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THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

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Appendix H8 to the Natural England Deadline 8 Submission

Natural England's End of Examination Position on the Applicant's Proposed Offshore Ornithology Compensatory Measures

For:

The construction and operation of the Dogger Bank South (East and West) Offshore Wind Farm located approximately 100-122 km off the Northeast Coast in the Southern North Sea

Planning Inspectorate Reference EN010125

3rd July 2025

Appendix H8 - Natural England's End of Examination Position on the Applicant's Proposed Offshore Ornithology Compensatory Measures

In formulating Natural England's final position on the Applicant's Proposed Compensatory Measures for Offshore Ornithology, the following documents have been considered:

- [REP6-011] 6.2.1 Appendix 1 Project Level Kittiwake Compensation Plan (Revision 6)
- [REP6-013] 6.2.2 Appendix 2 Guillemot and Razorbill Compensation Plan (Revision 6)
- [REP4-023] 6.2.1.2 Outline Kittiwake Compensation Implementation and Monitoring Plan (Revision 2)
- [REP4-027] 6.2.2.1 Annex A Outline Guillemot and Razorbill Compensation Implementation and Monitoring Plan
- [REP4-085] 12.6 Case for Reduction in Kittiwake Breeding Seasons for ANS Installation (Revision 2)
- [REP4-097] 14.12 Isles of Scilly Guillemot and Razorbill Survey and Habitat Assessment
- [REP3-020] 10.20 DBS Guillemot and Razorbill Compensation Site Refinement Report
- [REP3-030] 13.5 Precaution in the Ornithology Assessment and Implications for Compensation Quantum
- [APP-055] 6.2.1.3 Collaborative Delivery of Kittiwake Compensation: Letter of Intent

1. Introduction

Natural England have engaged constructively and in detail with the Applicant on matters relating to compensation throughout the Evidence Plan Process, and into the Examination period for the Dogger Bank South (DBS; East and West) offshore wind farms (OWF). Due to previous Secretary of State (SoS) rulings, the Applicant has conceded that an adverse effect on integrity (AEoI) in-combination with other plans or projects cannot be ruled out for black-legged kittiwake *Rissa tridactyla* and common guillemot (*Uria aalge albionis*) at Flamborough & Filey Coast Special Protection Area (FFC SPA), and that compensatory measures are required.

For species where AEoI remains disputed, namely razorbill (*Alca torda*) from FFC SPA and guillemot from Farne Islands SPA, compensatory measures have been provided on a 'without prejudice' basis. Following provision of the Applicant's updated assessments, Natural England consider that AEoI cannot be ruled out for FFC SPA razorbill or Farnes SPA guillemot in-combination with other plans and projects, thus requiring compensation to be secured for these species. Please see Appendix G8 of our Deadline 8 submission for full details of our ornithology assessment conclusions.

2. Natural England's summary position on the proposed compensatory measures

The Applicant has progressed species-specific compensatory measures, with the aim of compensating for predicted impacts on kittiwake by the provision of an offshore artificial nest structure (ANS), and guillemot and razorbill through undertaking predator (rat) eradication. Despite the Applicant's ongoing efforts and the significant progress made, Natural England are not able to advise that the proposed measures can deliver the required compensatory benefits to the target FFC SPA species or can be considered adequately secured. The principal reasons for our conclusions are:

2.1. Offshore ANS

Natural England consider the implementation of an offshore ANS to be an appropriate measure for impacts on kittiwake from an ecological perspective, and consider that it has reasonable prospects of delivering, though the high number of predicted collisions will make delivery of a sufficient quantum challenging. However, we retain concerns around risk and scale if only a single structure is provided.

2.2. Predator eradication

The scoping and selection of predator eradication sites remains in progress and a site for a project-led measure has not yet been identified. Whilst we acknowledge that issues with delivery of strategic compensation are outside of the Applicant's control, we note that a delivery mechanism for compensation on the Isles of Scilly has yet to be established and secured, although a Task & Finish Group is in place to develop this. Outstanding concerns therefore remain relating to the timescales for beginning and achieving compensation, as well as the compensation potential of a site, with potential consequences for the accrual of mortality debt.

Natural England's detailed advice on the Applicant's compensation measures has been provided in the following previous Examination submissions: [REP1-065], [REP3-055], [REP4-124], [REP4-125], [REP5-059] and [REP6-076]. We have not repeated this advice in full within this Appendix, but have signposted to it were relevant.

3. Wider considerations

3.1. Connectivity

All of the proposed measures are to be implemented remotely to the impacted sites, and for the kittiwake measure in particular, the accrual of any material benefit to the national site network (NSN) remains uncertain. While Natural England are not opposed to the implementation of seabird compensation at a species bio-geographic population scale, the likely level of benefit to the national

site network should be carefully considered in conjunction with uncertainty around method effectiveness and project impacts when appraising the proposed scale of the compensatory measures. These concerns are intensified when the proposals are assessed against the predicted scale of the impacts on FFC SPA species when calculated using Natural England's advised methodology (see Appendix G8 and Annex).

3.2. Calculation of compensation requirements and scaling of compensation measures

3.2.1. Method for calculating compensation quantum

Natural England acknowledge that identifying a robust and proportionate approach to calculating the number of breeding pairs required to compensate for a specified impact has proved challenging. The pressing need for independent expert advice on the topic led to the British Trust for Ornithology (BTO) being contracted by Natural England (on behalf of the Collaboration on Offshore Wind Strategic Compensation (COWSC)) to critically review the available methods and determine the most appropriate method. Natural England submitted the finalised BTO report into Examination at Deadline 7 [REP7-155]. Natural England continues to consider the BTO's recommendations, but in the meantime we maintain our previous advice [REP1-065] that the Hornsea 3 Part 2 ('H3pt2') method should generally be used to calculate the number of breeding pairs required to compensate for a specified mortality impact. This is because the H3pt2 method, unlike the Hornsea 4 (H4) method, includes consideration of the number of adults that need to be produced for a colony to be able to sustain itself, as opposed to drawing birds out of the existing population to do so. It is also of note that the H3pt2 method was conceived to inform the design parameters of ANS for kittiwake.

However, acknowledging that necessary demographic information is limited or poorly evidenced for auk species (guillemot and razorbill), Natural England currently consider that it is appropriate for the H4 method to be used, provided that calculations are based on the 95% upper confidence level impact value and suitable compensation ratios are applied.

3.2.2. Use of 95% upper confidence limit

Natural England generally advise that the scale of implementation of seabird compensatory measures should be sufficient to address the 95% upper confidence limit (UCL) predicted impact value. The 95% confidence interval shows the range within which we can be 95% confident the true value falls. Natural England advise that compensation measures should be scaled using the 95% UCL to ensure that, given the uncertainties regarding the predicted impacts, the Secretary of State can have sufficient confidence that the measures can offset a greater level of impact from the development, should the impacts exceed those of the central prediction. We acknowledge that Habitats Regulations Assessments have generally (though not always) set the target or objective for the compensation to achieve with respect to the central impact value. We consider this to be

proportionate rather than only judging success against the worst-case scenario. See Section 1.2.1 of [REP4-124] for full rationale.

3.2.3. Application of compensation ratio

The application of a compensation ratio is used to address the uncertainty that a proposed compensation measure will be able to deliver the required benefits. The most appropriate ratio should therefore be determined on a case-by-case basis, considering the level of impact, the feasibility of the measure, and its potential effectiveness. The appropriate ratio should be applied to scale the implementation of a measure, for example by delivering at multiple distinct sites, each capable of addressing the impact alone. Guidance is clear that 1:1 ratios are only appropriate where there is high confidence in the likelihood of success, which given that seabird compensation is still in its infancy, is unlikely to be the case for seabird compensation measures. [REP1-065]

3.3. Collaborative and strategic approaches to compensation

3.3.1. Kittiwake Strategic Compensation Plan (KSCP)

Natural England recognises the current uncertainty around the implementation of the Kittiwake Strategic Compensation Plan (KSCP) and therefore welcome the provision of Project-led kittiwake compensation measures by the Applicant, the alignment of these with the measures and approach outlined in the KSCP, and the commitment to securing these measures as a requirement of the DCO.

3.3.2. Collaborative approach to kittiwake ANS

The Applicant has stated their intention to deliver kittiwake compensation in collaboration with Outer Dowsing (ODOW) OWF and has committed to delivering a single project-led ANS, with a second ANS to be delivered by ODOW. Natural England welcome the Applicant's commitment to a collaborative approach and that a Memorandum of Understanding (MOU) has been agreed for nesting space to be shared to present reciprocal resilience across the compensation measure, therefore delivering the strategic measure and approach in line with the KSCP, collaboratively through the installation of individual project-led ANS. However, we highlight that the provision of a single offshore ANS is unlikely to be sufficient to compensate for the predicted impacts of DBS, should delivery of collaborative/strategic measures fall through.

3.3.3. Isles of Scilly predator eradication

Natural England note that for predator eradication on the Isles of Scilly, it is the preference of The Wildlife Trusts that this is progressed as a strategic measure via the Marine Recovery Fund, rather than as a project-led measure. Natural England therefore welcome the Applicant's continued engagement with the Isles of Scilly Task and Finish group. Natural England attends the Task and

Finish group and can confirm that the Applicant's submissions accurately reflect progress with this strategic compensation measure. Please see Annex 1 for further comment on the Isles of Scilly measure.

3.3.4. Marine Recovery Fund

The Applicant has identified the upcoming MRF as a potential alternative mechanism for the provision of compensation for all three species for which compensation measures have been proposed. As set out in the Interim Guidance published by the Department for Energy Security and Net Zero (DESNZ) in January 2025 ('*Strategic compensation measures for offshore wind activities: Marine Recovery Fund interim guidance'*), Applicants wishing to use offshore Artificial Nesting Structures ('offANS') or predator eradication as a compensation measure ahead of the MRF being operational will need to deliver the measure themselves or in collaboration with other projects. Nevertheless, the guidance also states that Applicant may also wish to include a provision allowing for a contribution to be made into the MRF in substitution for delivering the predator control compensation measure themselves, should the MRF have relevant measures available at that time. We are content with the approach that the Applicant has taken to securing this option.

Natural England's detailed position on the Applicant's proposed offshore ornithology compensatory measures is detailed in Annex 1.

Annex 1: Detailed positions on the Applicant's proposed offshore ornithology compensatory measures

This Annex provides Natural England's advice and recommendations and final position on our confidence in each of the compensation measures proposed by the Projects. We have used the following criteria to assess each category in the summaries:

	NE has broad confidence in this aspect of the measure, though there may be some uncertainties that need addressing.
	There are significant concerns/uncertainties regarding this aspect of the measure, but they have the potential to be resolvable.
	Major uncertainties remain with this aspect of the measure, which if not resolved would make compensation undeliverable. NE cannot be confident at this stage that the measure is deliverable.

Natural England compensatory measures 'check list

To assist developers and regulators, Natural England has developed a checklist of aspects that need to be described in detail in compensation submissions, to give confidence that the measures can be secured (see Annex 1 of this document). This checklist forms the basis of the summary table criteria presented in the species sections below.

Natural England's Advice and Recommendations

1. Kittiwake

1.1. Compensation requirement

The mean annual impact of the Projects combined on kittiwake at FFC SPA has been calculated as 191 birds (95% UCL 377) according to the SNCB advised approach (see Appendix G8). The Applicant has calculated compensation requirements based on both the mean and 95% UCL impact values, and using both the Hornsea 4 (H4) and Hornsea 3 Part 2 (H3pt2) methods [REP6-011]. The Applicant has also provided the compensation requirements for a range of compensation ratios, which is welcome. Whilst the Applicant's preferred approach is the H4 method, Natural England have provided our advice based on the requirements calculated in line with our advice (H3pt2) (Table 1).

Table 1. Compensation requirements of DBS (East and West) for FFC SPA kittiwake, calculated using the H3Pt2 method for a mean impact value of 191 birds (95% UCL 377 birds) [REP6-011]

	Number of breeding pairs of kittiwake required to compensate impact	
Compensation ratio	**Mean impact value**	**95% UCL impact value**
1:1	1056	2086
2:1	2112	4172
3:1	3168	6258

1.2. Compensatory measure: Offshore Artificial Nest Structure

The Applicant has proposed the delivery of a single project-led offshore ANS to compensate for the predicted impacts of the Projects on kittiwake at FFC SPA, with a collaborative approach proposed for the delivery of a second offshore ANS by ODOW OWF. It is proposed that the two ANS together will provide sufficient compensation for the impacts of ODOW and DBS combined. The combined compensation requirements of both ODOW and the DBS Projects therefore need to be considered in the context of the proposed measure (ODOW predicted requirement: 542 breeding pairs (2:1), 813 breeding pairs (3:1)[1]). We note that the smaller impacts of ODOW provide an opportunity for an ODOW-led structure to supply a significant proportion of DBS's kittiwake compensation requirements, whilst the provision of two ANS would also provide resilience against one structure not performing as expected.

The Applicant maintain that, should the collaborative approach with ODOW not proceed, they would be able to provide sufficient compensation through a single ANS (though we note economic arguments casting doubt on this have been included in the most recent KCP [REP6-011]). However, given the scale of the predicted impacts of the DBS Projects, Natural England consider that a single ANS may not be sufficient to deliver the level of compensation required. We note that, while the Applicant has stated that their ANS design can be scaled to meet whatever the final agreed compensation requirements of the Projects may be, no designs have been submitted into the Examination, and the Applicant has stated that the design will be developed post-consent. We are therefore unable to advise the Examination on the design of the proposed ANS or the number of nesting spaces it will provide.

[1] Natural England (2025) EN010130-002326-EN010130 506611 ODOW Appendix G5 - Natural England's End of Examination Position on Offshore Ornithology Compensation Deadline 6.pdf

1.3. Delivery and lead-in time

Natural England have commented in detail on these aspects in [REP3-055], [REP5-059] and [REP6-076].

Natural England note that the population modelling work presented by the Applicant in their Case for Reduction in Kittiwake Breeding Seasons for ANS Installation [REP4-085] and Project-Level Kittiwake Compensation Plan [REP6-011] suggests that the proposed measure may not be able to deliver full compensation within the Projects' lifetime. The Applicant has stated their commitment to continuing to maintain and monitor the ANS beyond the lifetime of the Projects, until such time as compensation requirements are fully delivered. Natural England welcome this commitment and note that it has been secured in the draft DCO that the ANS cannot be decommissioned without written permission from the Secretary of State (SoS) in consultation with the relevant SNCB. We consider that this provides the requisite security that the ANS would not be decommissioned prior to compensation being delivered, and therefore could extend beyond the Project's lifetime.

The Applicant has also presented a case for a reduction in lead-in time for the installation of the offshore ANS from four breeding seasons prior to operation to two [REP4-085]. Natural England advise that a reduction in lead in time must be considered specifically against the ecological risks arising from the DBS projects alone. Whilst Hornsea Three and Hornsea Four have received post-consent approval from the SoS for non-material changes to reduce the length of time their ANSs need to be in place before operation, these changes were deemed acceptable on the basis of the particular compensation measures proposed by those projects, and a robust evidence-based case that the changes would not result in significant additional impacts [REP3-055]. Therefore, these decisions do not automatically set a precedent that other projects proposing ANS can follow.

The Applicant's arguments for a reduction primarily centre around logistical constraints related to consenting and supply chain risks. Whilst we acknowledge these arguments and recognise the significant difficulties of construction at sea, they are not within Natural England's field of expertise to comment on. Ultimately, we consider arguments of this nature to be for the consideration of the decision-maker as part of the decision-making process, rather than ourselves. In that light, we note that guidance on compensatory measure provision emphasises the importance of compensation being in place and functioning at the point of impact, and that where this is not possible, delayed implementation should be addressed through the design of the measure, for example by providing a greater amount of compensation. We highlight that given the length of time predicted for the compensation to be delivered in full, it is important for the ANS to be in place as early as possible.

1.4. Onshore ANS

The Applicant has suggested the use of an existing onshore ANS at Gateshead as a supporting compensation measure or adaptive management. We note that the Applicant refers to this onshore

ANS as potentially having the capacity to deliver a portion of their compensation requirements and avoid the accrual of mortality debt. Natural England have consistently advised since Hornsea Four that we do not consider that further onshore ANS are likely to result in sufficient benefits to produce compensation, given the number and location of such structures already proposed by consented OWF projects. Whilst Natural England is not opposed to some nest spaces on the onshore ANS being retained as potential adaptive management, not least given its early installation, should the offshore ANS fail, we consider the potential benefits the onshore ANS could provide to be limited.

Table 2: Natural England's Summary position of compensation measures proposed for kittiwake

Kittiwake (FFC SPA) compensation: offshore artificial nesting structures (offANS)		
Overall confidence in the measure		Natural England consider that the measure has merit and is technically feasible, and note that it is the preferred measure in the Kittiwake Strategic Compensation Plan (KSCP). A location for delivering a structure has been identified, though needs to be secured. Remaining concerns are predominantly around scale of delivery. We consider that a single offshore ANS is unlikely to provide sufficient compensation or resilience for the Projects, should the collaborative approach fall through.
End of examination position		
Theoretical merit to deliver compensation		Natural England agree that the proposed measure has the potential to increase the number of recruits into the wider kittiwake population, although the scale of benefit to the impacted site and National Site Network will be indirect and is likely to be unquantifiable.
Technical feasibility		Logistics will be challenging offshore but viable options are likely to be available for providing new structures. The Applicant has provided an overview of species-specific design requirements with regards to ledge width, ledge surface, wall angle and overhangs, and nest site orientation and these appear broadly suitable for kittiwake. However, no designs (concept or detailed) have been submitted into the Examination, with the Applicant stating that final design will be developed post-consent.
Agreed compensation level		Whilst Natural England and the Applicant do not agree on the predicted impact or compensation level required, values have been provided in line with SNCB advice. The mean annual impact of the Projects combined on kittiwake at FFC SPA has been calculated as 191 birds (95% UCL 377). Using the H3pt2 method and the 95% UCL, this results in a compensation requirement of 2,086 breeding pairs of kittiwake at a 1:1 ratio. **Given the uncertainties associated with the proposed measures, the potential for indirect impacts on prey to intensify impacts on kittiwake (see Section 3 of Appendix G8), Natural England advise it would be necessary to scale the measures at a ratio of a minimum of 2:1 (sufficient space for 4,172 breeding pairs), and that there would be good justification for using a 3:1 ratio (sufficient space for 6,258 breeding pairs) should the lead-in time be reduced.**

Scale/extent of measure		The Applicant has stated that the design of their offANS design is scalable, so that the number of nesting spaces can be increased to meet any agreed compensation quantum. However, they have also stated that increasing the number of nest spaces beyond their current design base would likely affect the economic viability of the scheme. It is unclear to Natural England at this point what the upper limit of the Applicant's current design base is. Given the scale of the predicted impacts of the DBS Projects, Natural England consider that a single offshore ANS is unlikely to provide sufficient compensation for the Projects. Delivery of the full compensation requirements of the DBS Projects is therefore likely to be partly dependent on the success of the collaborative approach and the ability of an ODOW-led ANS to deliver a significant portion of the Projects' compensation requirements.
Timing: Deliverable before impact		The Applicant has presented a case for a reduction in lead-in time for the installation of the offshore ANS from four breeding seasons to two. Natural England have commented in detail on this issue in [REP3-055]. Our advice remains that ANS for kittiwake should be in place four breeding seasons before the Projects are operational, given that kittiwake do not breed until they are 4+ years old and therefore breeding recruits will not enter the biogeographic population until that point. We consider that a reduction in lead-in time for ANS installation should be considered a last resort and should only be agreed where robust evidence is provided to support confidence in the success of the measure. We also highlight that the need for prompt installation is demonstrated by the slow rates of colonisation shown at recently installed ANS, and by the Applicant's population modelling work which suggests that the proposed ANS may not be able to deliver full compensation within the Projects' lifetime. In addition, where colony establishment is occurring during years of operation, a mortality debt will accumulate until the target population/productivity is met.
Location of measure		The Applicant has now identified a preferred candidate site for the installation of their project-led ANS (6a). Natural England have expressed concerns regarding the proximity of this site to the area being progressed by ODOW for their project-led ANS, noting the added ecological resilience of having ANS structures in different locations. However we are generally satisfied that the location is appropriate, though note that there is the possibility of competition at this site with foraging kittiwake breeding at FFC SPA, as is suggested by recent kittiwake tracking data (Wischnewski et al 2017[2]). We understand that the Applicant is due to be submitting a Marine License Application for the ANS in the near future, which if granted would secure the location.

[2] Wischnewski S., Fox D.S., McCluskie A. and Wright L.J. 2017. Seabird tracking at the Flamborough and Filey Coast: Assessing the impacts of offshore wind turbines. Pilot study 2017 – Fieldwork report and recommendations. RSPB Centre for Conservation Science Report to Ørsted)

Long term implementation		The results of population modelling presented by the Applicant cast doubt on the ability of the Projects to fully compensate for their predicted impacts within the lifetime of the Projects. We therefore welcome the Applicant's stated commitment to continuing to maintain and monitor the ANS beyond the lifetime of the Projects, until such time as compensation requirements are fully delivered, and consider this to be appropriately secured. Natural England note the lack of specific detail within the Outline KCIMP [REP4-023] regarding adaptive management measures that could be adopted and their likely effectiveness. Natural England advise that subsequent versions of the KCIMP should provide further detail on the specific adaptive management measures that may be deployed, and their likely effectiveness, recognising that this may only be meaningful once the ANS designs are developed further.
Success criteria/Ability to prove additionality		As detailed in Section 3.2.2 of the introduction, Habitats Regulations Assessments have generally set the target or objective for the compensation to achieve with respect to the central impact value. We therefore consider the key success criteria for the measure would likely be the delivery of a sufficient number of breeding pairs with sufficiently high productivity to provide enough fledglings to ultimately result in 191 additional adult kittiwake entering the breeding pool per annum. This is a challenging requirement, particularly given the potential scenario of a single ANS. Natural England note the lack of specific detail within the Outline KCIMP (REP4-023) as regards monitoring of the ANS. However, we welcome the inclusion of productivity monitoring and colonisation monitoring as well as colony counts within the Outline KCIMP, and that remote camera techniques that are currently being trialled at the onshore ANS in Gateshead for application offshore.
Suitable as sole measure for target species		Natural England agree that, if designed, located, and scaled appropriately, provision of offshore ANS would be suitable as a sole compensatory measure for kittiwake.

2. Guillemot and Razorbill

2.1. Compensation requirements

2.1.1. Guillemot

The mean annual impact of the Projects combined on guillemot at FFC SPA has been calculated as 456 birds (95% UCL 878) according to the SNCB advised approach (See Appendix G8). The mean annual impact of the Projects combined on guillemot at the Farne Islands SPA has been calculated as 13 birds (95% UCL 18.3) (see Appendix G8). The Applicant has calculated the compensation requirements based on both the mean and 95% UCL impact values, using the Hornsea 4 (H4) method. Natural England agree that the H4 method is appropriate for guillemot. The results of the Applicant's calculations are presented for a range of compensation ratios in Table 3. The combined requirements for both SPAs are presented in Table 4.

Table 3. Compensation requirements of DBS (East and West) for FFC SPA and Farne Islands SPA guillemot, calculated using the H4 method for a mean impact value of 456 birds (95% UCL 878 birds) and 13 birds (95% UCL 18.3 birds) for FFC SPA and Farne Islands SPA respectively. [REP6-013].

	Number of breeding pairs of guillemot required to compensate impact (FFC SPA)		Number of breeding pairs of guillemot required to compensate impact (Farne Islands SPA)	
Compensation ratio	**Mean impact value**	**95% UCL impact value**	**Mean impact value**	**95% UCL impact value**
1:1	2015	3881	57	81
2:1	4029	7762	115	162
3:1	6044	11,643	172	243

Table 4. Compensation requirements of DBS (East and West) for FFC SPA and Farne Islands SPA guillemot combined, calculated using the H4 method for a mean impact value of 469 birds (95% UCL 896.3 birds). [REP6-013].

	Total number of breeding pairs of guillemot required to compensate impact	
Compensation ratio	**Mean impact value**	**95% UCL impact value**
1:1	2072	3962
2:1	4144	7924
3:1	6216	11,886

2.1.2. Razorbill

The mean annual impact of the Projects combined on razorbill at FFC SPA has been calculated as 140 birds (95% UCL 430 (see Appendix G8). The Applicant has calculated the compensation requirements based on both the mean and 95% UCL impact values, using the Hornsea 4 (H4) method [REP6-011]. Natural England agree that the H4 method is appropriate for razorbill. The results of the Applicant's calculations are presented for a range of compensation ratios in Table 5.

Table 5. Compensation requirements of Dogger Bank South (East and West) for FFC SPA razorbill, calculated using the H4 method for a mean impact value of 140 birds (95% UCL 430 birds). [REP6-013]

	Number of breeding pairs of razorbill required to compensate impact	
Compensation ratio	**Mean impact value**	**95% UCL impact value**
1:1	545	1669
2:1	1091	3337
3:1	1636	5006

2.2. Compensatory measure: Predator eradication

The Applicant has proposed predator eradication/control as their primary measure to compensate for the predicted impacts of the Projects on guillemot at FFC SPA and the Farne Islands SPA and on razorbill at FFC SPA. The site selection process to identify a suitable site for predator eradication compensation has progressed throughout the Examination. Of the original sites for Project-led delivery included in the Project's Application, only Middle Mouse remains in scope. However, Natural England retains its concerns regarding the lack of evidence for rat presence on the island, and the capacity available at this location is unlikely to be sufficient to meet the Project's requirements. The Applicant has stated that they have revisited their longlist of original sites and have engaged with landowners regarding locations in Scotland, however a site for Project-led delivery cannot be considered to be sufficiently in scope or secured at this time.

Natural England welcome the Applicant's inclusion of the Isles of Scilly as a potential site, and note that this is the only location that we consider remains fully in scope. Natural England agree that the Isles of Scilly has potential to deliver sufficient guillemot and razorbill compensation to meet the requirements of the Projects, however it is important to note that it is the preference of The Wildlife Trusts that the Isles of Scilly is progressed as a strategic measure via the MRF, rather than as a Project-led measure. A delivery mechanism for the Isles of Scilly has therefore yet to be established and secured, although a Task & Finish Group has been set up to progress this.

2.3. Delivery and lead-in time

The Applicant originally stated their intention to begin predator eradication two years in advance of turbine installation. However, the need to wait for the development of the Isles of Scilly eradication as a strategic measure means that this may not be possible. We further note that it may take longer than two years to complete an eradication and that implementation before impact is not analogous to delivering compensation before impact. There are therefore potential consequences relating to the accrual of mortality debt. The Applicant maintain that an eradication on the Isles of Scilly will provide sufficient overcompensation to account for any delay in implementation, however we have raised concerns regarding the methods used by the Applicant to estimate the compensation potential of the site [REP5-059, REP6-076]. Natural England therefore urge some caution regarding estimates of the compensation potential, and particularly over-compensation potential, of the site until the results of the relevant work being undertaken by the Isles of Scilly Seabird Recovery Partnership and the Isles of Scilly Task and Finish group become available.

Table 6: Natural England's Summary position of compensation measures proposed for guillemot (FFC SPA and Farne Islands SPA) and razorbill (FFC SPA).

Guillemot (FFC SPA and Farne Islands SPA) and Razorbill (FFC SPA) compensation: Predator eradication on the Isles of Scilly		
Overall confidence in the measure		Natural England consider that delivering compensation for guillemot and razorbill via predator eradication is theoretically possible, and that the Isles of Scilly has considerable potential as a compensation eradication site. However, the deliverability of this measure depends on a strategic approach which is currently still being developed.
End of Examination Position		
Theoretical merit to deliver compensation		Removing predators such as brown rat could allow for colonisation of new areas or reduce predation pressure on existing colonies, and thus increase both breeding populations and productivity of seabirds. However, we do highlight that evidence of it being effective for guillemot and razorbill is limited, as these species have not been the target beneficiary for previous predator eradications.
Technical feasibility		Proven techniques exist for the eradication of rats on islands, and ongoing biosecurity measures can maintain rat free status. However, eradication programs are challenging, can be prone to delays, and other issues arising from unforeseen circumstances.
Agreed compensation level		Whilst Natural England and the Applicant do not agree on the appropriate impact or compensation level required, values have been provided in line with SNCB advice. <u>Guillemot:</u> The mean annual impact of the Projects combined on guillemot at FFC SPA has been calculated as 456 birds (95% UCL 878), while the mean annual impact of the Projects combined on guillemot at the Farne Islands SPA has been calculated as 13 birds (95%

		UCL 18.3) Using the H4 method and the 95% UCL, this results in a compensation requirement for both SPAs of 3,962 breeding pairs of guillemot at a 1:1 ratio (see Tables 3 & 4 above). **Given the uncertainties associated with the response of guillemot to the proposed measures, the potential for indirect impacts on prey to intensify impacts (see Appendix G8 Section 3), Natural England consider it appropriate to scale the provision of the measures at a minimum ratio of 2:1 (sufficient space for 7,924 breeding pairs of guillemot), and in the light of the likely implementation timetable, invite the Secretary of State to consider whether a ratio of 3:1 is warranted.** <u>Razorbill:</u> The mean annual impact of the Projects combined on razorbill at FFC SPA has been calculated as 140 birds (95% UCL 430). Using the Hornsea 4 (H4) method and the 95% UCL, this results in a compensation requirement of 1669 breeding pairs of razorbill at a 1:1 ratio (see Table 5). **Given the uncertainties associated with the response of razorbill to the proposed measures, and the potential for indirect impacts on prey to intensify impacts, Natural England consider it appropriate to scale the provision of the measures at a minimum ratio of 2:1 (sufficient space for 3,337 breeding pairs of razorbill), and in the light of the likely implementation timetable, invite the Secretary of State to consider whether a ratio of 3:1 is warranted.**
Scale/extent of measure		The Applicant has presented an estimation of the compensation potential of the Isles of Scilly for guillemot and razorbill. However, Natural England have raised several concerns relating to the methods used to arrive at these estimates. These are related to likely nesting densities of guillemot and razorbill, the assessment of habitat potential for razorbill, the assessment of the potential of three-dimensional habitats, and likely colony growth rates [REP5-059, REP6-076]. As such, we cannot agree with the Applicant's statements regarding the potential of the site to overcompensate for the Projects' impacts. However, Natural England agree that the Isles of Scilly has significant potential as a compensation site and consider that it may have the potential to deliver sufficient compensation to meet the requirements of the Projects.
Timing: Deliverable before impact		The Applicant originally stated their intention to begin predator eradication two years in advance of turbine installation. However, the need to wait for the development of the Isles of Scilly eradication as a strategic measure means that this may not be possible, and it cannot currently be guaranteed that Scilly will provide sufficient overcompensation to account for any delay in implementation.

		For every year that the Projects are operational without compensation in place, the full compensation target for each species will need to be added to the Projects' total compensation requirements. We highlight the need to factor in any mortality debt accrued before compensation measures begin to deliver sufficient benefits and note that it is currently unclear to what extent this measure could account for the build-up of mortality debt.
Location of measure		A location for Project-led delivery cannot be considered to be sufficiently in scope or secured at this time. Natural England welcome the Applicant's inclusion of the Isles of Scilly as a potential site and agree is has considerable potential. While we acknowledge that the issues with delivery of strategic compensation are outside of the Applicant's control, we note that a delivery mechanism for compensation on the Isles of Scilly has yet to be established and secured, although a Task & Finish Group has been set up to achieve this. While guillemot and razorbill do not currently occur in numbers to meet either of the criteria to be included as named assemblage components in the Isles of Scilly SPA seabird assemblage (national importance and over 2,000 individuals), they nevertheless form part of the SPA's seabird assemblage and contribute to its abundance and diversity. As such, any additional breeding guillemot and razorbill on the Isles of Scilly that arise as part of the strategic approach will directly benefit the National Site Network and fall under the protective provisions of the Habitats Regulations. Furthermore, it is possible that a successful eradication campaign delivered at scale could boost numbers to the extent that guillemot and razorbill become named assemblage components in the future.
Long term implementation		Natural England welcome the inclusion of predator monitoring and the implementation of biosecurity measures within the Outline Guillemot [and Razorbill] Compensation Implementation and Monitoring Plan. We highlight that the success of the measure will depend on adequate biosecurity measures post-eradication, including rapid response should any incursions be detected. Projections of colony growth rates undertaken by the Applicant suggest that it could take longer than the lifetime of the Projects to sufficiently compensate for the Projects' impacts. Natural England advise that it may therefore be necessary for the Applicant to continue to maintain biosecurity measures and monitoring on the Isles of Scilly beyond the lifetime of the Projects. The Applicant has proposed two potential adaptive management measures for guillemot and razorbill: offshore ANS and bycatch reduction. Natural England note that there is currently a lack of evidence demonstrating the likely effectiveness of offshore ANS

		for guillemot and razorbill. However, we agree that this measure has potential as adaptive management, and would welcome the Applicant including scope for it in their kittiwake ANS designs. Natural England welcome the Applicant's commitment to implementing bycatch reduction measures as a compensatory measure if "*robust evidence demonstrating the effectiveness of techniques to reduce the bycatch of auks became available*." We note that such evidence does not currently exist, but should it become available, we agree that this may be a suitable adaptive management measure.
Success criteria/Ability to prove additionality		As detailed in Section 3.2.2 of the introduction, Habitats Regulations Assessments have generally set the target or objective for the compensation to achieve with respect to the central impact value. We therefore consider the key success criteria for the measure would likely be the delivery of a sufficient number of breeding pairs with sufficiently high productivity to provide enough fledglings to produce 469 adult guillemot and 140 adult razorbill per annum. Natural England welcome the inclusion of both predator and seabird monitoring in the Outline Guillemot [and Razorbill] Compensation Implementation and Monitoring Plan (G[R]IMP) [REP4-023]. We also welcome the inclusion of productivity monitoring as well as colony counts. We consider that increased productivity and increased abundance of both guillemot and razorbill will be essential measures of success. We advise that subsequent versions of the G[R]IMP should provide further detail on monitoring, reporting of monitoring results, and potential triggers for deployment of adaptive management measures.
Suitable as sole measure for target species		Although there are grounds for optimism, there remains some uncertainty regarding the ability of predator eradication to deliver benefits to guillemot and razorbill populations at the scale required. We therefore welcome the Applicant's commitment to exploring the potential of ANS provision and, if viable techniques emerge, bycatch reduction, which could potentially provide useful adaptive management measures.
Key uncertainties		
Delivery mechanism		While we acknowledge that the issues with delivery of strategic compensation are outside of the Applicant's control, we note that a delivery mechanism for compensation on the isles of Scilly has yet to be established and secured. Outstanding concerns therefore remain relating to the timescales for beginning and achieving compensation, as well as the compensation potential of the site, with potential consequences for the accrual of mortality debt.

Annex 2: Natural England check list for compensatory measure submissions

Natural England has developed a checklist of those aspects of compensatory measures that need to be described in detail when developers are submitting or updating applications where impacts on Marine Protected Areas (MPAs) are anticipated. Whilst not exhaustive, it lists key areas where sufficient detail is needed to provide the Secretary of State with appropriate confidence that compensatory measures can be secured.

a) What, where, when: clear and detailed statements regarding the location and design of the proposal.

b) Why and how: ecological evidence to demonstrate compensation for the impacted site feature is deliverable in the proposed locations

c) For measures on land, demonstrate that on ground construction deliverability is secured and not just the requirement to deliver in the Development Consent Order (DCO) e.g. landowner agreement is in place. For measures at sea, demonstrate that measures have been secured e.g. agreements with other sea or seabed users.

d) Policy/legislative mechanism for delivering the compensation (where needed)

e) Agreed DCO/Deemed Marine Licence (DML) conditions

f) Clear aims and objectives of the compensation

g) Mechanism for further commitments if the original compensation objectives are not met – i.e. adaptive management

h) Clear governance proposals for the post-consent phase – we do not consider simply proposing a steering group is sufficient

i) Ensure development of compensatory measures is open and transparent as a matter of public interest, including how information on the compensation would be publicly available

j) Timescales for implementation especially where compensation is part of a strategic project, including how timescales relate to the ecological impacts from the development

k) Commitments to ongoing monitoring of measure performance against specified success criteria

l) Proposals for ongoing ‘sign off’ procedure for implementing compensation measures throughout the lifetime of the project, including implementing feedback loops from monitoring.

m) Continued annual management of the compensation area including to ensure other factors are not hindering the success of the compensation e.g. changes in habitat, increased disturbance as a result of subsequent plans/projects.