

Date: 28 February 2024
Our ref: Case: 15576 Consultation: 467663
Your ref: EN010117



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BY EMAIL ONLY

Dear Richard Allen,

Rampion 2 Offshore Wind Farm

The following constitutes Natural England's formal statutory response for Examination Deadline 1.

Deadline 1 Submissions

As stated in our rule 6 response of 16 January 2024, in the interests of early resolution of issues, Natural England combined our Relevant Representation and Written Representations which were submitted on 6 November 2023 [RR-265].

As outlined within our representation, we deferred further comments on the In-Principle Monitoring Plans (IPMP) [APP-240] and outlined our intention to submit a Risks and Issues Log at Deadline 1.

Natural England have submitted the following documents at Deadline 1:

- EN010117 467663 - Rampion 2 - Appendix L1 - Natural England's Comments on 7.18 Rampion 2 Offshore In-Principle Monitoring Plan [APP-240] – Deadline 1
- EN010117 467663 - Rampion 2 - Appendix M1 - Natural England's Risk and Issues Log Deadline
- EN010117 467663 – Rampion 2 - Appendix A1 - Natural England's Comments on the Schedule of Changes for the Draft Development Consent Order - Revision A [PEPD-011], Draft Development Consent Order – Revision B [PEPD-009/PEPD-010] and Alternative Schedule 17 – Revision A [PEPD-017]
- EN010117 467663 – Rampion 2 - Appendix E1 - Natural England's Comments on

1. Risk and Issues Log and Engagement through Examination

Natural England has submitted a Risk and Issues Log, which aims to track progress on the issues raised in our relevant/written representations. It is anticipated that the Risk and Issues Log will be updated and submitted alongside our submissions during examination at each deadline to reflect any progress in issue resolution during examination.

Natural England wishes to highlight that the focus of our engagement during Examination will be on reviewing relevant updated documents/outline plans submitted by the Applicant. We are unlikely to respond directly to commentary on our representations (including on the Risk and Issues Log) from the Applicant or Interested Parties, unless there is significant new material included, a misinterpretation of Natural England's position, or if the Examining Authority (ExA) questions direct us to do so. The Risk and Issues Log will be used to track issue progress and we will signpost to our advice where applicable. Likewise, if the Applicant wishes to provide a signposting document that directs us and the ExA to where they address our concerns with tracked changes in the various plans/documents/assessments then that would be welcomed.

2. Statement of Commonality for Statements of Common Ground (Statement of Commonality for SoCG)

Natural England note that as per the request of the ExA the Applicant has provided a Statement of Commonality for Statements of Common Ground. Natural England will submit our own Risk and Issues log to sit beside the Applicant's Statement of Commonality of SoCG. An updated Risk and Issues log will be provided at all Deadlines (1-6). This will include any relevant points regarding ongoing engagement with the Applicant. We hope this will be of assistance to the ExA in understanding Natural England's current outstanding issues and on demonstrating progress on issue resolution. We also hope that this will assist the Applicant in updating their Statement of Commonality of SoCGs at the relevant stages.

Natural England observes that the traffic light system proposed by the Applicant in the Statement of Commonality for SoCG is complex and unclear. Whilst we are not commenting on the rating given to specific thematic areas at this stage, we advise that because no issues with Natural England are coloured red or orange, this does not accurately represent the levels of risk and disagreement that still exist regarding key receptors, such as (but not limited to) impacts on seascape, landscape and visual impacts and the Kingmere Marine Conservation Zone. As Natural England has made clear with our own risk rating system within our Relevant Representations, there are a number of red and amber issues where significant disagreement exists. The Statement of Commonality for SoCG does not reflect this.

3. Examination Progress Tracker

We note that all issues have been categorised as Amber, which is defined as '*the issue is capable of resolution. The Applicant will look to progress this issue with relevant Interested Parties with a view to agreeing a resolution*'. We note that this document and the topics included do not fully reflect the advice in our Principal Areas of Disagreement Statements

(PADS) or Relevant Representations for some issues. For example, there are some topics where we have advised that unless fundamental changes are made, or mitigation commitments are made, it is highly unlikely that certain issues can be resolved.

We recommend this document is updated by the Applicant to more accurately reflect our comments to date. We consider that separate subsections for onshore and offshore ecology, grouped by thematic area, as well as landscape and seascape, would provide more clarity.

4. Cover Letter - Appendix 3: Errata

We note that the Applicant has provided a table relating to minor typographical errors and corrections in the DCO submission, which they suggest will require correction in the relevant document at some stage of the examination process. Whilst the Applicant has submitted some updated documents (as listed in Appendix 2) with tracked changes to show these errata, we understand that the Applicant will submit the rest of the updated documents at some point in the examination process. Natural England is not able to comment on whether these changes address any of our Relevant/Written Representation comments until we have had sight of the full set of updated documents with the tracked changes to review.

5. Section 245 (Protected Landscapes) of the Levelling Up and Regeneration Act 2023

Section 245 (Protected Landscapes) of the Levelling Up and Regeneration Act 2023 places a duty on relevant authorities in exercising or performing any functions in relation to, or so as to affect, land in a National Park, the Broads or an Area of Outstanding Natural Beauty (AONB) ("National Landscape") in England, to seek to further the statutory purposes of the area. The duty applies to local planning authorities and other decision makers in making planning decisions on development and infrastructure proposals, as well as to other public bodies and statutory undertakers.

It is anticipated that the government will provide guidance on how the duty should be applied in due course.

In the meantime, and without prejudicing that guidance, Natural England advises that:

- the duty to 'seek to further' is an active duty, not a passive one. Any relevant authority must take all reasonable steps to explore how the statutory purposes of the protected landscape (A National Park, the Broads, or an AONB) can be furthered;
- The new duty underlines the importance of avoiding harm to the statutory purposes of protected landscapes but also to seek to further the conservation and enhancement of a protected landscape. That goes beyond mitigation and like for like measures and replacement. A relevant authority must be able to demonstrate with reasoned evidence what measures can be taken to further the statutory purpose.
- The proposed measures to further the statutory purposes of a protected landscape, should explore what is possible in addition to avoiding and mitigating the effects of the development, and should be appropriate, proportionate to the type and scale of the development and its implications for the area and effectively secured. **Natural England's view is that the proposed measures should align with and help to deliver the aims and objectives of the designated landscape's statutory management plan. The relevant protected landscape team/body should be consulted.**

6. Terrestrial Ecology

With regards to the terrestrial documents received at the Pre-Exam Procedural Deadline, even with best endeavours, we apologise that we are unable to submit a response on the documents relating to this thematic area at this time. We will provide comments as soon as practicable to the Applicant and liaise with the Planning Inspectorate in relation to the potential for the ExA to allow a late submission prior to Deadline 2, recognising that waiting until Deadline 2 may not be beneficial to all parties. Again, we apologise for any inconvenience this may have caused.

For any queries relating to the content of this letter please contact me using the details provided below.

Yours sincerely

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THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

2010

Rampion Two Offshore Wind Farm

Appendix G1 to the Natural England's Deadline 1 Submission

**Natural England's Comments on 7.18 Rampion Offshore In-Principle Monitoring Plan
[APP-240]**

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

28th February 2023

Natural England's Comments on the Rampion 2 Offshore In-Principle Monitoring Plan (IPMP) [APP-240]

1) Introduction

1. Natural England welcomes the submission of the Rampion 2 Offshore In-Principle Monitoring Plan as part of the application. Further, we welcome the Applicant's inclusion of the general guiding principles for proposed monitoring (Section 2). We also refer the Applicant to Natural England's Best Practice Advice document which sets out our expectations in terms of monitoring. This document is available at: [Environmental considerations for offshore wind and cable projects - Phase IV Best Practice Advice for Post-Consent Monitoring, Version 1.0, July 2022.pdf](#). Relevant sections are also included in Annex A for reference.
2. This document outlines Natural England's overarching concerns with the Offshore IPMP [APP-240], particularly in relation to the overall aim of ensuring adaptive monitoring and remediation is secured within the Development Consent Order (DCO). In addition, this document provides further advice on each of the offshore nature conservation receptors: coastal processes, offshore and intertidal ornithology, benthic subtidal and intertidal ecology, fish and shellfish ecology, and marine mammals.

2) Overarching Concerns with the IPMP

3. Natural England advises that this is a live document which is updated throughout examination and post consent to reflect the outcome of discussions and/or monitoring. Therefore, because project design parameters and mitigation commitments are likely to be modified through the examination and pre-construction, we advise against the inclusion of Section 1 on the project description, as this could lead to issues around version control and inconsistencies developing between documents.
4. In recognition of the emphasis being placed by projects currently in the post consent phase on the IPMP when setting the monitoring requirements and parameters; Natural England highlights the importance of this outline document setting monitoring requirements. Natural England emphasises the requirement is to agree the scope of the IPMP and hypotheses which will be tested by the monitoring as part of the consenting phase and not be prescriptive on the type of monitoring and associated methodologies.

5. Overall, Natural England feels that much more detail is required than is provided in the IPMP in its current form. For example;

- What are the hypotheses the monitoring will be testing?
- How will the monitoring be designed to ensure that the desired outcomes can be achieved i.e. is the proposed monitoring fit for purpose?
- What are the indicative timings of the surveys?
- Can lessons be learnt from previous thematic surveys and how will modifications to survey design be incorporated between survey campaigns?
- What does 'success' look like to demonstrate that no further monitoring is required?
- What happens if the results do not support the null hypothesis? Is further monitoring required (with/without modifications)? If impacts are greater than predicted, do actions need to be undertaken to address these impacts? How will further monitoring and actions be secured, is a change to the wording of the deemed Marine Licence (dML) required? And if so, how will success of any action/s be monitored and what will be the success criteria before monitoring can cease?

To answer the above, Natural England considers the IPMP should focus on what the uncertainties and evidence gaps of the EIA and/or HRA are, rather than repeating the outcomes of the EIA only (Section 3). We consider that establishing and agreeing the uncertainties and evidence gaps of the EIA and/or the HRA is necessary to inform what monitoring should be undertaken.

6. As per the Applicant's 'Guiding Principles' (Section 2) Natural England advises an approach mechanism in which the Applicant presents a clearly defined hypothesis or null hypothesis of no impact would be beneficial. Monitoring thereafter would aim to test this. We advise a review period during which Statutory Nature Conservation Bodies (SNCBs) and regulatory bodies such as the Marine Management Organisation (MMO) are consulted by the Applicant to assess the results of the first period of monitoring. For example, one mechanism that could be introduced for particular receptors would be a live document which is reflective of what the monitoring is observing, including consideration of species/habitat recovery.

7. We advise that monitoring should be effective in providing sufficient evidence pre-construction to inform the deployment of mitigation measures, and similarly

demonstrate the efficacy of mitigation measures during construction and post-construction. This is important to demonstrate compliance with the measures identified in assessments and/or stipulated in the DCO/dML to mitigate significant impacts. It is also important to provide evidence to assess the significance of adverse effects, evaluate the success of mitigation measures and to help inform whether further remedial measures are required.

8. In relation to remedial measures, Natural England wishes to highlight the importance of ensuring that all relevant monitoring proposals for Rampion 2 (and/or associated DCO/dML conditions) consider the aim of securing a mechanism for **adaptive monitoring** when unforeseen impacts are detected. Thus, ensuring remedial measures (*i.e.*, **adaptive management**) are triggered should the results of monitoring demonstrate impacts that are significantly greater than predicted and/or incorrect assumptions were made following review of the conclusions of the environmental statement and supporting documents. Currently the Offshore IPMP [APP-240] has omitted this key consideration. We advise that the potential for certain monitoring to trigger the development of countermeasures (with associated monitoring of those measures) should be clearly stated in relevant tables of the IPMP and incorporated into the DCO conditions where relevant.

3) Nature conservation thematic advice

3.1 Engineering and design related monitoring

9. It is unclear to Natural England if this also encompasses monitoring surveys to inform final project design including those required to inform mitigation measures such as avoidance of certain sensitive receptors particularly environmental ones. If so, it would be useful if the Applicant could specify the purpose of each aspect of the engineering and design related monitoring in full. We highlight that geotechnical investigations will be critical to inform the cable burial risk assessment and in relation to reducing down the direct or indirect impacts to environmental receptors. We request that further details are provided to answer the questions posed in our overarching comments.
10. Table 4.1 and the preceding text lists out some proposed environmental measures (but is not an exhaustive list) in the form of plans, but it does not set out what monitoring will inform each of the plans and/or determine the success criteria of implementing the plans.

3.2 Coastal Processes

11. Natural England highlights the risks and issues we have raised in our Relevant/Written Representation [RR-265] in relation to potential disruption of coastal processes, and coastal/seabed morphology, as well as the potential impacts this may have on designated site features. Therefore, as with other thematic areas we advise that further consideration is given to monitoring requirements, and the timing and duration of monitoring campaigns in order to better understand if there are any lasting impacts and/or recovery.

3.3 Offshore and intertidal ornithology

12. We note that the IPMP as submitted does not include any ornithological monitoring, based on the EIA concluding no significant effects on ornithological receptors and the Report to Inform Appropriate Assessment concluding no Adverse Effect on Integrity (AEoI). Natural England notes that the Applicant has presented a without prejudice derogation case in relation to options for compensating for potential AEoI on kittiwake for Flamborough and Filey Coast Special Protection Area (FFC SPA). Additionally, as stated in our relevant representations Natural England is not currently able to provide advice on the potential for AEoI on the guillemot and razorbill features of FFC SPA and on the guillemot feature of the Farne Islands SPA without a full in-combination assessment being provided. Natural England advises that the monitoring of any compensation measures that are required would need to be included within the Implementation and Monitoring Plans for the compensatory measures. Currently only an outline Kittiwake Implementation and Monitoring Plan is included, but similar documentation may be needed for further species depending on the results of the full in combination assessments requested. The monitoring requirements that will be required within this plan are dependent on which final species require compensation, and the final compensation measures selected. We advise this plan will need to be updated as further information is known.

3.4 Benthic subtidal and intertidal Ecology

13. Natural England welcomes the monitoring of Priority Habitats under NERC 2006, but note that this is currently limited to chalk, stony reef and potential *Sabellaria spinulosa* reef. We advise consideration is given to monitoring requirements in relation to all the Priority/Annex I habitats raised within our Relevant/Written Representation [RR-265].

We wish to highlight the potential risk raised within our Representations [RR-265] to Marine Conservation Zone (MCZ) features from secondary impacts, which may also require monitoring. As with other thematic areas we advise that further consideration is given to monitoring requirements, and the timing and duration of monitoring campaigns in order to better understand if there are any lasting impacts and/or recovery. We advise that the duration of the monitoring should not be limited to one survey at this point and advise that if no stony reef and/or *Sabellaria spinulosa* reef is identified in the pre-construction surveys this does not diminish the need for post construction surveys in relation to other Priority or Annex I Habitats such as chalk or peat and clay exposures. Natural England advises that where mitigation measures have been proposed, monitoring should ensure the effectiveness of those measures particularly in relation to Priority/Annex I habitats and habitats suitable for black seabream nesting. If it is found that measures have been insufficient, then further measures and/or remediation may be required.

3.5 Fish and shellfish ecology

14. Natural England notes that currently the only monitoring proposed relates to underwater noise. It is proposed that the generic construction noise monitoring will be adopted which includes measuring noise generated by the installation of the first four piled foundations of each piled foundation type to be installed. However, we query what hypothesis this monitoring will test (and how) in regard to fish and shellfish ecology and avoidance of impacts?

15. Natural England considers that piling activities from 1st March to 31st July inclusive have the potential to hinder the conservation objectives of Kingmere MCZ in relation to black seabream. As the Applicant has not included the seasonal restriction in its entirety in the Rampion 2 application, we advised in our Relevant/Written Representations [RR-265] that they begin development of a Measures of Equivalent Environmental Benefit (MEEB) proposal, in the event of the Stage 2 Assessment reaching a negative conclusion. Either way the IPMP will need to have commitments and hypotheses in relation to residual noise impacts on black seabream, as well as an outline noise management plan to avoid further real time impacts from continued piling if the monitoring shows this and/or monitoring of success of mitigation measures and MEEB.

Please note that the above is different to monitoring of recovery.

In addition to underwater noise monitoring, we advise post-construction monitoring that tests whether areas identified as being potentially suitable for black seabream nesting are still suitable for nesting post-construction is presented. This is important to demonstrate that mitigation measures have achieved the levels of mitigation suggested within the application and to evidence recovery post-construction.

3.6 Marine Mammals

16. Currently the only post-consent monitoring that has been proposed is the industry-standard monitoring of underwater noise from the first 4 piles. Whilst the Applicant refers to the Marine Mammal Mitigation Plan (MMMP) there is no consideration of monitoring the effectiveness of the mitigation measures in reducing the impacts to acceptable levels.

Annex A: Natural England’s Advice on an In-Principle Monitoring Plan (IPMP) extracted and summarised from: [Environmental considerations for offshore wind and cable projects - Phase IV Best Practice Advice for Post-Consent Monitoring, Version 1.0, July 2022.pdf](#) (Parker *et al* 2022).

Purpose of the IPMP document

The outcomes of monitoring are necessary to:

- validate the predictions that were made during the consenting phase;
- mitigate against unforeseen impacts;
- evidence the effectiveness/success of mitigation measures;
- inform adaptive management strategies

Therefore, it is important that the IPMP represents a useful document that ensures the monitoring commitments are detailed and can be referred back to throughout the monitoring process.

Advice relating to post-consent monitoring (PCM)

The process and structure of the planning system, including post-consent monitoring, is currently under review by Government, Defra, Natural England and other bodies (see Section 3.1). Options for how PCM can be improved to increase our understanding of the marine environment, the effects of offshore wind development and provide information-rich data over relevant spatial and temporal scales are being considered, such as the promotion of strategic or collaborative monitoring (see Section 4.4). The following section provides Natural England’s advice and recommendations for the production and delivery of receptor-specific monitoring plans at the post-consent phase.

Natural England’s recommendations

- **Early and continued engagement with SNCBs** – engagement with the relevant SNCB(s) is recommended at the earliest possible opportunity to agree the focus of monitoring plans and to allow for continual engagement as plans evolve.
- **Clear aims, objectives and hypotheses**– post-consent monitoring plans should be targeted and have clear aims and hypotheses (Chambers et al. 2012; MMO, 2014; Lindeboom et al. 2015). Monitoring should be proportionate to the level of risk to

biological receptors and should not be delivered for the sake of monitoring, but instead focus on sensitive receptors and be driven by a clear understanding of what the monitoring is seeking to address (MMO, 2014). This helps to collect data that is information rich, as well as data rich (Wilding et al. 2017). Early engagement with NE or relevant SNCB is recommended to help agree monitoring plans.

- **Detection of unforeseen impacts** – post-consent monitoring should be targeted, with clear monitoring aims and objectives. Whilst PCM plans should not be designed to detect unforeseen impacts, the analysis of the results of PCM may identify unforeseen impacts which arise during offshore wind farm development across relevant spatial and temporal scales (MMO, 2014). If detected, unforeseen effects can be investigated through adaptive monitoring (see Section 4.3). Participation in collaborative or strategic-level monitoring projects may be also appropriate for identifying long term and lasting effects to marine receptors as a result of offshore wind development.
- **Statistical power** – the ability of a survey to collect a sufficiently large amount of data to make robust statistical inferences about changes is known as its power (Maclean et al. 2006). Where possible, power analyses should be undertaken before monitoring commences to inform the design of PCM to ensure sufficient statistical power in subsequent analyses to detect meaningful changes (Bennet et al. 2016). Projects should also aim to reduce dependence within or between sampling units and plan the statistical tests and/or modelling approach so that the nature and quantity of data collected is suited to conduct the required tests/modelling (Bennet et al. 2016; Noble-James et al. 2018). Early engagement with Natural England is recommended when considering the statistical power of analyses and how this is used to inform survey design, or if power analyses indicate that the expected statistical power may not be sufficient to draw meaningful conclusions.
- **Uncertainty and significance** – as set out within MMO (2014), uncertainty and significance are two important considerations when designing and implementing PCM plans. Uncertainty reflects the extent of error or assumptions that were made when predicting impacts. There is a greater need to monitor topics if there is higher uncertainty regarding the effects of an impact or resulting recovery of receptors. The significance of an impact is another important consideration for PCM and helps to inform whether further management or remedial measures are required (MMO, 2014).

- **Sufficient duration** – PCM should be of a suitable duration to capture lags in impacts to receptors being detected as some impacts may only be detectable after a duration of time, depending on the receptor and the monitoring objectives. In addition, PCM may be required to monitor the recovery of receptors after an impact has occurred (e.g., impacts from construction) or a compensation measure has been put in place. Monitoring plans should be designed to incorporate long term or lasting impacts to validate predictions made within the ES and to improve our understanding of long-term effects and recovery of marine receptors. Monitoring plans should also have a clearly defined criteria for when and how decisions will be made on the conclusion of monitoring during the post-consent phase, for example when monitoring will be deemed to have met the objectives of the monitoring programme. Refer to the adaptive management approach principle below (Section 4.3).
- **Strategy for consequence** – a key role of post-consent monitoring is to validate the predictions of the ES, HRA, EIA or MCZ Assessment (Section 4). Monitoring plans should therefore have a clear strategy for subsequent remedial action if the monitoring shows that the original conclusions are incorrect, such as the significance of an impact upon a receptor or the timeframe for its recovery (MMO, 2014). Thresholds can be used to set acceptable levels of change for some environmental indicators, which if exceeded, can trigger additional monitoring or the implementation of mitigation or management measures to avoid adverse effects (Bennet et al. 2016; Wilding et al. 2017).
- **Sharing of data** – in order to maximise the usefulness of post-consent monitoring, data and reports should be made publicly available and provided to the relevant data repositories, such as the Marine Data Exchange (MDE) and the Marine Environmental Data and Information Network (MEDIN). All reports should be supported by the source/raw data and provide a description of the collection methodology and protocols followed (MMO, 2014). Metadata and environmental metadata should also be made publicly available (Chambers et al. 2012). Natural England advise that PCM data should be shared within the relevant data repositories as a matter of best practice. This could be secured as a licence condition for projects.
- **Maximise use of baseline characterisation data and existing data** – where possible, data collected at the pre-application phase should be used to supplement post-consent monitoring data. The results of baseline characterisation surveys may also be useful to inform the design of post-consent monitoring plans (e.g., the key

areas or receptors for monitoring to focus upon). There may also be suitable existing datasets which can be used to provide context or supplement site-specific monitoring data. However, the validity and suitability of existing datasets must be carefully considered if used beyond providing a historical context for subsequent monitoring data (Noble-James et al. 2018). Parker et al. (2022a) provides advice and principles for the use of existing data to inform baseline characterisation surveys.

- **Comparable and standardised data** – data should be collected and presented in a consistent format which, where possible, enables effective comparisons with other datasets and other monitoring programmes. Consistent data standards may also allow for backwards/forwards compatibility of monitoring methods over time. Data collection should follow the MEDIN data standards and guidelines as a matter of best practice. A consistent naming convention should also be followed. Species should be recorded using the World Register of Marine Species (WoRMS) list of accepted scientific names and biotopes should be recorded using the EUNIS classification system (EEA, 2019). A consistent and comparable approach also enables effective cumulative and in-combination assessments and improves the functionality of data repositories.
- **Follow industry standards, methodologies and protocols** – monitoring programmes should follow the current industry standards, methodologies and protocols as a matter of best practice. This may apply to data collection, handling or analysis (Chambers et al. 2012). Receptor-specific advice is provided within the relevant sections below. Whilst this document will be periodically updated to reflect evolving best practice for industry standards and survey methodologies, Natural England would welcome the opportunity to discuss proposals to use the latest industry monitoring methods, standards or protocols.
- **Novel and emerging monitoring methods** – Natural England acknowledges the role of offshore wind farm developers in exploring and testing new monitoring methods. Natural England supports innovation and welcomes the exploration of novel and emerging monitoring methods, such as environmental DNA (eDNA), or passive monitoring methods. Although there can be challenges presented by the relative novelty of some techniques in early stages, collaborative working can unlock many wider benefits if planned carefully. Early engagement with Natural England is recommended if novel approaches are proposed.
- **Strategic / joined up approach** – a strategic, collaborative or joined up approach can deliver monitoring programmes of a greater scale and scope, thereby providing a

greater understanding of ecological impacts, sensitivity or recovery (see Section 4.4). Natural England strongly supports strategic or collaborative monitoring proposals and can provide bespoke advice on a case-by-case basis.

Adaptive monitoring and discharge of conditions

Adaptive monitoring is the process of evaluating data collected to date, to help inform the duration and/or design of further monitoring (Bennet et al. 2016). It can also be used to assess whether monitoring should continue or if the relevant licence conditions can be discharged (MMO, 2014). Adaptive monitoring can also inform on the requirement for further mitigation, compensation or restoration measures. Adaptive monitoring is of particular importance for where there is scientific uncertainty regarding lasting impacts or recovery of receptors (Bennet et al. 2016) or where monitoring is seeking to validate predictions of the ES, EIA, HRA or MCZ Assessment.

Adaptive monitoring is relevant during the post-construction phase where monitoring is investigating changes to the natural environment and ecological receptors over an undefined timescale, such as until a receptor recovers. Licence conditions should incorporate flexibility over the duration of monitoring plans, to allow the results of monitoring surveys to inform the requirement for future surveys or the implementation of management measures (MMO, 2014). This helps to ensure monitoring programmes are delivering the agreed aims and objectives set out by the monitoring plans and ensure monitoring is proportionate to the level of data required. For example, if the ES predicted a full recovery of an MPA feature within a certain timeframe, monitoring may be required until full recovery has occurred and can be agreed between the applicant, SNCB and MMO as the relevant regulator. Conversely, if a receptor has demonstrated the predicted level of recovery, and if agreed by all parties, the requirement for additional post-construction surveys may be discharged early.

In addition, another aspect of adaptive monitoring is the flexibility of the monitoring plan. Due to the long timeframe between projects obtaining consent and completing PCM surveys after construction, monitoring plans need to capture the scope for changes to the methodology or focus of surveys over time. This may be due to new evidence or understanding of impacts to marine receptors, or due to new technology becoming available which enables more ambitious studies. For example, seabird tagging projects should allow for flexibility in methods as new tracking devices become available. Natural England can provide advice on a case-by-case basis.

Collaborative / strategic monitoring

Delivering monitoring projects collaboratively could have many benefits for the collection of post-consent monitoring data and can help to answer key evidence gaps or research priorities. Collaborative monitoring could include joint monitoring programmes across zones or regions where projects pool resources to achieve monitoring aims, or where key research questions are divided between projects within a zone or region to allow sufficient time and resources to be dedicated to each question. Collaborative monitoring could also comprise individual offshore wind projects contributing data, money or resources to a strategic research project led by another organisation, such as by ORJIP or ORSMRF, to address shared research questions or evidence gaps. Working collaboratively allows for the pooling of resources and/or division of labour, which enables monitoring programmes to be of a greater scale and scope than possible on a project-specific basis. This enables data collection to produce useful and information-rich data over sufficient spatial and temporal scales to enhance our understanding of the marine environment and the effect of offshore wind development upon ecological receptors (Wilding et al. 2017).

In addition, collaborative monitoring could be undertaken over larger spatial and temporal scales than project-specific monitoring plans, which could enable the detection of wider community changes, unforeseen or long-term effects, and allow for greater statistical power in subsequent analyses. Some projects have worked collaboratively to address key shared questions of mutual interest at the post-consent phase (e.g., see Section 6.3.1). If implemented effectively, this allows for the division of labour and allows multiple projects to undertake more insightful monitoring programmes than possible on an individual project-level.

Whilst there is widespread agreement of the benefits of collaborative monitoring across sector groups, a framework is required to facilitate strategic monitoring programmes at the government level. Facilitating strategic monitoring is a key objective of Natural England's Approach to Offshore Wind (Natural England, 2021) and Natural England supports the implementation of strategic monitoring as a mechanism to address key evidence gaps and to deliver monitoring projects at scale. Natural England are also leading the Planning Offshore Wind Strategic Environmental Impact Decisions (POSEIDON) project. This is a multi-year project, funded through the Crown Estate's Offshore Wind Evidence and Change (OWEC) programme, which is seeking to address strategic data collection for offshore wind projects. The outputs of the POSEIDON project will be incorporated into this advice when available. Projects should consider whether data collection for some aspects of post-consent monitoring could be undertaken collaboratively with other regional projects in order to answer specific monitoring aims and priorities. Natural England strongly supports the implementation of

collaborative monitoring programmes across projects, zones or regions, and can provide advice on a case-by-case basis



THE PLANNING ACT 2008

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Rampion 2 Offshore Wind Farm

Appendix A1 to the Natural England's Deadline 1 Submission

Natural England's Comments on Schedule of Changes for the Draft Development Consent Order - Revision A [PEPD-011], Draft Development Consent Order – Revision B [PEPD-009/PEPD-010] and Alternative Schedule 17 – Revision A [PEPD-017]

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

28th February 2024

Natural England's Advice on the Draft Development Consent Order

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

- [PEPD-011] 3.3 - Schedule of Changes for the Draft Development Consent Order - Revision A
- [PEPD-009/PEPD-010] 3.1 Draft Development Consent Order – Revision B
- [PEPD-017] 5.10.1 Alternative Schedule 17 – Revision A

1. Summary

Natural England notes that the updated DCO has included a variety of amendments in response to issues we have raised. On the whole, we welcome the changes that have been made. We note however, that those issues raised in our relevant/written representation and not discussed in our detailed comments below are considered unchanged.

To avoid repetition, we have commented on the schedule of changes and not the DCO, as the changes within the DCO are recorded here and should be identical.

2. Detailed Comments

Table 1 Summary of Key Issues Document Reviewed - Schedule of Changes for the Development Consent Order Revision A

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve Issue
Document Reviewed – Schedule of Changes for the Development Consent Order Revision A					
1	Table 1	1	Article 2	Natural England notes an update that has been made (as per our advice) and agrees with the definition provided in relation to Statutory Nature Conservation Body (SNCB).	We advise no further action is required.
2	Table 1	5	Schedule 1, Part 3 - Requirements 2 (6) and 4	Natural England notes an update has been made (as per our advice) and that these requirements now include the area of impact for the scour protection.	We advise no further action is required.
3	Table 1	8	Schedule 1, Part 3 - Requirement 14 (1)	Natural England notes that, as per our advice, the SNCB has been included as a consultee on the Biodiversity Net Gain Strategy.	We advise no further action is required.
4	Table 1	10	Schedule 11 Part 2 Condition 1 (6) and Schedule 12 Part 2 Condition 2 (6)	Natural England notes an update has been made (as per our advice) and that these requirements now include the area of impact for the scour protection.	We advise no further action is required.
5	Table 1	11	Schedules 11 and 12 Part 2 condition 2 (6)	Natural England notes an update has been made (as per our advice) and that cable protection will only be deployable under this DCO for 10 years from commencement. We would however, advise a slight update to state offshore commencement, noting there are different definitions for both on and offshore commencement and that onshore works often commence a year or more ahead of offshore. We advise more precise wording would remove any ambiguity.	We advise that more precise wording is added in relation to offshore commencement.
6	Table 1	15	Schedules 11 and 12 Part 2 Condition 11 (1) (a)	Natural England notes the updated wording and considers that it partially addresses our concerns. We advise that the Applicant considers amending the requirement to state that they will microsite around features of ecological or conservation importance.	We advise a further consideration is given to this amendment.

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve Issue
7	Table 1	16-17	Schedules 11 and 12 Part 2 – Condition 11 1 (c)	As per our comments on Condition 11 (1) (a) above.	As above.
8	Table 1	19-20	Schedules 11 and 12 Part 2 Condition 16 (2)	Natural England notes that Condition 16 (2) (a) now includes a requirement for side scan sonar, as per our request. We further note that Condition 16 (2) (b) now includes a requirement to survey for clay and peat exposures, as per our request.	We advise no further action is required.
Document Reviewed – Alternative Schedule 17					
9	General	N/A	N/A	Natural England notes that discussions regarding the compensation requirements for Kittiwake are ongoing. Therefore, our position on the compensation schedule may change subject to discussions and agreements made in relation to what is required. We reserve the right to raise issues later in the examination process with regard to the drafting, as this issue progresses. Natural England have provided some general advice below on the proposed schedule considering the general need to secure and enforce compensation requirements.	We have provided some general guidance in our comments below, which we advise is considered at this stage.
10	General	N/A	N/A	Natural England notes that the proposed provisions differ to the majority of previous projects that have required compensation, as they remove the requirement for a steering group to be involved in the drafting of the implementation and monitoring plan. Whilst we recognise that the collaborative nature of the Applicant's proposed compensatory measures may mean an alternative approach is necessary, Natural England may have further comments on this as discussions on compensation progress. At this stage, we wish to note that previous Steering Group conditions did provide for some important aspects that should still be captured through condition, even if no Steering Group is required. If no Steering Group is provided, then these aspects could be conditioned separately as to be submitted to the SoS and approved in consultation with the relevant SNCB. These aspects include; a timetable for preparation and delivery of the Kittiwake Implementation and Monitoring Plan (KIMP), a schedule of meetings and an agreed dispute resolution procedure. The schedule of preparation and delivery is important as it provides a chance to address any unrealistic timing requirements early on in the process (please also note Point 11 and the issues with timing requirements). While the dispute resolution procedure allows any disputes between parties to be resolved quickly to avoid potential delays.	We advise that amendments to schedule 17 are considered, subject to ongoing discussion regarding compensation requirements.
11	Condition 4	4	N/A	The condition as drafted does not provide a timing requirement beyond it being prior to operation of the offshore wind farm. We note that similar compensation schedules on Hornsea Project 3, Norfolk Boreas, Norfolk Vanguard, East Anglia One North and East Anglia Two all had timing requirements that the compensation be delivered four full breeding seasons prior to operation. We advise that such timing requirements should be added to ensure the compensation measures are fully functional and compensating prior to the impact occurring.	We advise that condition 4 is amended to ensure compensation is delivered four full breeding seasons prior to operation of the offshore wind farm.
12	General	N/A	N/A	Natural England notes that there are no provisions for the end of the lifetime of the projects and the compensatory measures. Please see the example below, which includes wording taken from the recent Dudgeon and Sheringham Extension NSIP draft DCO which appropriately covers the requirement to gain approval for decommissioning of the compensatory measures: 'The artificial nest site improvement measures must not be decommissioned without written approval of the Secretary of State in consultation with the relevant statutory nature conservation body.'	We advise a condition on this is added.

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to resolve Issue
13	General	N/A	N/A	<p>Natural England notes that there is no requirement to notify the SoS that the installation of compensatory measures has been completed. This links to evidencing the requirement for the measures to be in place four full breeding seasons in advance and provides a clear starting point for the timing requirements. Again, we have provided wording taken from the Dudgeon and Sheringham Extension Offshore Wind Farm NSIP draft DCO for consideration:</p> <p>'The undertaker shall notify the Secretary of State of completion of implementation of the artificial nest site improvements measures set out in the Kittiwake Compensation Implementation and Monitoring Plan.'</p>	We advise a condition on this is added.



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

2010

Rampion Two Offshore Wind Farm

Appendix E1 to the Natural England's Deadline 1 Submission

**Natural England's Comments on Appendix 8.4: Black Seabream Underwater
Noise Technical Note and Survey Results - Revision A [PEPD-023]**

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

28th February 2023

Natural England's Advice on the Black Seabream Underwater Noise Technical Note and Survey Results

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

- [PEPD-023] 6.4.8.4 - Environmental Statement - Volume 4- Appendix 8.4: Black Seabream Underwater Noise Technical Note and Survey Results - Revision A

1. Summary

Natural England welcomes the provision of further information on the underwater noise baseline during the black seabream breeding period (March-July). Based on the information provided, we maintain the position stated within our relevant representations. We do not agree with the conclusions of this survey report and as such there is no justification to revise our advice. Indeed, Natural England considers that the report usefully demonstrates that underwater noise levels at the Applicant's proposed threshold would represent a significant increase from the background underwater noise levels within the MCZ, and therefore this study supports our position that the threshold proposed is not suitable.

Natural England continues to advise that piling activities from 1st March to 31st July inclusive have the potential to hinder the conservation objectives of Kingmere Marine Conservation Zone (MCZ) in relation to black seabream, and therefore a full seasonal restriction is required.

2. Main Comments

Natural England have focussed our commentary on the Sound Pressure Level root mean squared (SPL_{RMS}) values. The Peak sound pressure level (SPL_{peak}) values presented are of interest, but these represent transient/short-lived noises (measuring absolute maximum exposure at any one time), and therefore are not representative of the continuous noise generated from pile driving.

To date the Project has proposed a behavioural threshold of 141 dB single strike Sound Exposure Level (SEL_{SS}), which equates to 148 dB SPL_{RMS} . A lower 135 dB SEL_{SS} has also been suggested (which equates to 142 dB SPL_{RMS}). For ease of reference, from this point onwards NE will refer to these thresholds as 148 dB SPL_{RMS} and 142 dB SPL_{RMS} respectively. To avoid confusion, Natural England advises that the Project provide a translation table between SEL_{SS}/SPL_{peak} and SPL_{RMS}/SEL_{CUM} (cumulative Sound Exposure Level) as the noise modelling in the Environmental Statement is presented as SEL_{CUM} . It should also include details on all proposed thresholds, such as temporary threshold shift (TTS), injury and mortality. We advise it would also be useful for baseline SEL_{CUM} to be calculated for comparison against the predictions included in the Environmental Statement (ES).

Natural England advises that both of the proposed noise thresholds for behavioural responses in black seabream (148 and 142 dB SPL_{RMS}) are significantly above the observed baseline conditions (see extracted Table 6.1 below). If 148 and 142dB SPL_{RMS} were to be plotted against the data in the figures, they would rarely intersect with the dB SPL_{RMS} values, and would occupy the upper half of SPL_{peak} . We note that Table 6.1 is useful in presenting the 90th (the level is exceeded 90% of the time), 50th (the level is exceeded 50% of the time) and 1st percentiles (the level is exceeded 1% of the time). These percentiles are helpful in understanding how much of the time the background noise was at certain levels. The report states that '134.3 dB SPL_{RMS} is regularly exceeded under baseline conditions', however this statement does not consider that this is only for around 1% of the time, that these are short term events (on average lasting just over 14minutes per day), and that it could only be once

per day. Furthermore, this figure is still 7.7 dB quieter than the lower behavioural response threshold proposed.

Table 6-1 Statistical summary of noise levels across the survey period, 2023

	SPL_{RMS} (dB re 1 µPa)				Notes
	Mar (15 days)	Apr-Jun (55 days)	Jul-Aug (39 days)	Mar-Augt (109 days)	
SPL _{RMS,90}	110.9	108.2	108.3	108.4	Background noise
SPL _{RMS,50}	116.9	111.5	112.4	112.1	50 th %ile, average noise
SPL _{RMS,01}	136.7	132.3	134.3	134.3	Short-term events, ~14 mins/day

Taking into consideration all the data presented in the report, we advise it is evident that background noise levels rarely reach the thresholds proposed (148 & 142 dB SPL_{RMS}), and when they occasionally do it is only for short periods of time. We advise that piling would represent a notable increase from baseline conditions during the bream breeding season (March-July), and therefore the data presented does not support the Applicant's assertion that there will be no impact on breeding black seabream under prolonged exposure to 148 & 142 dB SPL_{RMS} conditions.

3. Detailed Advice on the Underwater Noise Technical Note and Survey Results

Table 1 Comments on - 6.4.8.4 - Environmental Statement - Volume 4- Appendix 8.4: Black Seabream Underwater Noise Technical Note and Survey Results - Revision A [PEPD-023]

Point number	Location within Submitted Document			Natural England Response	Natural England's Advice to Resolve Issue
	Section	Page	Paragraph, Table or Figure Number	Key Concern	
1			General Comment	We advise that to fully understand the baseline underwater noise data presented, a plot should be provided that is similar to Figure 6.1 that includes the entire dataset (2023 and 2022) for all months, displaying both SPL _{RMS} values, SPL _{peak} values, and lines indicating the 148 & 142 dB SPL _{RMS} thresholds in relation to the data. We advise that this dataset needs to be considered in context of the impact assessment and related back to the predictions in the ES, including the noise contours.	We advise this further information is provided in an updated report to clarify the findings with respect to the Applicant's proposed noise thresholds.
2	1	2	Paragraph 2	It should be noted that detailed comments on underwater noise were provided in our relevant/written representation on Fish and Shellfish Ecology. We advise that these comments are included in the key milestones and the documents list.	We advise the key milestones and documents list is updated.
3	4	6	Section 4.1	We note that the spatial distribution of underwater sound pressure is depth dependent. We advise that information on the water depth at the hydrophone location and justification for its position in the water column is provided.	We advise this information is provided in an updated report.

Point number	Location within Submitted Document			Natural England Response	Natural England's Advice to Resolve Issue
	Section	Page	Paragraph, Table or Figure Number	Key Concern	
4	4	6	Section 4.1	We note that a single hydrophone has been used in the study, in only one location, resulting in no replicate data being available to corroborate the findings. The National Physical Laboratory Good Practice Guide for Underwater Noise Measurement (National Measurement Office <i>et al.</i> 2014) lists the advantages of using more than 1 hydrophone per measurement location. We advise that justification is provided in relation to the use of a single hydrophone, and only one location, or that the report is updated to indicate that the methodology used has some limitations.	We advise that it would be helpful if this information was provided in an updated report.
5	4	9	Section 4.3	Natural England advise that the results from the beginning of the survey period cannot be relied upon to be fully representative, particularly in March (16 days) and April (4 days) when the number of days monitoring was significantly reduced. There was also no data collected between the 21 June and 7 July. Although the data collected over 15 days in August falls outside the breeding period for black seabream, Natural England welcome its inclusion for additional context.	We advise that this limitation is clearly highlighted within the discussion text in an updated report and that where the data is limited this should not be fully relied upon to be representative.
6	6	12	Table 6.1	We note that the number of days stated in Table 6.1 is not consistent with the number of days stated in Table 5.1.	We advise that the report is updated to state a consistent number of days.
7	6	12 14	Section 6.2 Section 6.3	Natural England have previously provided detailed comments on the unsuitability of Radford <i>et al.</i> (2016) and Kastelein <i>et al.</i> (2017) (as well as Collett <i>et al.</i> (2012)) in our relevant representations.	We advise that this is Natural England's long-standing position on this point.

Point number	Location within Submitted Document			Natural England Response	Natural England's Advice to Resolve Issue
	Section	Page	Paragraph, Table or Figure Number	Key Concern	
				Natural England does not support the use of 141dB re 1uPa SEL _{SS} (taken from Kastelein <i>et al.</i> (2017)), as a threshold for behavioural disturbance in black seabream and we do not agree that this threshold is precautionary. We highlight that Natural England has consistently advised against this approach throughout the evidence plan process and then our relevant representations.	
8	6	12	Section 6.2	<p>We note that section 6.2 states:</p> <p><i>“All reactions to noise stimulus noted in these publications, at all reported noise levels, are relatively minor and short-term. Although sound exposure tests have not been undertaken to identify the reaction of nesting seabream, where this level was only found to lead to an initial and short-lived reaction, it would reasonably be expected to be somewhat less than sufficient for fish to abandon their nests when they would be highly motivated to remain for this activity. Additionally, habituation to noise could be expected: Radford et al. (2016) demonstrated a reduction in reaction to piling noise with time at higher levels (146.7 dB SPLRMS) than are proposed for the noise limit at Rampion 2.”</i></p> <p>Natural England have previously provided detailed comments on the unsuitability of Radford <i>et al.</i></p>	We advise that this is Natural England's long-standing position on this point and that unless further evidence is brought forward, reference to habitation is removed from the assessment in any updated report.

Point number	Location within Submitted Document			Natural England Response	Natural England's Advice to Resolve Issue
	Section	Page	Paragraph, Table or Figure Number	Key Concern	
				<p>(2016) in our relevant representations, which noted that:</p> <p><i>“Breeding black seabream exhibit breeding behaviours that if subject to a behavioural response could even in the short-term lead to effects on breeding success that could be significant. We strongly disagree that these effects can be considered to have no wider effect on the MCZ feature, considering the impacts of potentially failed breeding at Kingmere across the local population (given site fidelity) and in the light of the conservation objectives of the MCZ. We therefore advise that the application of the concept of acclimatisation to noise is inappropriate in this instance. This is because even if acclimatisation were to occur, the time frames over which it may occur would mean that it is likely this effect would have already had a significant impact on the breeding success of bream before this point, and that it is feasible breeding attempts could have failed for that year.”</i></p>	
9	6	13	6.2.3	<p>We note that the statistical average of the background noise levels over the period was recorded at around 108.4 dB SPL_{RMS}, 90 (90 %ile). Higher levels of 134.3 dB SPL_{RMS}, were only exceeded 1% of the time (i.e., on average just over 14 minutes a day). We advise that the Applicant's</p>	<p>Natural England's advice remains that a full seasonal restriction (1 March – 31 July) is required to avoid hindering the conservation objectives of the MCZ.</p>

Point number	Location within Submitted Document			Natural England Response	Natural England's Advice to Resolve Issue
	Section	Page	Paragraph, Table or Figure Number	Key Concern	
				<p>proposed threshold of 141dB re 1uPa SEL_{SS} (approximately equivalent to 148 dB SPL_{RMS}) is significantly above background noise levels, and the elevated level of noise would be a significant increase from average baseline conditions during the bream breeding season. In turn, this has the potential to elicit a behavioural response that could significantly impair their ability to undertake normal breeding behaviours during breeding season. Male black seabream exhibit guarding behaviours which are critical for protecting the eggs from predation and keeping it free from sedimentation before they hatch, if these behaviours are interrupted then this has the potential to impact on the viability of the nest and the success of the breeding attempt. Further to this, noise disturbance also has the potential to affect the physical condition and health of the bream, at a stage where their guarding behaviours already mean they are expending more energy, reducing their feeding opportunities, and increasing their predation risk.</p> <p>Natural England advise that the further information provided in this report <u>further supports</u> Natural England's position that this is not a suitable threshold in relation to black seabream behavioural disturbance and would not prevent the proposal from potentially hindering the conservation objectives of Kingmere MCZ.</p>	

Point number	Location within Submitted Document			Natural England Response	Natural England's Advice to Resolve Issue
	Section	Page	Paragraph, Table or Figure Number	Key Concern	
10	6	13	6.2.3	We advise that whilst the maximum hammer energy applied for remains 4400 kJ, it should be assumed that this will be required as a worst-case scenario at all locations. Therefore, any comments regarding this potentially not being required at some locations should be disregarded unless the maximum energy applied for is reduced.	We advise that the worst-case scenario of a hammer energy of 4400KJ being required at all locations has to be what is assessed, unless the Applicant reduces the maximum hammer energy applied for.
11	6	13	6.2.3	<p>It is stated that <i>'Rampion 1 piling did not use any noise abatement systems and the estimated noise at the Kingmere site was 147.0 to 156 dB SELs, based on extrapolations of the measurements from the noise monitoring undertaken at the time. (The noise levels were not measured at this location during WTG foundation construction). There was no apparent impact on breeding success for seabream following the installation of Rampion 1 (with piling taking place within the extended spawning period for black seabream (Mar-Jul)); an increase in population was identified year on year before and after the installation'</i>.</p> <p>We advise that no evidence is provided to support the claims made here. We therefore advise in the absence of evidence in the form of noise level measurements for Rampion 1, and specific population level monitoring of black bream (which the spatially limited aggregates monitoring and the Rampion 1 fish monitoring do not provide), this point has no scientific basis.</p>	<p>We advise that unless robust scientific evidence can be provided to support this point it should be removed from consideration.</p> <p>We advise that there is insufficient evidence provided to support assertions made in relation to Rampion 1. We advise that unless further evidence can be provided these assertions are removed from an updated report. We advise differences in the situation between Rampion 1 and Rampion 2 limit any meaningful comparison and that this should also be clearly recognised in an updated report.</p>

Point number	Location within Submitted Document			Natural England Response	Natural England's Advice to Resolve Issue
	Section	Page	Paragraph, Table or Figure Number	Key Concern	
				<p>We note the reference to piling during Rampion 1. Natural England advises that any assessment should recognise the worst-case scenario predicted for Rampion 2, and unless the worst-case scenario values are reduced to the figure provided for Rampion 1, we advise this information does not alter our previous advice.</p> <p>We advised that a piling ban was in place for Rampion 1 for a substantial part of the black seabream breeding season from 15 April and 30 June for monopile foundations and a partial ban for jacket/ multi-leg piles. It should be noted that the sensitive season for black seabream nesting in the conservation advice for Kingmere MCZ was updated in March 2021 from April to June, to March to July.</p> <p>When making any comparison between Rampion 1 and Rampion 2, it is key to recognise that there are a number of key differences that include (but are not limited to): the project location in relation to the Kingmere MCZ (with more of the Rampion 2 array area being closer), the difference in project installation parameters (such as pile size and hammer energy), and environmental parameters (such as ground conditions), which could differ as the Project is yet to collect full geotechnical information. Additionally, the Rampion 2 Application</p>	

Point number	Location within Submitted Document			Natural England Response	
	Section	Page	Paragraph, Table or Figure Number	Key Concern	Natural England's Advice to Resolve Issue
				includes simultaneous piling, which we understand was not permitted under the Rampion 1 DCO, unless further noise measurement and contours were provided.	

1) References

- Kastelein, R.A., Jennings, N., Kommeren, A., Helder-Hoek, L., Schop, J. 2017. Acoustic dose behavioural response relationship in sea bass (*Dicentrarchus labrax*) exposed to playbacks of pile driving sounds. *Marine Environmental Research*, 130, 315-324.
- National Measurement Office, Marine Scotland, The Crown Estate, Robinson, S.P., Lepper, P. A., Hazelwood, R.A. 2014. Good Practice Guide for Underwater Noise Measurement. *NPL Good Practice Guide*, No. 133. ISSN: 1368-6550.
- Radford, A.N., Lebre, L., Lecaillon, G., Nedelec, S.L., Simpson, S.D. 2016. Repeated exposure reduces the response to impulsive noise in European seabass. *Global Change Biology*, 22, 3349–3360.