THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Rampion Two Offshore Wind Farm

Appendix E6 to the Natural England Deadline 6 Submission

Natural England's Advice on Fish and Shellfish

For:

The construction and operation of the Rampion 2 Offshore Windfarm located approximately 13km off the Sussex coast in the English Channel.

Planning Inspectorate Reference EN010117

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01 August 2024

Appendix E6 – Natural England's advice on Fish and Shellfish

In formulating these comments, the following documents have been considered:

- [REP5-027 & REP5-028] - 6.2.8 Environmental Statement Fish and Shellfish Ecology (tracked & clean)
- [REP5-046 & REP5-047] - 6.4.11.3 Environmental Statement Underwater noise assessment (tracked & clean)
- [REP5-082 & REP5-083] - 7.17 In Principle Sensitive Features Mitigation Plan Rev E (tracked & clean)
- [REP5-109 & REP5-109] - 8.54.1 Applicant's Response to ExAs First Written Questions - Fish and Shellfish (tracked & clean)
- [REP5-119] - 8.81 Applicant's Responses to Examining Authority's Second Written Questions (ExQ2)
- [REP5-086 & REP5-087] 7.22 Commitments Register (clean &tracked)
- Category 8: Examination Documents: Underwater Noise Impact Contours Relative to the Selsey Bill and the Hounds MCZ. Date: July 2024 Revision A (received from the Applicant on the 26 July 2024).

1. Summary

Natural England submitted detailed advice on fish and shellfish at Deadline 5 (Appendix E5 [REP5-139]). We note that no substantial new information in relation to this topic has been submitted into the examination by the Applicant at Deadline 5. Therefore, our Deadline 5 response remains our current position, unless we have explicitly stated otherwise below. It should be acknowledged that many of the concerns raised in our relevant representations and throughout the examination process remain unresolved.

2. Main Comments

2.1 Underwater Noise Modelling of the Worst-Case Scenario (WCS)

Natural England has confirmed with the Applicant that the WCS for simultaneous/sequential piling is up to 4 monopiles per 24h (2 locations, 2 monopiles each) and 8 pin piles per 24h (2 locations, one multi-leg foundation each). We note that this equates to 9 hours of piling at each monopile location and 18 hours of piling at each muti leg foundation location within 24 hours. We advise that provided these scenarios are clearly modelled, labelled and assessed across all figures and documents, this aspect of the issue can be resolved.

Despite this, we remain concerned about whether the modelling at the east and west locations represents the worst-case spatial overlap with Kingmere Marine Conservation Zone (MCZ) in a simultaneous piling scenario. Our concerns also remain that the location of the single north-west modelling point used in the assessment of underwater noise impacts on black seabream does not represent the location closest to Kingmere MCZ. Natural England provided detailed comments on this in our Deadline 5 Appendix E5 response [REP-139]. We advise that both of these outstanding points could be resolved by modelling these scenarios and including them in the assessment. Additionally, we advise that should the full piling restriction (March to July inclusive) be implemented then these reaming concerns about the modelling would be addressed because no impacts on Black seabream during the sensitive season would be realised.

2.2 Worst Case Scenario Modelling location in relation to Selsey Bill and the Hounds MCZ

Natural England received further information (26/07/2024) from the Applicant in relation to the west underwater noise modelling location which has been used for the assessment of underwater noise impacts on short-snouted seahorse within Selsey Bill and the Hounds MCZ.

Having reviewed this further information, Natural England has the following comments:

- We welcome the modelling of the additional location in closer proximity to Selsey Bill and the Hounds MCZ. We note that the Applicant has confirmed that *'the piling location on the western boundary (Location 2 on **Figure 1** to **Figure 6**) of the Order Limits was identified as the worst-case location on account of the bathymetry of the site (the modelled location lies in an area of deeper water). Any location inshore of this modelling location, lies in shallower water depths, where underwater noise propagation and therefore the range of impact is reduced'.* We note that the bathymetry should be a consideration within the modelling parameters. Based on the modelling in this document there appears to be some directions that Location 3 appears to result in a more extensive noise propagation towards Selsey Bill and the Hounds MCZ, and some where the Location 2 does. Therefore, we advise that the inclusion of both modelling locations is of value.
- Based on their sensitivity, Natural England do not consider that 141dB is an appropriately precautionary threshold for seahorse, we have therefore focused on the modelling for 135dB (see Appendix E5 of our Deadline 5 [REP5-139] response for further explanation).
- We advise that Figures 5 and 6 provide evidence to address our concerns regarding the modelling location and impacts for Temporary Threshold Shift (TTS). Based on this we are content that TTS impacts from underwater noise on short-snouted seahorses will not be realised within Selsey Bill and the Hounds MCZ**.**
- We note that Figures 3 and 4 are unclear, as the high-level view appears to show overlap with the site at 135dB in both the unmitigated monopile and potentially the multileg scenario (in accordance with Figure 5.5 and Figure 5.6 [REP4-062] submitted at Deadline 4), however the zoomed in insert map does not. Provided the insert is correct then it appears that behavioural impacts from underwater noise on short-snouted seahorses will not be realised within Selsey Bill and the Hounds MCZ. However, we advise that clarity is gained from the Applicant to ensure that the insert is correct.
- We advise that the close proximity of the overlap of the 135dB contour with Sesley Bill and the Hounds MCZ, highlights the importance of the commitment to year-round use of double big bubble curtains (DBBC) to achieve a noise reduction in the region of 15dB for piling operations

3. Detailed Comments

Table 1 Summary of Key Issues. Document Reviewed - [REP5-027 & REP5-028] - 6.2.8 Environmental Statement Fish and Shellfish Ecology (tracked & clean)

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve the issue
1	8.7	87	Table 8-12	We note that the maximum spatial design scenario (monopiles) has been updated to *'Piling of 65 larger monopile WTG foundations (13.5m diameter)*', instead of *'Piling of 90 smaller monopile WTG foundations (13.5m diameter)'*. The piling duration has also been increased from 4 to 4.5 hours (in 24 hours) for monopiles and 4 to 4.5 hours piling per pin pile for multileg foundations.	Natural England advises it should be clear in the text that piling is up to 4 monopiles per 24h (2 locations, 2 monopiles at each). This equates to up to 9hrs of piling at each location (see page 27 [REP5-047]). It should also be made clear that 8 pin piles per 24h (2 locations, one multi-leg foundation each). This equates to 18 hours of piling at each location (see page 27 [REP5-047]). We advise that provided these scenarios are clearly modelled, labelled and assessed across all figures and documents, this aspect of the issue can be resolved.
2	8.7	87	Table 8-12	Footnote 3 has been added but does not seem to relate to the Table heading.	Natural England advises it is not clear what the footnote relates to.
3	8.7	94	Table 8-12	The maximum rock protection area for interconnector cables has been changed from being based on *'20% of 10km cable requiring protection'* to *'20% of 40km'*	We advise that clarity is required on which figure is correct and that a consistent figure needs to be

Point number	Location within Submitted Document			Natural England Response	
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				to address comment E7 in our risks and issues log. The final figure has not changed from 122,000m^2. We note that the Applicant's Response to Deadline 4 Submissions suggest this has no effect on the outcome of the assessment. However, we seek final clarity that the 122,000m^2 is correct. Additionally, the length still remains 10km in the Benthic Ecology Chapter [REP5-029 & REP5-030].	stated and assessed across all documents and for all receptors. Natural England would expect a clear and consistent figure, that is within what has been assessed, to be presented in all the final post-consent plans which relate to scour protection.
4	8.9	134	8.9.49	We note the removal of text stating *'although it is likely that potential predators will also vacate the area during potential piling thus limiting this potential effect'*.	Natural England support the removal of this text.
5	8.9	163	8.9.226	We note that it is stated that *'The mitigation is to employ at least one noise abatement mitigation, during the summer breeding season of seahorse, which will reduce the impact ranges of TTS to outside of the MCZ'.*	We refer you to our advice in the main comments above and our Deadline 5 advice on fish and shellfish. We advise that in relation to impacts on short snouted seahorses within MCZ's, evidencing that a noise reduction of approximately 15db can be achieved by noise abatement measures (NAS) will need to be a key component of post consent plans, such as the Sensitive features Mitigation Plan and the Offshore Monitoring Plan.

Table 2 Summary of Key Issues Document Reviewed - [REP5-046 & REP5-046] - 6.4.11.3 Environmental Statement Underwater noise assessment (tracked & clean)

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve the issue
6	2.2.1.2	15	N/A	The Applicant has stated that *'as a worst case the stationary modelling results for fish should be considered in the first instance'*.	Natural England continue to advise that we do not support anything other than a stationary receptor being used for fish in the assessment.
7	3.2.2.1	30	Table 3.6 and 3.7	Table 3-6 and 3-7 - We note that the diameter of the monopile modelled has been amended from 12m to 13.5m, but that this has not led to a change in any of the source level figures used.	Natural England seeks clarity on whether the source level figures (and thus subsequent modelling results) require updating following the increased pile diameter or whether this was a typographic error in this table. If it is a typographic error, then this issue can be considered resolved.
8	3.2.2.1	30	Table 3.6 and 3.7	Table 3-6 and 3-7 state the jacket diameter for the worst-case and most likely scenarios is 3m, whereas section '*3.2.2 impact piling parameters'* states that worst case and most likely diameter for jacket foundations is 4.5m. We understand that 4.5m is correct.	Natural England seeks confirmation that a jacket diameter of 4.5m has been modelled. If this is the case, then this issue can be considered resolved.
9	4.3	75	N/A	As outlined in section 4.3: *'modelling has been carried out for simultaneous piling at both the E and W modelling locations, representing a worst-case spatial spread of locations. The worst case includes two monopiles or four pin piles installed*	We refer you to our Deadline 5 advice on fish and shellfish. We note that the modelling assumes two piling operations at

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				sequentially at each location. All modelling in this section assumes that the two piling operations start at the same time'. The question that Natural England have been seeking clarity on since our relevant representation is whether this represents the worst-case scenario spatially for each of the MCZ's under consideration for fish species (black seabream and short-snouted seahorses)	once. We advise that it should be clear in the maximum assessment assumption in Chapter 8 and secured in the DCO that it is limited to two locations at one time. See also response to point 1 above.

Table 3 Summary of Key Issues Document Reviewed [REP5-082 & REP5-083] - 7.17 In Principle Sensitive Features Mitigation Plan Rev E (tracked & clean)

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve the issue
10	3.4	32	Table 3.2	It is stated in relation to *'Indicative milestones for refinement and agreement of the In Principle Sensitive Features Mitigation Plan'* that this is '*currently in progress (during Examination)*'. Natural England highlights that there are still some significant areas of disagreement over the contents on the plan.	Aspects of this plan remain unresolved. We refer you to our advice since relevant representations, particularly our Deadline 5 Appendix E5 advice.

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve the issue
11	5	36	N/A	C-273 – Natural England notes the updated text on this commitment. We refer you to our comments in our D5 response on the Commitments Register.	We refer you to our Deadline 5 advice on fish and shellfish. We advise that the definition of emergency remains an unresolved point.
12	5.3	54	5.3.33-5.3.34	Natural England do not agree with the updated text in paragraph 5.3.34, or the statement that *'the results support the setting of a baseline against which an exceedance-based threshold can be taken forward.'* We advise that piling would represent a notable increase from baseline conditions during the black bream breeding season and therefore this supports our position that the threshold approach proposed is not suitable.	We refer you to Deadline 1, Appendix E1 - Natural England's Comments on Appendix 8.4: Black Seabream Underwater Noise Technical Note and Survey Results - Revision A [PEPD-023]. It remains Natural England's position that there is not a suitable species-specific threshold in relation to behavioural disturbance of black seabream within Kingmere MCZ.

Table 4 Summary of Key Issues Document Reviewed [REP5-109 & REP5-109] - 8.54.1 Applicant's Response to ExAs First Written Questions - Fish and Shellfish (tracked & clean)

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve the issue
13	1.2	4/5	1.2.2	Natural England note that a 20dB reduction in noise has been modelled. However, based on the evidence provided in *'Information to support efficacy of noise mitigation abatement techniques with respect to site conditions at Rampion 2 Offshore Windfarm document [REP4-067]',* we advise that there is not sufficient evidence to support the 20dB reduction using combined noise mitigation measures. Furthermore, we advise that [REP4-067] does not give sufficient assurance that a DBBC as a single noise mitigation measure will be able to achieve the 15dB reduction proposed in all piling locations within the array.	This issue remains unresolved and we advise monitoring of NAS will be required. This will be a key component of post consent plans, such as the Sensitive Features Mitigation Plan and the Offshore Monitoring Plan. We refer you to our Deadline 5 advice on fish and shellfish.
14	2.2	7	2.2.7	Several noise mitigation scenarios have been listed. Please see our Deadline 5 response on noise mitigation measures.	See point 13. We refer you to our Deadline 5 advice on fish and shellfish.
15	2.3	13/14	2.3.4 and 2.3.6	Natural England provided advice on the proposed thresholds, noise mitigation measures and zoned approach to piling in our Deadline 5 response.	We refer you to our Deadline 5 advice on fish and shellfish.
16	2.3	14	2.3.7	C-265 – please refer to our comments in our D5 response on the Commitments Register.	We refer you to our Deadline 5 advice on fish and shellfish and point 13 above.

Table 5 Summary of Key Issues Document Reviewed [REP5-119] - 8.81 Applicant's Responses to Examining Authority's Second Written Questions (ExQ2) – Fish and Shellfish

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve the issue
17	Table 2-16	67	FS2.1	Natural England does not agree with the evidence base used by the Applicant with regards to black seabream and has provided detailed comments throughout the evidence plan process, in our relevant representations and throughout the examination on the aspects set out in FS2.1.	We refer you to our detailed advice provided throughout the process on black seabream. Natural England's advice is that the only way to resolve the outstanding issues in relation to black seabream as a feature of Kingmere MCZ is a full seasonal piling restriction (March-July inclusive).
18	Table 2-16	72	FS2.7	It is stated *'When the layout and pilling campaigns are finalised the Applicant will have to balance the attendant levels of risks, which as noted are substantially greater at 135 dB than at 141 dB. It is possible that enforcing a threshold of a 135dB threshold might impose a de facto piling ban, the consequences of which have been discussed in FS2.1.'* Natural England advises that the worst-case scenario for the layout and piling campaign as well as efficacy of noise mitigation measures should have been modelled and implications understood, and therefore it is unclear why it appears to be being suggested that a case worse than this could occur. We refer to our	We refer you to our Deadline 5 advice on fish and shellfish. As in point 17 above, it remains Natural England's advice that the only measure that will prevent the conservation objectives being hindered is a full seasonal piling restriction from 01 March to 31 July inclusive.

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				Deadline 5 response which notes that even with a 15dB reduction, there is an overlap of the 135dB contour with Kingmere MCZ. It remains our advice that it is not possible to establish a threshold for black seabream below which behavioural impacts that could hinder the conservation objectives of the site would not occur.	
19	Table 2-16	72	FS2.9	It is stated that: *'Based on preliminary studies of possible layouts for the offshore wind farm the Applicant expects around 30% of the turbines locations to be in water depths of over 40 m. The majority of this 30% will be in the range of 40-50m and a few locations in the range of 50-55m. With the great majority, if not all, of the turbines located in depths less than 50 m, the Applicant is confident in the performance of the noise mitigation measure it has proposed.'* Natural England advises that whilst the percentage of the array in depths >40m will be known, the percentage of turbines in depths >40m is unlikely to be known until the final design. Natural England advise that unless the Applicant is committed to only piling in certain depths, the worst-case depth needs to be stated and assessed. We refer to our Deadline 5 response on information provided by the Applicant which stated depths of up to	Natural England advises that the worst case in terms of depth needs to be considered. We refer you to our Deadline 5 advice on fish and shellfish. We advise that in relation to impacts on short snouted seahorses within MCZ's, evidencing that a noise reduction of approximately 15dB can be achieved by noise abatement measures (NAS) will need to be a key component of post consent plans, such as the Sensitive features Mitigation Plan and the Offshore Monitoring Plan.

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				65m are present within the array area as well as key uncertainties in relation to noise mitigation measures in the environmental conditions at the Rampion 2 site.	