
- 4.7.3. Eastern IFCA request that the Secretary of State takes into consideration the socioeconomic implications of a SAC extension on small-scale inshore fishers and directs the Applicant to present supporting information and demonstrate appropriate engagement with potentially affected stakeholders.
- 4.7.4. Eastern IFCA request that details of alternative areas that were considered for the proposed extension to HHW SAC are made available, alongside the information on why this site was selected and what rationale was applied for rejecting those sites. For example, were areas supporting proposed or licensed wind farm cable routes or aggregate extraction areas discounted as being suitable because of these activities? This will help understand the criteria used for selecting the

As stated above, it is not possible to provide firm proposals on compensatory measures until the Appropriate Assessment has been completed and there has been a determination on the extent of the compensation required, if indeed this is required at all. Therefore, the Applicant has presented in principle compensatory measures, which would be developed further should the SoS determine that these are required. The Applicant considers that an extension to the HHW SAC would not adversely impact on the fishing industry. Fishing is not prohibited across much of the existing HHW SAC and where restrictions are being proposed, this is only for the most damaging fishing methods. Therefore, any extension, if properly managed, could be designated in such a way as to, maximise the potential for increased biodiversity and possibly fish stocks whilst minimising any negative impacts to the fishing industry.

The indicative area presented is based on data provided by Natural England and the JNCC showing areas of Annex I Sandbank and potential areas of *S.spinulosa* reef (see Figure 4.4 of REP7-027], which are the two features of the HHW SAC for which compensation may be required. The only area where Annex I Sandbanks extend outside of the HHW SAC is within the indicative extension area.

Noted.

Eastern IFCA appreciate the comments provided by the Applicant. However, we maintain the view that, as only in-principle compensatory measures have been presented, full effects on ecology and sea users cannot be ascertained.

We acknowledge that because of low levels of towed demersal fishing in the inshore area, an extension to the HHW SAC in this location is not likely to have a large impact on the fishing industry – but we maintain that even a relatively small impact on inshore fishery stakeholders is inequitable if it results from another sector's activities affecting SAC integrity.

Eastern IFCA would also re-iterate that maximising the benefits of SAC extension would be linked to the introduction of measures restricting fishing, since it is the management of activities within the SAC rather than designation itself that achieves ecological benefits.

Furthermore, we repeat the request that the Applicant presents supporting information and demonstrates appropriate engagement with potentially affected stakeholders.

We appreciate the explanation as to why the extension to the west was considered the best option, in relation to feature extent,

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area proposed to be considered for an extension, and whether some socio-economic criteria were weighted more heavily than others. 4.7.5. If an extension to HHW SAC is carried forward as a compensatory measure, Eastern IFCA would consider it far more appropriate to use a proportionate ratio calculated by the Applicant with site-specific rationale (such as the 10:1 ratio put forward in the Maasvlakte 2 project). If further compensation is required because of the slow timeframes in which an extension could be implemented, we would recommend the use of a combination of a proportionate extension and an alternative, more easily implemented compensation project (e.g. habitat restoration projects, marine litter removal, etc.) agreed in consultation with relevant bodies and Interested Parties.	During the identification of the indicative site extension it was determined that the most efficient method for providing compensatory habitat would be to extend the existing HHW SAC as this would be the most likely way of compensating for the equivalent habitats that would be affected (i.e. environmental conditions would be more similar than if a site or extension was selected in a different area of sea). Extensions to the north were ruled out as the North Norfolk and Saturn Reefs SAC has already been designated in that location. Extensions to the south were ruled out due to the extensive aggregate extraction that occurs in this area which has removed Annex I habitat. Therefore, extensions could only occur in an easterly or westerly direction. As stated by the Eastern IFCA, fishing effort within the indicative extension which is to the west is relatively low, whereas to the east of the site fishing effort is much higher (see Appendices of the Applicant's response to Deadline 9 submissions and other submissions [REP10-033]). Therefore the extension to the west would have far less impact on the fishing industry (especially given that the majority of fishing here is non-intrusive and would be compatible with the conservation objectives of the site), and as stated above Annex I Sandbank and Annex I	lack of aggregate activity and low level of fishing activity. Finally, Eastern IFCA appreciate the Applicant's commitment to consider Eastern IFCA's points relating to size and ratios of any extension area, in consultation with relevant stakeholders.

reef has already been identified in this area.

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	Therefore an extension to the west was considered the most appropriate option.	
	The Applicant notes the Eastern IFCA's concerns regarding the size of any extension and the ratios used to calculate this and these will be taken into consideration if the proposals are developed further, in consultation with relevant stakeholders.	