



Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects

Appendix 1 - Compensatory Measures Overview

August 2022
Document Reference: 5.5.1
APFP Regulation: 5(2)(g)

Title: Sheringham Shoal and Dudgeon Offshore Wind Farm Extension Projects DCO Application Appendix 1 Compensatory Measures Overview	
PINS Document no.: 5.5.1	
Document no.: C282-RH-Z-GA-00170	
Date:	Classification
22nd Aug 2022	Final
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Table of Contents

COMPENSATORY MEASURES OVERVIEW	6
5.1 Introduction.....	6
5.2 Potential for Adverse Effect.....	7
5.3 Consultation	8
5.4 The Applicant’s Approach to Developing Compensatory Measures.....	12
5.5 Guide to the Derogation and Compensation Application Documents.....	15
5.6 Scope of the Compensation Documents and Outline Plans	22
5.7 Overview of the Compensatory Measures and Delivery Model.....	22
5.8 References	24

Table of Tables

Table 5-1-1: Overview of predicted impacts from SEP and DEP and associated compensation proposals	7
Table 5-1-2: Timeline and Description of Activities / Tasks Undertaken which Informed the Identification and Maturation of Compensatory Measures	13
Table 5-1-3: Overarching and Supporting Compensation Documents	17
Table 5-1-4: Sandwich Tern Compensation Documents.....	18
Table 5-1-5: Kittiwake Compensation Documents	19
Table 5-1-6: Gannet, Guillemot and Razorbill Compensation Documents	20
Table 5-1-7: Summary of Proposed Compensatory Measures and Delivery Model.....	23

Glossary of Acronyms

DCO	Development Consent Order
Defra	Department for the Environment and Rural Affairs
DEL	Dudgeon Extension Limited
DEP	Dudgeon Offshore Wind Farm Extension Project
DOW	Dudgeon Offshore Wind Farm
EC	European Commission
EIA	Environmental Impact Assessment
EPP	Evidence Plan Process
ETG	Expert Topic Group
EU	European Union
FFC	Flamborough and Filey Coast
GW	Greater Wash
HRA	Habitats Regulations Assessment
IROPI	Imperative Reasons of Overriding Public Interest
MCAA	Marine and Coastal Access Act
MCZ	Marine Conservation Zone
MEEB	Measures of Equivalent Environmental Benefit
MW	Megawatts
NNC	North Norfolk Coast
OWF	Offshore Wind Farm
OWIC	Offshore Wind Industry Council
PEIR	Preliminary Environmental Information Report
RIAA	Report to Inform Appropriate Assessment
SEL	Scira Extension Limited
SEP	Sheringham Shoal Offshore Wind Farm Extension Project
SoS	Secretary of State
SOW	Sheringham Shoal Offshore Wind Farm
SPA	Special Protection Area
UK	United Kingdom

Glossary of Terms

Dudgeon Offshore Wind Farm Extension Project (DEP)	The Dudgeon Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure
European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive. This includes candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, potential Special Protection Areas, Special Protection Areas, Ramsar sites, proposed Ramsar sites and sites compensating for damage to a European site and is defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017, although some of the sites listed here are afforded equivalent policy protection under the National Planning Policy Framework (2021) (paragraph 176) and joint Defra/Welsh Government/Natural England/NRW Guidance (February 2021).
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the EIA and HRA for certain topics.
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.
Sheringham Shoal Offshore Wind Farm Extension Project (SEP)	The Sheringham Shoal Offshore Wind Farm Extension onshore and offshore sites including all onshore and offshore infrastructure.
The Applicant	Equinor New Energy Limited. As the owners of SEP and DEP, Scira Extension Limited (SEL) and Dudgeon Extension Limited (DEL) are the named undertakers that have the benefit of the Development Consent Order. References in this document to obligations on, or commitments by, 'the Applicant' are given on behalf of SEL and DEL as the undertakers of SEP and DEP.

COMPENSATORY MEASURES OVERVIEW

5.1 Introduction

5.1.1 Background

1. The Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP) are proposed extensions to the existing Sheringham Shoal Offshore Wind Farm (SOW) and Dudgeon Offshore Wind Farm (DOW). When operational, SEP and DEP would have the potential to generate renewable power for around 785,000 United Kingdom (UK) homes from up to 23 wind turbines at SEP and up to 30 wind turbines at DEP.
2. It should be noted that, as owners of SEP and DEP, Scira Extension Limited (SEL) and Dudgeon Extension Limited (DEL) are the named undertakers that have the benefit of the DCO. References throughout this document and any supporting annexes to obligations on, or commitments by, 'the Applicant' are given on behalf of SEL and DEL as the undertakers of SEP and DEP.
3. Equinor New Energy Limited (the Applicant) is submitting an application for a Development Consent Order (DCO) including a **Report to Inform Appropriate Assessment (RIAA)** (document reference 5.4), which provides the information necessary for the competent authority to undertake an appropriate assessment to determine if there is any adverse effect on integrity (AEoI) on the national site network.
4. With respect to certain ornithological features, the Applicant has prepared information describing proposed compensatory measures, which are included as part of its **Habitats Regulations Derogation: Provision of Evidence** (document reference 5.5) (which also sets out the Applicant's submission in relation to alternative solutions and Imperative Reasons of Overriding Public Interest (IROPI)). The proposals have been prepared in response to the outcomes of the Applicant's **RIAA** (document reference 5.4), extensive stakeholder consultation and the emerging outcomes from other UK offshore wind farm (OWF) DCO applications and decisions. The ornithological features and their respective sites are:
 - Sandwich tern from the North Norfolk Coast (NNC) Special Protection Area (SPA) and the Greater Wash (GW) SPA. The Applicant's **RIAA** (document reference 5.4) concludes that AEoI cannot be ruled out as a result of predicted mortality due to the combined effects of collision and displacement, when considered in-combination with other OWFs. As such, the Applicant has provided compensatory measures as part of its consent application to compensate for the predicted effects from SEP and DEP.
 - Kittiwake from the Flamborough and Filey Coast (FFC) SPA. The Applicant's **RIAA** (document reference 5.4) concludes that AEoI cannot be ruled out as a result of predicted mortality due to collision risk, when considered in-combination with other OWFs. As such, the Applicant has provided compensatory measures as part of its consent application to compensate for the predicted effects from SEP and DEP.

- Gannet, Guillemot and Razorbill from FFC SPA. The Applicant's **RIAA** (document reference 5.4) concludes that there will be no AEol as a result of predicted mortality due to combined displacement and collision risk (gannet) and displacement (guillemot and razorbill), either alone or in-combination with other OWFs. In the event that the Secretary of State (SoS) is unable to reach a conclusion of no AEol with respect to these features, the Applicant has developed without prejudice compensatory measures that could be applied to provide compensation for the predicted effects.

5.1.2 Purpose of Document

5. This document provides a guide to the suite of documents prepared by the Applicant relating to its proposed compensatory measures. This includes an overview of the compensatory measures themselves and the process followed in their development. This document is also intended to provide signposting to other areas of the application where further information and evidence in support of the Applicant's compensation proposals can be found.
6. For clarity, the Applicant is also providing a without prejudice derogation case including proposals for measures of equivalent environmental benefit (MEEB) under the Marine and Coastal Access Act 2009 (MCAA) with respect to the Cromer Shoal Chalk Beds Marine Conservation Zone (MCZ). Matters relating to MEEB are addressed in **Marine and Coastal Access Act Derogation: Provision of Evidence** (document reference 5.7).

5.2 Potential for Adverse Effect

7. An overview of the predicted impacts from SEP and DEP and the associated scale of compensation proposed is provided in **Table 5-1-1**. In many cases the scale of impact described in the **RIAA** (document reference 5.4) is given as a range. The figures included in **Table 5-1-1** represent the worst-case and are those to which the scale of compensation has been linked. Where applicable, these describe the upper 95% confidence interval collision rates, in line with the relevant Statutory Nature Conservation Body guidance. Further details, including how the proposals relate to the different project development scenarios, are provided in the relevant compensation documents, as set out in **Section 5.6**.

Table 5-1-1: Overview of predicted impacts from SEP and DEP and associated compensation proposals

Site	Feature	Impact Mechanism(s)	Scale of Impact	Scale of Compensation
NNC SPA and GW SPA	Sandwich tern	Collision and displacement	Annual total mortality of up to 28 birds per year	Restoring lost breeding range to make the population more robust to local impacts, and improvements to productivity to provide a gain equivalent to 28 adult birds per year.
FFC SPA	Kittiwake	Collision	Annual total collision rate of up to 24 birds per year	Increased production of at least 48 chicks fledged per year, achieved by facilitating the move of 48 pairs of kittiwakes from nest sites that fail to

Site	Feature	Impact Mechanism(s)	Scale of Impact	Scale of Compensation
				nest sites that achieve average breeding success.
	Gannet	Collision and displacement	Annual total mortality of up to 10 birds per year	10 birds per year
	Guillemot	Displacement	Annual total mortality of up to 6 birds per year	6 birds per year
	Razorbill	Displacement	Annual total mortality of up to 0.5 birds per year	0.5 birds per year

5.3 Consultation

8. The Applicant has given early and detailed consideration to the requirement for compensatory measures and has consulted with a range of stakeholders at regular intervals throughout the pre-application process. Feedback from the consultation has been used to shape the development of the compensatory measures. This is in line with the recommendations in Defra *et al.*, 2021 which states:

“Applicants should recognise the possible need for compensation early on in the process and should discuss all potential compensatory measures with the responsible authority at an early stage of development. These discussions will be exploratory in nature to assist the Applicant in demonstrating the potential efficacy and feasibility of compensatory measures to regulators. It is not the responsibility of the responsible authority to provide options for potential compensatory measures, but it can provide guidance on which activities may be considered to be sufficient in terms of compensation.”
9. A detailed record of engagement is provided within **Annex 1D: Record of HRA Derogation Consultation** (document reference 5.5.1.4), the **Consultation Report** (document reference 5.1) and its supporting appendices, namely the **Evidence Plan** (document reference 5.2.1) including Expert Topic Group (ETG) meeting minutes and agreement logs. The process has involved the iterative development of the proposals through detailed consultation with relevant stakeholders as outlined below and in **Plate 5-1-1**.
10. Preliminary meetings with stakeholders were held in late 2020 and early 2021 to help inform the development of a strategy for compensation. An HRA Ornithology Compensation ETG was set up as a part of the Evidence Plan Process (EPP) with compensatory measures also being discussed at earlier stages of the pre-application process through the Offshore Ornithology ETG meetings.

11. In March 2021 the Applicant provided ETG members with an initial review of potential compensatory measures for Sandwich tern and kittiwake (**Annex 1A: Initial Review of Compensatory Measures for Sandwich Tern and Kittiwake** (document reference 5.5.1.1)). This document was developed to inform early pre-application consultation with ETG members and was provided ahead of the Section 42 consultation on the Preliminary Environmental Information Report (PEIR) and the draft Information for HRA Report to maximise the timeframe available for discussions on compensatory measures in the pre-application period.
12. Further supporting documents were provided to ETG members from late 2021 through to summer 2022 (see **Annex 1D Record of HRA Derogation Consultation** (document reference 5.5.1.4) for details).
13. Informal non-statutory consultation has also been undertaken with participants of the HRA Ornithology Compensation ETG to further inform the Applicant's approach to compensatory measures specifically in identifying the measures that would be most ecologically effective and feasible, as well as appropriate locations at which to deliver these measures.
14. In addition, consultation with key stakeholders (including local stakeholders) relevant to each of the compensatory measures has been carried out to further inform the site selection process as well as identify any potential conflicts or barriers to securing the necessary land and permissions to deliver the proposed measures. This engagement was undertaken on a stakeholder-by-stakeholder basis rather than a broader non-statutory targeted consultation, recognising the very specific localities and the individual nature of the measures identified.
15. This approach to consultation has allowed for very focussed yet open discussions and has provided stakeholders with the opportunity to feed into the development of the compensatory measures. This has involved both general monthly 'catch-up' meetings and targeted meetings to discuss compensation matters, including with Royal Society for the Protection of Birds (RSPB) (including RSPB's Bycatch Prevention Team), National Trust, the Marine Management Organisation, Crown Estate Scotland, Marine Scotland, NatureScot, Gateshead Council, East Suffolk Council, Lowestoft Kittiwake Partnership, The Wash and North Norfolk Marine Partnership, North Eastern Inshore Fishery and Conservation Authority and Northumberland Inshore Fishery and Conservation Authority.
16. Other relevant consultation has included:
 - Meetings with the Planning Inspectorate throughout the pre-application process in order to appraise them of the intended approach to the derogation case for the Projects and the development of the associated compensatory measures.
 - Opportunities for the development of strategic approaches to compensation were discussed directly with Defra in four meetings between June 2021 and July 2022.
 - At the strategic level, Equinor is engaged in the Offshore Wind Industry Council (OWIC) Derogation Subgroup which is seeking to support industry in working towards strategic compensation delivery. This is taking place in the background to the SEP and DEP consenting process and, where possible, the Applicant has attempted to align its compensatory proposals with emerging developments at the industry level.

17. As noted above, **Annex 1D: Record of HRA Derogation Consultation** (document reference: 5.5.1.4) should be referred to for a more detailed account of all consultation that has been undertaken in relation to the development of compensatory measures. That document sets out key responses and feedback from stakeholders and also includes the regard that has been given to these in the development of the Applicant's compensation proposals. That document should be read in conjunction with the **Consultation Report** (document reference 5.1) and associated appendices which provide specific information (e.g. ETG meetings and agreement logs) related to statutory consultation requirements and non-statutory consultation undertaken as part of the EPP.

Derogation Consultation

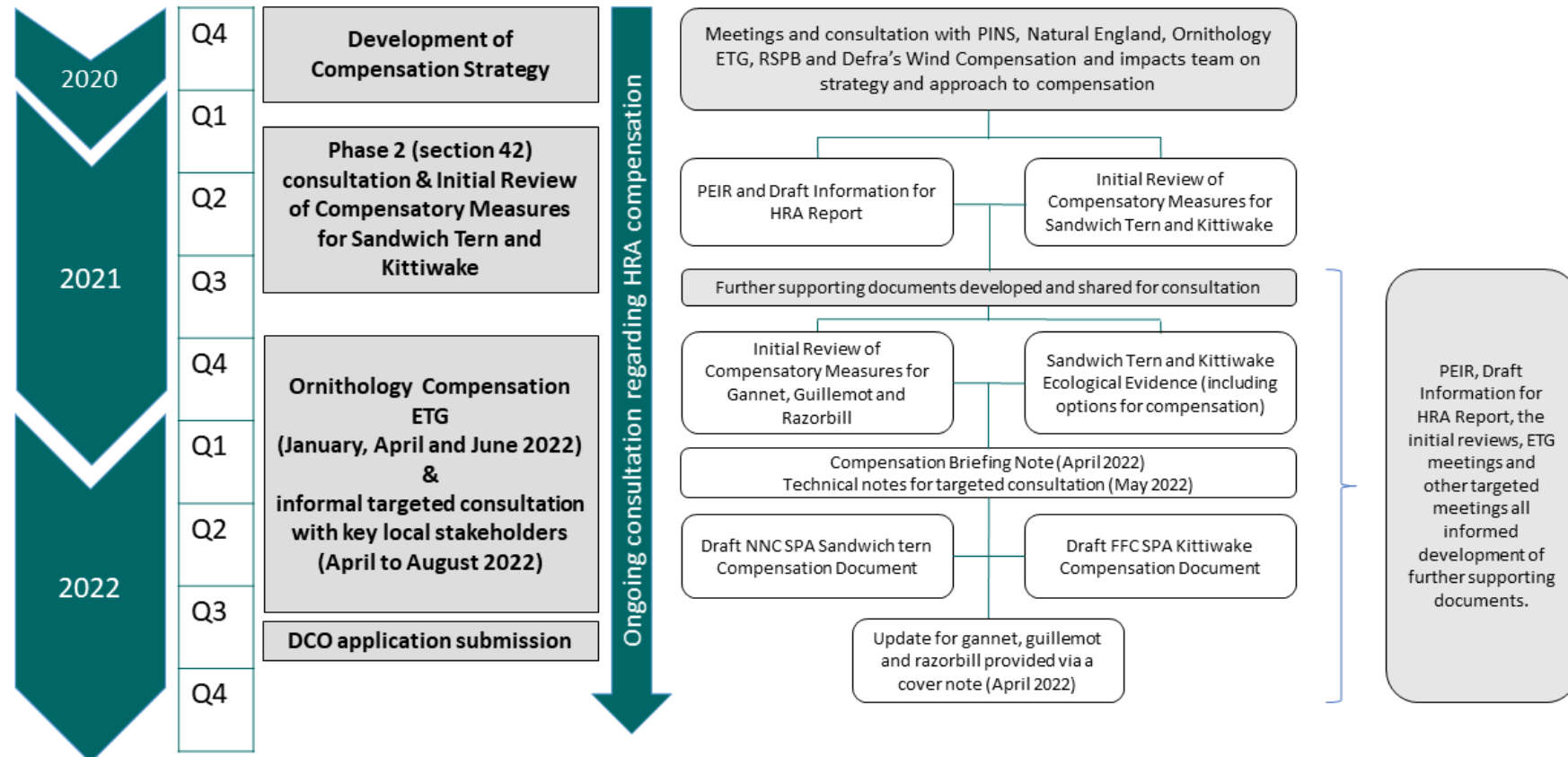


Plate 5-1-1: Overview of Pre-Application Consultation on Derogation and Compensatory Measures

5.4 The Applicant's Approach to Developing Compensatory Measures

18. The timeline of activities which were undertaken during the identification and maturation of the Applicant's proposed compensatory measures is outlined in [Table 5-1-2](#).
19. The compensatory measures were considered in the context of three different delivery models, including project-led, strategic and collaborative measures. The delivery models reflect how the Applicant considers each measure could be most feasibly, effectively and proportionately delivered, relative to the Projects' predicted impacts whilst also maximising benefits to the national site network.
20. Project-led measures represent the principal compensatory measures proposed by the Applicant and are considered (if required) to be able to **fully compensate for the potential impacts from SEP and DEP**. Where possible, a package of project-led measures have been put forward for each species, as advocated by stakeholders, to help respond to any uncertainties in the delivery or implementation of each of the proposed measures when considered on their own, and to add resilience to the overall approach. Where only one project-led measure is proposed, the Applicant has explored other means of addressing uncertainty, for example through application of a higher ratio or through the inclusion of more than one site for implementation of the measures. Validation of project-led measures and potential sites was undertaken throughout the development of the measures in discussion with relevant stakeholders to ensure they could be implemented and secured.
21. Collaborative and strategic measures are also included within the compensation proposals as alternative options that may become available within the necessary timescales for SEP and DEP and thus, could feed into the Applicant's approach to compensatory measures as well as any future adaptive management requirements. This approach seeks to align the Applicant's proposals as much as possible with emerging developments in the external context with respect to more collaborative and/or strategic delivery of compensation, whilst also ensuring that project-led measures are able to be taken forward, should those collaborative/strategic options not become available.
22. With respect to strategic measures, it should be noted that whilst prey enhancement is widely considered to be the most ecological effective measure for compensation for Sandwich tern, kittiwake, guillemot and razorbill, the Applicant has been unable to identify a way in which this measure could be secured as compensation for the predicted impacts of SEP and DEP. Nonetheless, the Applicant advocates strongly for this measure to be considered by the UK Government at the strategic level and is committed to supporting any future developments with respect to this. Further details are provided in [Strategic and Collaborative Approaches to Compensation and Measures of Equivalent Environmental Benefit](#) (document reference 5.8).
23. The detail of the measures proposed and the process for their selection is provided in [Appendix 2: Sandwich Tern Compensation Document](#) (document reference 5.5.2), [Appendix 3: Kittiwake Compensation Document](#) (document reference 5.5.3) and [Appendix 4: Gannet, Guillemot and Razorbill Compensation Document](#) (document reference 5.5.4) and an overview is provided in [Section 5.7](#).

Table 5-1-2: Timeline and Description of Activities / Tasks Undertaken which Informed the Identification and Maturation of Compensatory Measures

Activity / Task (date started)	Description
Initial review of compensatory measures for Sandwich tern and kittiwake (March 2021)	Potential compensatory measures for Sandwich tern and kittiwake were considered in an initial review provided in Annex 1A: Initial Review of Compensatory Measures for Sandwich Tern and Kittiwake . This built on the measures that had been identified in the Furness <i>et al.</i> (2013) evidence review to support the identification of potential conservation measures for selected species of seabirds. It was consulted on with the ETG in March 2021.
Identification of potential strategic compensatory measures (May 2021)	Prey enhancement was identified as being potentially suitable at this stage for Sandwich tern and kittiwake (and in November 2021 for guillemot and razorbill), but was not short listed as a project-led measure, recognising that it would need to be delivered as part of a strategic approach led by Government. Despite this, the Applicant continued to engage with Defra directly and via the OWIC Derogation Subgroup, to further explore how prey enhancement could be taken forward strategically with support from industry. See Strategic and Collaborative Approaches to Compensation and Measures of Equivalent Environmental Benefit (document reference 5.8).
Widening of scope for Sandwich tern (May 2021)	Part of the May 2021 advice received from Natural England in response to the Applicant's initial review of compensatory measures in March 2021 led to a widening in the scope of the further review of compensation options for Sandwich tern to ensure that potential opportunities outside of NNC SPA were also considered (see details in Table 6-1 of Appendix 2 Sandwich Tern Compensation Document).
Initial review of compensatory measures for gannet, guillemot and razorbill (November 2021)	Potential compensatory measures for gannet, guillemot and razorbill were considered in the initial review provided in Annex 1C: Initial Review of Compensatory Measures for Gannet, Guillemot and Razorbill . This built on the evidence in Furness <i>et al.</i> (2013) and was consulted on with the ETG in November 2021.
Gathering of ecological evidence for Sandwich tern and kittiwake to inform emerging proposals (November 2021)	Accounting for feedback received from stakeholders on the measures presented in the initial review described above, the Applicant commissioned a further review of compensation options (Annex 1B: Sandwich Tern and Kittiwake Ecological Evidence (document reference 5.5.1.2)). This was aimed at supporting an objective evidence based assessment of the emerging compensation proposals. It was consulted on with the ETG in November 2021 and discussed at the ETG meeting held in January 2022.

Activity / Task (date started)	Description
Identification of initial preferred measures for Sandwich tern and kittiwake (January 2022)	<p>Following consultation with stakeholders on the review of ecological evidence described above, the Applicant narrowed down its preferred project-led measures for Sandwich tern and kittiwake for further development. These measures became the focus of the subsequent ETG discussions and further targeted consultation undertaken with stakeholders as described in the rows below.</p> <p>As described above, prey enhancement was also retained as being potentially suitable for both species, where delivered as part of a strategic approach led by Government.</p>
Further refinement of gannet, guillemot and razorbill proposals (January 2022)	<p>Subsequent to discussions with stakeholders in the January 2022 ETG and alongside the emerging outcomes from other OWF projects, the development of the compensatory measures for gannet, guillemot and razorbill was refocused from those that had been considered in the November 2021 initial review.</p>
Selection of preferred strategic compensatory measures (April 2022)	<p>Following consultation with stakeholders (ETG meeting held in April 2022, see Section 5.3), prey enhancement as part of an ecosystem-based management approach was identified to be the most effective means of increasing breeding success for Sandwich tern, kittiwake, guillemot and razorbill. Further details are set out in Strategic and Collaborative Approaches to Compensation and Measures of Equivalent Environmental Benefit (document reference 5.8).</p>
<p>Selection and further refinement of preferred project-led compensatory measures</p> <p>Confirmation of measures to be explored for potential collaborative delivery</p> <p>(April 2022 to July 2022)</p>	<p>The selection and refinement of the preferred project-led measures was informed by two further ETG meetings held in April and June 2022. The April 2022 meeting was preceded by the submission of a briefing note that shared the main updates in the development of all of the proposed measures since the last round of consultation to enable more targeted engagement around the key remaining issues and questions. The June 2022 meeting was preceded by the submission of the draft project-led proposals for Sandwich tern and kittiwake to enable review against Natural England's checklist for what such proposals should seek to address. An update on the development of the measures proposed for gannet, guillemot and razorbill was also provided.</p>

5.5 Guide to the Derogation and Compensation Application Documents

24. A range of different documents have been produced by the Applicant describing the detail of the compensatory measures proposed. An overview of how these fit within the wider framework of documents submitted with the DCO application that are of particular relevance to the proposals for compensation is provided in **Plate 5-1-2**.

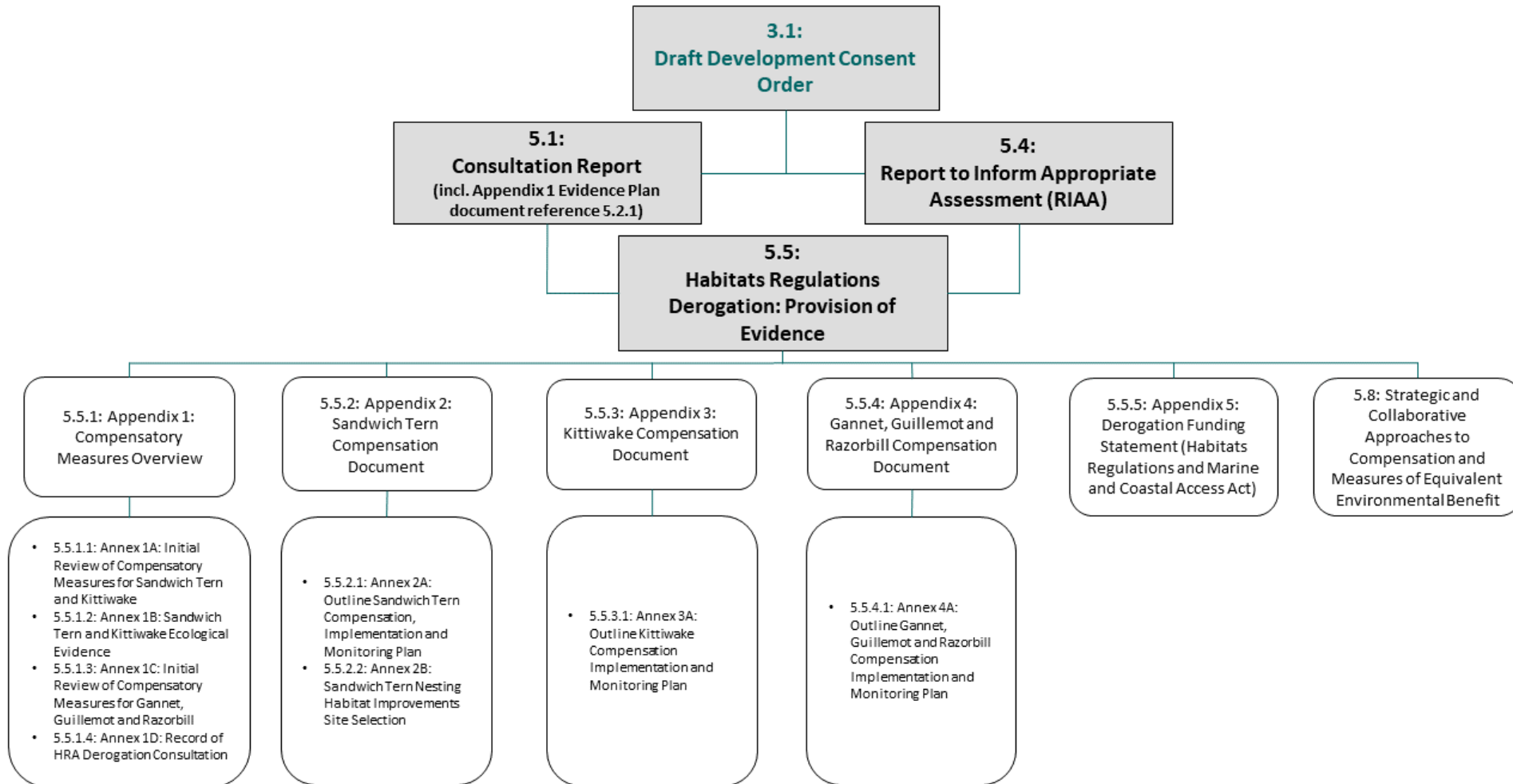


Plate 5-1-2: Overview of Derogation and Compensation Application Documents

5.5.1 Overarching & Supporting Compensation Documents

25. The overarching documents that relate to the Applicant’s proposed compensatory measures are described in **Table 5-1-3**.
26. As set out above, the Applicant is also providing a without prejudice derogation case including proposals for MEEB under the MCAA with respect to the Cromer Shoal Chalk Beds MCZ (refer to **Marine and Coastal Access Act Derogation: Provision of Evidence** (document reference 5.7) for details). The **Strategic and Collaborative Approaches to Compensation and MEEB** document (document reference 5.8) and the **Derogation Funding Statement** (document reference 5.5.5) described in **Table 5-1-3** address both compensatory measures and MEEB.

Table 5-1-3: Overarching and Supporting Compensation Documents

Document Reference	Document Title	Detail
5.5.1	Appendix 1: Compensatory Measures Overview	This document – provides a guide to the suite of documents prepared by the Applicant relating to its proposed compensatory measures, an overview of the compensatory measures themselves and the process followed in their development.
5.5.1.4	Annex 1D: Record of HRA Derogation Consultation	Provides a detailed outline of all consultation that has been undertaken in relation to the development of compensatory measures. This includes key responses and feedback from stakeholders and the regard that has been given to this in the development of the Applicants compensation proposals.
5.5.5	Appendix 5: Derogation Funding Statement (Habitats Regulations and Marine and Coastal Access Act)	Demonstrates that the financing arrangements are in place to cover the costs associated with implementing the compensation measures.
5.8	Strategic and Collaborative Approaches to Compensation and Measures of Equivalent Environmental Benefit	Outlines the Applicant’s proposed approach and commitment to strategic and collaborative compensation.

5.5.2 Site and Feature Specific Documents

27. The Applicant has developed a suite of documents which address the specific designated sites and interest features described in **Section 5.1.1**. As outlined in **Plate 5-1-** above, this includes the compensation documents themselves (which provide the details of the proposed measures), the outline Compensation and Implementation Management Plans (CIMPs) and where relevant, further supporting information.
28. In the case of Sandwich tern and kittiwake, two of these documents address both species, reflecting the joined up approach that was taken to the pre-application consultation and reporting at that stage of the process. This applies to **Annex 1A: Initial Review of Compensatory Measures for Sandwich Tern and Kittiwake** (document reference 5.5.1.1) and **Annex 1B: Sandwich Tern and Kittiwake Ecological Evidence** (document reference 5.5.1.2).

5.5.2.1 Sandwich Tern

29. **Table 5-1-4** sets out the details of the Applicant's submissions as they relate to Sandwich tern.

Table 5-1-4: Sandwich Tern Compensation Documents

Document Reference	Document Title	Detail
5.5.1.1	Annex 1A: Initial Review of Compensatory Measures for Sandwich Tern and Kittiwake	The initial review of potential compensatory measures undertaken by the Applicant and consulted upon early in the pre-application process (March 2021) showing the potential options considered and the original criteria used to select them. This document represents a snapshot in time but is submitted to show the consideration the Applicant has given to all of the potential options.
5.5.1.2	Annex 1B: Sandwich Tern and Kittiwake Ecological Evidence	A further review of the compensation options under consideration at the time (November 2021), providing the available ecological evidence and accounting for feedback received from stakeholders on the measures presented in the March 2021 initial review described above. Aimed at supporting an objective evidence based assessment of the emerging compensation proposals.
5.5.2	Appendix 2: Sandwich Tern Compensation Document	<p>Sets out the detail of the proposed project-led compensatory measures for Sandwich tern. It demonstrates how the measures can be secured and that the mechanism for delivery can be implemented.</p> <p>It also provides an overview of all of the compensatory measures considered by the Applicant during the pre-application process, but that were discounted, accounting for the feedback received from stakeholders.</p>
5.5.2.1	Annex 2A: Outline Sandwich Tern Compensation Implementation and Monitoring Plan	The Outline Sandwich Tern CIMP sets out the information that will be required in the Sandwich Tern CIMP that will be submitted for approval by the SoS in

Document Reference	Document Title	Detail
		accordance with the draft DCO (document reference 3.1).
5.5.2.2	Annex 2B: Sandwich Tern Nesting Habitat Improvements Site Selection	Sets out the steps and process taken to identify the best candidate sites for the proposed nesting habitat improvements measure, which was identified following stakeholder feedback on the initial review of compensatory measures for this species (Annex 1A: Initial Review of Compensatory Measures for Sandwich Tern and Kittiwake , document reference number: 5.5.1.1) and the ecological evidence provided in support of this measure (Annex 1B: Sandwich Tern and Kittiwake Ecological Evidence , document reference: 5.5.1.2).

5.5.2.2 Kittiwake

30. **Table 5-1-5** sets out the details of the Applicant’s submissions as they relate to kittiwake.

Table 5-1-5: Kittiwake Compensation Documents

Document Reference	Document Title	Detail
5.5.1.1	Annex 1A: Initial Review of Compensatory Measures for Sandwich Tern and Kittiwake	The initial review of potential compensatory measures undertaken by the Applicant and consulted upon early in the pre-application process (March 2021), showing the potential options considered and the original criteria used to select them. This document represents a snapshot in time but is submitted to show the consideration the Applicant has given to all of the potential options.
5.5.1.2	Annex 1B: Sandwich Tern and Kittiwake Ecological Evidence	A further review of the compensation options under consideration at the time (November 2021), providing the available ecological evidence and accounting for feedback received from stakeholders on the measures presented in the March 2021 initial review described above. Aimed at supporting an objective evidence based

Document Reference	Document Title	Detail
		assessment of the emerging compensation proposals.
5.5.3	Appendix 3: Kittiwake Compensation Document	<p>Sets out the detail of the proposed project-led compensatory measures for kittiwake. It demonstrates how the measures can be secured and that the mechanism for delivery can be implemented.</p> <p>It also provides an overview of all of the compensatory measures considered by the Applicant during the pre-application process, but that were discounted, accounting for the feedback received from stakeholders.</p>
5.5.3.1	Annex 3A: Kittiwake Outline Compensation Implementation and Monitoring Plan	The Outline Kittiwake CIMP sets out the information that will be required in the Kittiwake CIMP that will be submitted for approval by the SoS in accordance with the draft DCO (document reference 3.1).

5.5.2.3 Gannet, Guillemot and Razorbill

31. **Table 5-1-6** sets out the details of the Applicant’s submissions as they relate to gannet, guillemot and razorbill.

Table 5-1-6: Gannet, Guillemot and Razorbill Compensation Documents

Document Reference	Document Title	Detail
5.5.1.3	Annex 1C: Initial Review of Compensatory Measures for Gannet, Guillemot and Razorbill	The initial review of potential compensatory measures undertaken by the Applicant and consulted upon in the pre-application process in November 2021, showing the potential options considered and the original criteria used to select them. This document represents a snapshot in time but is submitted to show the consideration the Applicant has given to all of the potential options.
5.5.4	Appendix 4: Gannet, Guillemot and Razorbill Compensation Document	Sets out the detail of the proposed project-led compensatory measures for gannet, guillemot and razorbill. It demonstrates how the measures can be secured and that the mechanism for delivery can be implemented.

Document Reference	Document Title	Detail
		<p>It also provides an overview of all of the compensatory measures considered by the Applicant during the pre-application process, but that were discounted, accounting for the feedback received from stakeholders.</p>
5.5.4.1	<p>Annex 4A: Outline Gannet, Guillemot and Razorbill Compensation Implementation and Monitoring Plan</p>	<p>The Outline Gannet, Guillemot and Razorbill CIMP sets out the information that will be required in the Gannet, Guillemot and Razorbill CIMP, should compensation be required, that will be submitted for approval by the SoS in accordance with the draft DCO (document reference 3.1).</p>

5.6 Scope of the Compensation Documents and Outline Plans

32. Each compensation document sets out the detail of the proposed compensatory measures for the relevant site/s and interest feature/s. The information is set out under the following headings (where relevant):
- Overview;
 - Delivery Mechanism i.e. how the proposed measures will be delivered;
 - Scale;
 - Location;
 - Outline Design Details;
 - Timescales;
 - Monitoring, Maintenance and Adaptive Management;
 - Outline Implementation and Delivery Roadmap; and
 - Potential Impacts from Implementation of the Compensation.
33. The Applicant has used Natural England's list of the aspects that should be considered in such proposals (provided to it through the ETG meetings, including a similar list provided by RSPB) to help guide the development of the proposed compensatory measures at the pre-application stage. Further details are provided in each compensation document.
34. The outline CIMPs set out the information that will be required, should compensation be required, in the (final) CIMPs that will be submitted for approval by the SoS in accordance with the **draft DCO** (document reference 3.1).
35. The draft DCO wording for the compensatory measures for Sandwich tern and kittiwake is included within the **draft DCO** (document reference 3.1). Proposed draft DCO wording (should it be required) for gannet, guillemot and razorbill, for which compensation is only provided on a without prejudice basis, is presented in **Appendix 4: Gannet, Guillemot and Razorbill Compensation Document** (reference 5.5.4).

5.7 Overview of the Compensatory Measures and Delivery Model

36. As described in **Section 5.4**, the Applicant has proposed where possible a package of project-led measures for each species which is considered (if required) to fully compensate for the potential impacts from SEP and DEP. Where appropriate additional options have been added into each of the measures as a means of addressing uncertainty, for example through a higher ratio or more than one potential site for implementation.

37. Collaborative and strategic measures are also included within the compensation proposals as alternative options that may become available within the necessary timescales for SEP and DEP and thus, could feed into the Applicant's approach to compensatory measures. The Applicant considers such measures could be implemented wholly or partly in substitution for project-led delivery of compensation measures, or as part of an adaptive management approach. The Applicant is continuing to explore these options and has sought flexibility through the **draft DCO** (document reference 3.1) to be able to take advantage of future developments. Further details are provided in **Strategic and Collaborative Approaches to Compensation and Measures of Equivalent Environmental Benefit** (document reference 5.8).
38. An overview of the compensatory measures and corresponding delivery model for each site and feature is provided in **Table 5-1-7** below.

Table 5-1-7: Summary of Proposed Compensatory Measures and Delivery Model

Measure	Project-led	Collaborative	Strategic
Sandwich tern (NNC SPA / GW SPA)			
Nesting habitat improvements and restoration of lost breeding range at Scar Point, Loch Ryan	✓		
Improved breeding success at SPA sites other than NNC (e.g. the Farne Islands SPA or Foulness SPA)	✓		
Prey enhancement through sandeel stock recovery and sprat stock protection – ecosystem-based management approach			✓
Kittiwake (FFC SPA)			
Nest site improvements to enhance breeding success	✓		
Construction of new artificial breeding sites for kittiwakes onshore or offshore		✓	
Prey enhancement through sandeel stock recovery and ecosystem-based management			✓
Guillemot and razorbill (FFC SPA)			
Bycatch reduction	✓	✓	
Predator eradication from a breeding colony		✓	
Prey enhancement through sandeel stock recovery and ecosystem-based management			✓
Gannet (FFC SPA)			
Bycatch reduction research proposal – better establish the scale and pattern of bycatch and investigate reduction measures	✓	✓	

Measure	Project-led	Collaborative	Strategic
Non like-for-like compensation option – enhance the conservation of wintering and migrant shorebirds and waterfowl at Loch Ryan	✓		
All			
Strategic Compensation Fund			✓

5.8 References

Defra 2021. Best practice guidance for developing compensatory measures in relation to Marine Protected Areas. Dated 22 July 2021. Version: For consultation.

Furness, R.W., MacArthur, D., Trinder, M. and MacArthur, K. 2013. Evidence review to support the identification of potential conservation measures for selected species of seabirds. Report to Defra.