Spiorad na Mara Offshore Wind Farm

Offshore Project HRA: Compensation Plan Roadmap

Project No.: SNM-SNM-PAC-RPT-1005

Date: February 2026

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1 INTRODUCTION

1.1 BACKGROUND

1.1.1.1 Spiorad na Mara Limited (Ltd) (the Applicant) is proposing the development of the Spiorad na Mara Offshore Wind Farm (OWF) (the Project) located off the west coast of the Isle of Lewis / *Eilean Leòdhais* in the Western Isles / *Na h-Eileanan Siar,* Scotland / *Alba*. The Project will generate and transmit renewable electricity to the National Grid. The Applicant has a connection agreement with Scottish and Southern Electricity Networks (SSEN) for a connection to the grid network on mainland Scotland / *Alba* via SSEN's Alternating Current (AC) Substation and High-Voltage Direct Current (HVDC) Converter Station (referred to as the SSEN Lewis Hub). The Applicant is submitting separate consent applications for the Offshore Project (component infrastructure seaward of Mean High Water Springs (MHWS)), and the Onshore Transmission Works (OTW) Project (component infrastructure landward of Mean Low Water Springs (MLWS), for which a further consent application will be sought.

1.1.1.2 As part of the Offshore Project application process, Scottish Ministers (as Competent Authority) will be required to carry out a Habitats Regulation Appraisal (HRA), to assess the Offshore Project's effect upon European Sites[1]. The Onshore Transition Works (OTW) will be subject to a separate application process (OTW project) and will be accompanied by an Onshore Report to Inform Appropriate Assessment (RIAA). To inform the Scottish Minister's HRA, the **Offshore Report to Inform Appropriate Assessment** (hereafter referred to as the **Offshore RIAA**) was prepared in support of the offshore Application. The **Offshore RIAA** provides the information necessary for the Competent Authority to determine whether aspects of the Offshore Project will have an adverse effect on integrity (AEOI) for any European site, either alone or in-combination with other plans or projects.

1.1.1.3 HRA Stage 3 Screening identified potential for Likely Significant Effect (LSE) for a number of sites and features (Spiorad na Mara, 2024), addressing both the Offshore Project and OTW. Where a feature is screened in for both the Offshore Project and OTW, a 'whole project' assessment is required. None of the features included here (Section 2.2) have been screened in for the OTW. The Offshore RIAA undertook a whole project assessment, drawing on the information available for all sites and features where a whole project assessment is required. No quantifiable impacts to any of these sites and features will result from the OTW. Any impacts which could arise would be reduced

[1] https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra

to zero by mitigation. On this basis, the conclusions of the Offshore Project RIAA apply to the whole project.

1.1.1.4 Should the Scottish Ministers be unable to rule out an AEOI of a European site, a project can only be consented through the HRA derogation provisions. These require that firstly there are no feasible alternatives to the Offshore Project, secondly that there are Imperative Reasons of Overriding Public Interest (IROPI) in proceeding with the Offshore Project and lastly that any compensation measures necessary to ensure the overall coherence of the UK site network are provided. To ensure that Scottish Ministers have the necessary information available should they require it, a derogation case has been prepared. The accompanying report, the HRA Derogation Case, **(Offshore Project HRA Derogation Case),** provides the information to demonstrate that there are no feasible alternatives and that there are IROPI. The current report provides information to inform how compensation measures could be secured at project level (if required). The Offshore Project retains an interest in strategic and/or collaborative measures, given the potential for 'bigger, more joined up' benefits for nature and a desire for such compensation discussed with SNCBs. However, due to a lack of certainty about available strategic measures at the time of writing, project-level measures have also been investigated.

1.1.1.5 The project level effect relevant to the derogation case is quantified in Section 2. It is notable that the Offshore RIAA concluded no AEOI in both the Applicant and NatureScot (lower and upper) approaches for the Offshore Project alone. Where an AEOI was concluded (or could not be ruled out), this is in all cases based on less than 1 individual bird per annum. Such a small potential contribution to an in-combination effect needs to be considered in light of the following key points:

- The precautionary nature of assessment (as highlighted in the recent work by the Carbon Trust (2025) and SOWEC & Scottish Renewables (2025)) and how such precaution is taken into account in a risk-based approach to decision making required under the precautionary principle. These reports are clear that the precautionary principle can be invoked when there is good reason to believe that serious or irreversible environmental damage could occur and scientific uncertainty is high. The precaution inherent in the assessments undertaken for the Offshore Project means that while confidence can be drawn that the actual effect will not be greater than that predicted (i.e. the actual impact will in all cases be less than 1 individual bird per annum), how realistic or biologically plausible the actual impact will be in practice is unclear. Where predicted impacts are all less than one individual bird per year, the influence of such precaution is more significant, as such in tangible impacts inevitably become magnified to whole birds, both through the identification of compensation and the assumption applied that fractions of birds can accumulate across years and projects to result in mortality at a 'whole bird' level;

- The expectation for in-combination projects, if consented, to require compensation, thus releasing headroom at sites within which the small impacts evident in **Table 2-2** could sit without risk of an AEOI (unconsented impacts are included in the Offshore RIAA in-combination assessment regardless of project level expectations for compensation);
- The consideration of an intangible contribution to impacts, with NatureScot referenced in the Salamander Offshore Wind Farm Appropriate Assessment (Scottish Government, 2024 and 2025a) with respect to kittiwake finding an intangible contribution at St Abbs Head (impact of 0.4 birds per annum) and the Forth Islands (impact of 0.4 birds per annum);
- Consideration to 'small numbers' as per the recent Scottish Government (2025b) and Defra (2025) consultations whereby clarification was sought by the Scottish Government on the 'circumstances where compensation is required for small levels of impact to a protected site', noting specifically that 'SNCBs are already able to advise that the impact from a project would not make an appreciable contribution to any risk of an in-combination effect and can be excluded from further consideration. Ultimately, the decision maker is responsible for deciding the likely significance of a predicted impact, both alone and in-combination with other plans and projects.';
- Scottish Government (2025b) provided more detail on consideration of small numbers than Defra (2025), noting that 'Depending on the circumstances, offshore wind developers or plan authorities may be required to provide mitigation, or possibly, compensation for small predicted levels of impact either alone or in combination. The scale of any mitigation/compensation would however reflect the scale of the impact. These circumstances could include, but not be limited to the following:
    - The site or feature is already in poor condition and failing to meet conservation objectives for the impacted feature;
    - The site or feature is highly sensitive;
    - There are high levels of uncertainty over predicted mortalities due to poor data availability in relation to the proposed plan/project and others impacting the site;
    - There are unavoidable contributions to a significant in-combination impact from multiple projects on the same site (and uncertainty about the impact of projects in application stage at the site that are yet to be consented). Many seemingly small contributions at a site can result in a significant in-combination effect.

1.1.1.6 The Applicant holds the view that in light of the above, there is clear room to consider whether the scale of potential impact from the Offshore Project is sufficiently small to be considered intangible, with no material contribution to any in-combination impact, and with no potential for meaningful compensation at the scale that would be required.

1.1.1.7 Notwithstanding the above consideration of small numbers, it is the Applicant's position that should a derogation case be required it will be for in-combination AEOI only, noting that for some sites and features the case is presented as a Full Derogation Case, and for some a Without Prejudice Derogation Case. The trigger applied for inclusion in one or the other of the cases is provided below:

- For a site and feature where the Applicant's approach to the assessment concluded AEOI in-combination (or it cannot be ruled out), a Full Derogation Case is provided;
- For a site and feature where the NatureScot approach to the assessment concluded AEOI in-combination (or it cannot be ruled out), a Without Prejudice Derogation Case is provided.

1.1.1.8 This report provides a Compensation Roadmap (**Offshore Project: HRA Compensation Plan Roadmap**) which provides a suite of potential measures where potential risk of an AEOI has been identified, which could be further developed as compensation should the need arise post-application. The potential AEOI are set out in **Table 1-1** below, all of which arise only when the Offshore Project is considered in-combination with other plans and projects. Details of which sites are included on a Full or Without Prejudice derogation case are included in **Table 2-1**.

Table 1-1- Features and Designated sites for which potential AEOI have been identified (or cannot be ruled out)

Species	**Designated Site(s)**
Gannet (*Morus bassanus*)	Forth Islands SPA Outer Firth of Forth and St Andrews Bay Complex SPA
Kittiwake (*Rissa tridactyla*)	East Caithness Cliffs SPA North Caithness Cliffs SPA Flamborough and Filey Coast SPA West Westray SPA
Razorbill (*Alca torda*)	Seas off St Kilda SPA (assemblage feature) St Kilda SPA (assemblage feature)

1.2 CONTENT AND STRUCTURE

1.2.1.1 This report should be read in conjunction with the **HRA Derogation Case**. Along with the Alternatives and IROPI cases, the HRA Derogation Case presents detail regarding the legal framework and process for a HRA derogation, as well as guidance and case law (where that is available). That information is not repeated within this document in the interests of brevity. While some repetition is evident between the two documents, mainly around the conclusions of the **Offshore RIAA**, that has been included to aid interpretation and understanding of the compensation measures proposed.

1.2.1.2 The purpose of this report is to provide the following relevant information for Scottish Ministers:

- A summary of the effects of the Offshore Project on European sites that may require compensation (Section 2);
- Compensation guidance (Section 3);
- The process applied for identifying feasible compensation measures (Section 4);
- Shortlisted options for compensation measures, accompanied by a summary of supporting evidence (Section 5);
- A roadmap for the subsequent refinement of the shortlisted measures into a full Compensation Plan (and associated documents) if required to be submitted to Scottish Ministers (Section 6).

1.2.1.3 The above approach and content are in line with other recent examples in the Scottish context[2], as well as guidance deemed relevant to the development of the report, including the DTA Ecology advice note to Marine Scotland: Framework to evaluate ornithological compensation measures for offshore wind (2021) and Defra's Best practice guidance for developing compensation measures in relation to marine protected areas (2021). There is no published guidance from Scottish Ministers on project-level HRA compensation measures available at the time of writing this report, although it is noted that consultation and interim guidance on strategic compensation is available (Scottish Government, 2025b and c). The Compensation Roadmap approach as presented here was also discussed with stakeholders (including NatureScot and MD-LOT) on 23 July 2025 (see Section 4.3), whereby the Compensation Roadmap approach was agreed.

1.3 ROADMAP PROCESS

1.3.1.1 In consideration of the specific needs case of the Offshore Project, and in agreement with MD-LOT (see Section 4.4), the Applicant has prepared this Compensation Roadmap to address the potential compensation requirements associated with the Offshore Project activities, at a high level (if required). The Compensation Roadmap outlines the further steps that will be necessary post-application to demonstrate that appropriate measures can be secured, including the requirement for further consultation and supplementary information, should Scottish Ministers be unable to rule out an AEOI of a European site.

[2] Examples include Salamander Offshore Wind Farm (consented) and Ayre Offshore Wind Farm (application)

2 QUANTIFYING EFFECTS ON CONSERVATION OBJECTIVES

2.1 INTRODUCTION

2.1.1.1 The **Offshore RIAA** provides the information to inform an Appropriate Assessment (AA) for all the sites and features screened in for assessment. The results of screening, issued for consultation in 2024 (Spiorad na Mara Ltd, 2024), were updated following stakeholder consultation, which included the screening approach confirmed with Statutory Nature Conservation Bodies (SNCBs) (presented in **Offshore RIAA Appendix A: Confirmed Screening Conclusions)**. The **Offshore RIAA** consists of:

- Section 2: Updates to screening arising from consultation;
- Section 8: Assessment for offshore ornithology defined parameters (which contains Project Alone assessment which considers the Applicant's approach and NatureScot approach);
- Section 13: In-combination assessment which considers the Applicant's approach and NatureScot approach, as well as with and without Berwick Bank;
- Section 15: Conclusions of the assessment;
- Appendix A: Confirmed Screening Conclusions;
- Appendix B: Information on Designated Sites;
- Appendix C: Consultation;
- Appendix D: Offshore Ornithology Apportioning;
- Appendix E: HRA Population Viability Analysis Report;
- Appendix G: Offshore Ornithology In-combination Data Tables.

2.1.1.2 With respect to the assessments for collision risk and distributional response, these are presented under a number of scenarios; the Applicant´s approach and the NatureScot approach to the assessment of the Offshore Project alone, followed by the Applicants approach and the NatureScot approach to assessment in-combination.

2.1.1.3 The conclusions of the **Offshore RIAA** for the Offshore Project alone are that AEOI can be ruled out for all sites and features, for all assessment scenarios.

2.1.1.4 With respect to the in-combination assessment, following the Applicant's approach, an AEOI was concluded for kittiwake at West Westray SPA, with AEOI unable to be ruled out at a further four sites (Gannet at Forth Islands and Outer Firth of Forth and St Andrews Bay Complex SPAs; Kittiwake at East Caithness Cliffs SPA and Flamborough and Filey Coast SPA). Following the upper (but not lower) NatureScot approach to assessment, AEOI could not be ruled out at a further three sites (kittiwake at North Caithness Cliffs SPA and razorbill at Seas of St Kilda SPA and St Kilda SPA).

2.1.1.5 These conclusions have been incorporated into this report for the Full and Without Prejudice derogation case.

2.1.1.6 During the drafting of the assessments that underpin the conclusions of AEOI, the question of how to address impacts in-combination where those projects have received consent and require a derogation case. The approach was discussed and agreed with MD-LOT (see **Offshore RIAA Appendix C: Consultation**), with the result being that for such projects, the number of birds requiring compensation would be removed from the in-combination totals. The Applicant is aware of 4 such projects at the time of application; these are Berwick Bank, Green Volt, Salamander and West of Orkney. The number of birds which each of these projects is required to compensate for is taken from the Appropriate Assessment undertaken by Marine Scotland. Although NatureScot guidance recommends assessing a range of potential impacts, for all 4 projects, the Scottish Ministers' Appropriate Assessment has provided a single impact figure requiring compensation, and this has been based on the worst-case scenario (i.e. NatureScot's upper values). Therefore, as the Scottish Ministers' Appropriate Assessments have been used to determine the required amount of birds to be compensated, when assessing the lower level of NatureScot's displacement assessment, there is a surplus, whereby the required number of birds to be compensated is larger than the predicted impact. The Applicant has not adjusted this, as the impacts presented within the Scottish Ministers' Appropriate Assessments are deemed to be the minimum level of compensation, and therefore a surplus (net benefit) could exist.

2.1.1.7 As NatureScot's assessment range reflects uncertainty in the level of impact, it is consistent with the precautionary principle set out within the Habitats Regulations that compensatory requirements be based on the upper end of this range. If the true impact is less than this, which it consistent with NatureScot's range representing uncertainty in impact levels, then these compensatory requirements would be expected to lead to a population benefit.

2.1.1.8 At the request of MD-LOT and NatureScot, scenarios are also presented with and without Berwick Bank. The with and without Berwick Bank scenarios are only presented in the EIA for gannet, as this is the only species for which Berwick Bank is considered to have cumulative effects connectivity within the EIA assessment. The "with Berwick Bank" scenario assumes Berwick Bank proceeds and delivers compensation, following the approach set out above. The "without Berwick Bank" scenario assumes Berwick Bank does not go ahead, and so has no impact but also does not deliver any compensation. It should be noted that Berwick Bank received consent in July 2025, but is still presented as requested.

2.2 THE SITES AND FEATURES

2.2.1.1 The Full derogation case for the Offshore Project consists of five sites, which collectively have AEOI, or an AEOI cannot be ruled out, for kittiwake and gannet for the Offshore Project in-combination.

2.2.1.2 The Without Prejudice derogation case consists of three sites for kittiwake and razorbill where an AEOI cannot be ruled out for the Offshore Project in-combination.

2.2.1.3 These sites and features are summarised in **Table 2-1** along with the number of birds potentially impacted per annum at that site by the Offshore Project. Where the potential for impact is equal to or less than 0.2 individuals per annum, the impact is deemed to not make a tangible contribution to the in-combination totals, in line with advice received from NatureScot (**Offshore RIAA, Appendix C**) with respect to species carried forward for in-combination assessment.

Table 2-1 Species and sites screened in for Spiorad na Mara and included within the derogation case (Full and Without Prejudice) accompanying the Offshore Application

Species (Qualifying features)	Designated Site(s)	Annual Project Alone Adult Mortality		Conclusion (in-combination)		Full or Without Prejudice Derogation Case
		Applicant's Approach	NatureScot approach	Applicant's Approach	NatureScot Approach	
Gannet	Forth Islands SPA	0.72	0.72-0.92	AEOI cannot be ruled out	AEOI cannot be ruled out	Full
	Outer Firth of Forth and St Andrews Bay Complex SPA (foraging SPA, linked to the Forth Islands SPA)	Impact compensated to the Forth Islands SPA, hence N/A noted in mortality column	N/A	AEOI cannot be ruled out	AEOI cannot be ruled out	Full
Kittiwake	East Caithness Cliffs SPA	0.73	0.73-0.90	AEOI cannot be ruled out	AEOI cannot be ruled out	Full
	North Caithness Cliffs SPA	0.19	0.19-0.24	No AEOI	AEOI cannot be ruled out	Without Prejudice
	Flamborough and Filey Coast SPA	0.64	0.64-0.79	AEOI cannot be ruled out	AEOI cannot be ruled out	Full
	West Westray SPA	0.21	0.21-0.26	AEOI	AEOI	Full
Razorbill (assemblage feature)	Seas off St Kilda SPA (foraging SPA, linked to the St Kilda SPA)	Impact intangible; N/A noted in mortality column as impact is included in compensation to St Kilda SPA	N/A	No AEOI	AEOI cannot be ruled out	Without Prejudice

Species (Qualifying features)	Designated Site(s)	Annual Project Alone Adult Mortality		Conclusion (in-combination)		Full or Without Prejudice Derogation Case
		Applicant's Approach	NatureScot approach	Applicant's Approach	NatureScot Approach	
	St Kilda SPA	0.05 – Impact intangible	0.09-0.20	No AEOI	AEOI cannot be ruled out	Without Prejudice

2.3 POTENTIAL IMPACT ON THE COHERENCE OF THE UK SITE NETWORK

2.3.1.1 The number of birds potentially requiring compensation is summarised in **Table 2-2** below, with the total number per species for each site.

Table 2-2 Quantification of the number of birds potentially requiring compensation

Species	Site	Full or Without Prejudice Derogation Case	Number Requiring Compensation	
			Applicant's Approach	NatureScot´s Approach
Gannet	Forth Islands SPA	Full	0.72	0.72-0.92
	Outer Firth of Forth and St Andrews Bay Complex SPA	Full	N/A	N/A
	Total number of gannet for the Full derogation case		**0.72**	**0.72-0.92**
	Total number of gannet for the Without Prejudice derogation case		**0**	**0**
Kittiwake	East Caithness Cliffs SPA	Full	0.73	0.73-0.90
	North Caithness Cliffs SPA	Without Prejudice	0.19	0.19-0.24
	Flamborough and Filey Coast SPA	Full	0.64	0.79
	West Westray SPA	Full	0.21	0.21-0.26
	Total number of kittiwake for the Full derogation case		**1.58**	**1.73-1.95**
	Total number of kittiwake for the Without Prejudice derogation case		**0.19**	**0.19-0.24**
Razorbill (assemblage feature)	Seas off St Kilda SPA	Without Prejudice	N/A	N/A
	St Kilda SPA	Without Prejudice	0.05	0.09-0.20
	Total number of razorbill for the Full derogation case		**0**	**0**
	Total number of razorbill for the Without Prejudice derogation case		**0.05**	**0.09-0.20**

2.3.1.2 The conservation objectives for each site and feature identified in **Table 2-2** are presented in **Offshore RIAA Appendix B: Information on Designated Sites**. The objectives require that site integrity is maintained or restored at each SPA, and thus contributes to achieving the aims of the Birds Directive to maintain the Natura 200 Network. An AEOI would therefore affect one or more of the conservation objectives.

2.3.1.3 As set out in NatureScot guidance on maintaining or restoring objectives (NatureScot, 2021), it should be noted that all conservation objectives are subject to natural change. The example given relates to habitats, and notes that 'such changes in the habitats' extent, distribution or condition within the site which are brought about by natural processes, directly or indirectly, are normally considered compatible with the site's conservation objectives'. This also includes interactions between habitats and species, and their responses to these changes. The compensation measures proposed should also be understood in this context.

2.3.1.4 A considerable amount of information regarding populations, trends and context to such changes has and is being collected as part of wide scale monitoring and survey initiatives around the UK, including population census and tracking work at a number of SPAs funded by the North-East and Eastern Ornithology Group (NEEOG), of offshore wind farm developers. An overview of information relevant to the Offshore Project is presented within **Offshore EIAR Appendix 14.1: Baseline Characterisation Report, Volume 2c**.

2.3.1.5 The Habitats Regulations (as referenced in Section 1 of the **Offshore RIAA**) do not require that compensation secures the coherence of the European site which is adversely affected but instead refers explicitly to the "overall coherence" of the "network". In other words, compensation needs to protect the overall coherence of the network, but does not necessarily need to directly protect the site which is adversely affected.

2.3.1.6 The above interpretation is also aligned with Article 6(4) of the Habitats Directive, which states "*If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all measures necessary to ensure that the overall coherence of Natura 2000 is protected*."

2.3.1.7 **Table 2-2** is therefore provided to confirm the qualifying features (and numbers of those species) where compensation may be required and not necessarily the locations where such compensation may be implemented.

3 COMPENSATION GUIDANCE

3.1.1.1 This Compensation Roadmap takes information from the following relevant guidance into consideration:

- Scottish specific guidance on the development of compensation measures (see **Table 3-1** below);
- Scottish specific interim guidance in relation the development of a Scottish Marine Recovery Fund (Scottish Government, 2025c);
- Department for Environment, Food and Rural Affairs (Defra) "Best Practice Guidance for developing compensatory measures in relation to Marine Protected Areas" 2021 (Draft) (Defra, 2021) and Consultation on policies to inform updated guidance for Marine Protected Area (MPA) assessments (Defra, 2024);
- European Commission (EC) 2018 "Managing Natura 2000 Sites" (European Commission, 2018);
- The Planning Inspectorate's Advice Note Ten (National Infrastructure Planning, 2022).

3.1.1.2 The guidance from the EC (2018) identifies that the following criteria, introduced through this Compensation Roadmap (and which will be further addressed within the post-Application Compensation Plan), should be considered in the process of developing compensation measures:

- Cooperation and coordination between the relevant Natura 2000 authority, assessment authority, and proponent of the plan/project;
- Clear target values and objectives in accordance with the conservation objectives of the site;
- Description of compensation measures, including a scientifically robust explanation of how they will compensate for adverse effects and ensure a coherent Natura 2000 network (in a UK context, the National Site Network);
- Demonstration of the technical feasibility of the measures in relation to their objectives;
- Demonstration of legal and financial feasibility of the measures according to the timing required;
- Analysis of suitable locations and acquisition of the rights for land use;
- Timeframe in which the compensation measures are expected to achieve their objectives;
- Timetable for implementation of compensation and coordination with the schedule for project implementation;
- Public information and/or consultation stages;
- Specific monitoring and reporting schedules;
- Programme of financing.

3.1.1.3 Of particular relevance to seabird compensation in Scotland is the Scottish Government's "Framework to Evaluate Ornithological Compensatory Measures for Offshore Wind – Process Guidance Note for Developers" (Scottish Government, 2023), summarised in **Table 3-1**.

Table 3-1 An overview of the guidance documents associated with Scottish Government (2023)

Document Title	Description
Framework To Evaluate Ornithological Compensatory Measures For Offshore Wind - Process Guidance Note For Developers	Guidance note is aimed at offshore wind developers and parties acting on their behalf. It provides a process to be followed when considering the design and delivery of ornithological compensation measures at the individual project level in accordance with "the Habitats Regulations".
Scottish Guidance On The Principles Underpinning The Assessment Of Compensatory Measures In Relation To Ecology, Monitoring And Socio-Economics	This document provides a summary of the ecological, statistical and socio-economic principles considered to be of central importance in applying the framework for evaluating compensation measures for seabirds affected by offshore renewable development. It is aimed at Statutory Nature Conservation Bodies (SNCBs) and others responsible for provision of advice in respect of the delivery of compensation measures but will also be helpful to the competent authority and developers.
Compensatory Measure Advice Note	The purpose of this document is to help developers consider necessary components in the development of any compensation measure package to assist the SNCBs and regulators in appraising the evidence supporting a Derogation application.

3.1.1.4 The guidance listed above is useful when informing the approach taken by the Offshore Project with respect to compensation, and has been referred to while compiling the information within this Compensation Roadmap. However, the 'Compensatory Measures Advice Note' has been specifically used to ensure that the necessary components of the package for the Offshore Project have been provided. These include:

- Description of measures in view of the conservation objectives;
- Coherence of the network;
- Approaches for best practice with examples;
- Summary of available evidence;
- Technical feasibility;
- Delivery/implementation of measure;
- Potential key issues;
- Ecological monitoring.

4 IDENTIFICATION AND FEASIBILITY OF POTENTIAL COMPENSATION MEASURES

4.1 COMPENSATION HIERARCHY

4.1.1.1 The approach to longlisting potential compensation measures has considered compensation measures which could be achieved under a range of approaches, specifically the following:

- Strategic measures (which would require government involvement and/or the establishment of the Scottish Marine Recovery Fund (MRF)[3] to progress);
- Collaborative measures (which would require a measure to collaborate on and a project(s) to collaborate with);
- Project level measures.

4.1.1.2 The Offshore Project retains an interest in strategic and/or collaborative measures, given the potential for 'bigger, more joined up' benefits for nature and a desire for such compensation discussed with SNCBs. However, for the purposes of the current document, the focus here is on project level measures only. This is due to the lack of availability of collaborative or strategic measures which are implementation ready, and the readiness of the Offshore Project to progress to Application.

4.1.1.3 The following sections sets out the development of a project level longlist (Section 4.2) and the refinement of this into a project level mediumlist (see Section 4.3), before undergoing stakeholder consultation into a shortlist (Section 4.4).

4.2 PROJECT LEVEL LONGLIST

4.2.1.1 The Offshore Project has applied a stepwise process to identify suitable compensation measures for the target species, utilising a range of sources to generate an initial longlist of potential options, followed by a refinement of those options to provide a mediumlist of potential compensation measures, which were subject to discussion with stakeholders prior to forming the shortlist. Throughout this process, the deliverability of potential measures was taken into account; a measure that is not deliverable (e.g. technically, logistically, legally) can result in a measure being non-viable even if it is ecologically sound.

4.2.1.2 The longlist draws on expert knowledge and experience held within the NIRAS UK team (the consultants providing ornithological technical support to the Offshore Project on development of the **Offshore Environmental Impact Assessment Report**, **Offshore RIAA** and derogation case), together with existing information on compensation measures such as options from previous project

[3] https://www.gov.scot/publications/scottish-marine-recovery-fund-guidance/

proposals, grey literature and relevant guidance on compensation options. An overview of the sources used is presented within **Table 4-1**.

Table 4-1 Summary of information sources used during the longlisting process

Source	Description
Published literature – including but not limited to Furness *et al.* (2013), Furness (2021), Joint Nature Conservation Committee (JNCC) Seabird Monitoring Programme Reports, Stanbury *et al.* (2017), etc.	Key information presented on drivers of population change and potential conservation actions, species' ecological and behavioural traits and pressure-sensitivities, evidence of widespread or localised mortality or sub-lethal effects of human activities or pressures or interactions with other species.
Previous and current offshore wind farm proposals (such as Salamander and Ossian)	Significant work has already been undertaken within the industry to seek to identify suitable compensation measures for seabirds. These projects have been reviewed, with suitable measures that may have further capacity added to the longlist.
Seabird blogs (e.g. RSPB), seabird groups and newsletters (e.g. the Seabird Group)	Blog posts and newsletters share information from those on the front line of seabird conservation and can present opportunities for compensation (for example, delivering artificial nesting boxes for storm petrels).
Designated site information (primarily through the JNCC, the Scottish Government's Marine Plan Interactive web tool, NatureScot and Natural England websites).	Review of known pressures, condition, management, and site based literature for seabird SPAs.
Expert judgement	Knowledge from NIRAS' experienced ornithologists who have a history of developing and implementing compensation cases for offshore wind at both a project and strategic level, and/or have specialist knowledge for specific species or colonies and can suggest extant drivers of mortality and/or reduced breeding success that they are aware of. Examples of project level compensation cases include Salamander, Ayre and Ossian offshore wind farms.
Designated site information such as published conservation advice and management documents or web pages and supplementary advice to conservation objectives.	Review of known pressures at a designated site, condition assessments, diet and habitat use at a site, species ecology information.

4.2.1.3 The longlist measures considered fall broadly into the following groups (in no particular order):

- Predator reduction;
- Expansion of the UK site network;
- Nesting provision/enhancement;
- Reducing human pressure (wide ranging and including disturbance and pollution);
- Food availability (including fisheries-based measures).

4.3 DEVELOPMENT OF THE MEDIUMLIST

4.3.1.1 Once potential measures were identified through the longlisting approach, these were taken through a screening process (applied on several previous compensation projects across the UK, including in Scotland[4]) to further understand their suitability and alignment with compensation guidance, with a scoring applied linked to the published compensation criteria available (i.e., preference hierarchy, location, technically feasible, timing, additionality and scale) (Defra, 2021, and relevant Scottish guidance). Measures which scored above a certain threshold (based upon expert judgement) formed the mediumlist for more detailed discussion with stakeholders and investigation by the Offshore Project (see Section 4.4).

4.3.1.2 The scoring process focuses efforts on compensation measures that are more likely to be feasible for the Offshore Project. It is recognised that as the evidence base for compensation measures increases, or potential barriers to delivery of compensation measures are resolved, the scores of measures may change. It is therefore noted that, if compensation is required, the final measures selected may differ from those currently under investigation (and would be investigated further post Application). If such an instance were to arise, this change to proposed measures would be undertaken in consultation with relevant stakeholders, to agree an approach.

4.3.1.3 Measures that are presented here aim to compensate directly like-for-like (i.e. where the compensation measure and the feature being compensated for are very similar in character and scale), as there is more certainty in the effectiveness and delivery of the measure.

4.3.1.4 The screening criteria are defined in **Table 4-2**. Potential compensation measures were discussed within the Offshore Project team (comprised of the Applicant and their legal and technical advisors) and the screening criteria applied, resulting in a focused list (the mediumlist, presented in **Table 4-3**) which was progressed to further discussion with external stakeholders (see Section 4.4).

[4] For example, Salamander Offshore Wind Farm which has since gained consent

Table 4-2 Screening criteria applied to the Offshore Project longlist of compensation measures for ornithology (based on Defra 2021)

Criterion	Description	Score
Preference	DEFRA preference hierarchy[5].	4 – Address the specific impact in the same location (SAC/SPA).
		3 – Provide the same ecological function as the impacted feature; if necessary, in a different location.
		2 – Comparable ecological function in the same location.
		1 – Comparable ecological function in a different location.
Location	Measures should be in a location where they will be most effective at maintaining the overall coherence of the UK National Site Network. Delivering compensation at the affected SPA, or other protected site, should be considered the most effective and will score higher.	4 – Measure can be utilised by species from the protected site.
		3 – Species within a protected site can be affected by the measure.
		2 – Species can be affected by measure and species is within the UK portion of the biogeographic region.
		1 – Measure can be reached by species and is location within the wider biogeographic region.
Technical feasibility	Compensation measures must be technically feasible to allow implementation. This criterion will be decided based on evidence of challenges to implementation, with measures backed by evidence and with limited barriers to delivery gaining a higher score.	5 - Technical delivery of measures is well evidenced, achievable without any substantial challenges and there is certainty in the outcomes.
		4 – Technical delivery is evidenced but some challenges with delivery and some uncertainty in the outcomes.
		3 – There is some evidence of delivery and some uncertainty regarding outcomes.
		2 – Little to no evidence of delivery and considerable uncertainty in outcomes.
		1 – No evidence of delivery and considerable uncertainty in outcomes.
Timing	Compensation should be secured before the species is impacted by the Offshore Project. High scoring compensation measures in this	4 – High degree of certainty compensation will be in place, functioning and contributing to the coherence of the UK National Site Network before impact occurs.

[5] https://consult.defra.gov.uk/marine-planning-licensing-team/mpa-compensation-guidance-consultation/supporting_documents/mpacompensatorymeasuresbestpracticeguidance.pdf

Criterion	Description	Score
	category will be those which can be in place, functions and contributing to the coherence of the UK National Site Network before any impact occurs. Higher scores are also awarded to those with higher certainty associated with their timelines.	3 – Some certainty compensation will be in place, functioning and contributing to the coherence of the UK National Site Network before impact occurs.
		2 – Low certainty compensation will be in place, functioning and contributing to the coherence of the UK National Site Network before impact occurs.
		1 – Compensation will not be in place, functioning and contributing to the coherence of the UK National Site Network before impact occurs.
Additionality	Compensation must be additional to the normal practices required for the protection and management of the Protected Site. Any measures that will already be undertaken by Government bodies to ensure that sites or species are in favourable condition should not be considered.	2 – Confidence that measure will exceed what is considered 'normal' site management.
		1 – Unlikely that measure will exceed what is considered 'normal' site management.
Scale	Compensation measures should address the impact of the activity at a scale sufficient to deliver the required ratio of compensation.	3 – Potential for high numbers of birds, eggs or nest sites to be provided per year (100s) from measure.
		2 – Potential for moderate numbers of birds, eggs or nest sites to be provided per year (10s) from measure.
		1 – Potential for low numbers of birds, eggs or nest sites to be provided per year (<10) from measure.

4.3.1.5 The mediumlist, together with applied scores, is provided in **Table 4-3**.

Table 4-3 Mediumlist of compensation measures with scores[6]

Measure	Measure description	Kittiwake	Razorbill	Gannet
Mammalian predator management	Control or local eradication of mammalian predators.	15	16	N/A
Avian predator management	Management of avian predation locally, including lethal and non-lethal methods.	15	15	15
Corvid management	Management of predatory corvids locally, including lethal and non-lethal methods.	15	15	N/A
Visitor pressure management	Reduction of visitor disturbance pressure close to nesting locations.	15	14	14
Recreational disturbance management	Reduction of disturbance pressure from at-sea recreational activities in vicinity of colony/commuting routes.	13	12	13
Bycatch reduction	Adaptations of fishing methods and equipment to reduce bycatch rates.	N/A	13	14
Supplementary feeding	Supplementary feeding of chicks during crucial periods to improve chick condition and survival.	12	N/A	12

[6] Those not taken forward to the shortlist but presented to stakeholders for discussion, see Section 4.4, are in grey. N/A indicates a measure is not thought to be applicable to that species.

4.4 CONSULTATION TO AGREE SHORTLIST OF MEASURES FOR THIS ROADMAP

4.4.1.1 After agreeing the mediumlist of measures with the Offshore Project team (as in Section 4.3) consultation with MD-LOT, NatureScot, RSPB and National Trust for Scotland took place on 23rd July 2025. This consultation confirmed the approach to developing and presenting potential compensation measures that the Offshore Project proposes, and informed the shortlist of measures that are presented in this Compensation Roadmap.

4.4.1.2 The approach to developing the compensation measures that was presented during the stakeholder meeting is detailed further in Section 6 but in short consists of: a Compensation Roadmap (this document) which sets out what is required to develop compensation measures; and a Compensation Plan (See section 6.2) that will then be developed in parallel to the consultation period post-application to inform determination and any consent, and any consent conditions pertaining to compensation.

4.4.1.3 Iterative engagement is anticipated at key steps in the post application process such as if additional species (to those presented in this document) should potentially require compensation post application, to agree potential locations for shortlisted measures, and to agree implementation factors such as measuring seabird gain and sufficiency.

4.4.1.4 It should be noted that of the mediumlist measures listed in **Table 4-3**, two measures (avian predator management and supplementary feeding) were removed from the mediumlist following consultation, resulting from potential difficulties in achieving stakeholder buy-in. In addition, following the same consultation the visitor pressure and recreational disturbance measures were merged into a single potential measure (disturbance pressure management) for practical purposes.

5 SHORTLISTED COMPENSATION MEASURES

5.1 REVIEW OF SHORT LIST COMPENSATION MEASURES

5.1.1.1 The shortlist of compensation measures identified through the long and mediumlisting process and stakeholder consultation outlined in Sections 4.3 and 4.4 are as follows:

- Mammalian predator management;
- Corvid management;
- Disturbance pressure management;
- Bycatch reduction.

5.1.1.2 The measures from this shortlist are then described in Sections 5.1.2 to 5.1.7. For each of the measures described, a list of considerations which focus on the practical deliverability of the measure for the Offshore Project (and not purely the screening criterions identified in **Table 4-2**) are presented. These draw on the guidance presented in Section 3, to demonstrate the detail that will be provided post Application necessary to deliver and secure the measure. These delivery criteria are as follows:

- **Location(s) for compensation measure** – a critical criterion for delivery of compensation, as the measure needs to be implemented in the real world and therefore a location is required (including feasibility of that location, having regard to questions of issues around land ownership, access etc).;
- **Stakeholder consultation** – key for several reasons, potentially including local knowledge, acceptability, land ownership/management/use, and consenting considerations;
- **Sufficiency** – can the measure deliver sufficient compensation to offset the effect;
- **Assessments and consents** – is it likely or expected that for a measure to be implemented it will require specific consents, or in some cases assessments such as a HRA for the measure itself;
- **Delivery** – can the measure be delivered by the Applicant, does this require and/or depend on the involvement of external parties, is there a need for a regulatory change;
- **Timescale** – both in terms of timescales to a deliverable compensation package but also timescale to the measure to be operational and delivering seabird gains;
- **Monitoring requirements** – expectation of monitoring to ensure the measure is effective;
- **Adaptive management** - what are the options that could be implemented should the measure not deliver on the expected sufficiency and timescale.

5.1.1.3 This Compensation Roadmap focuses on measures that have the potential to be deliverable by the Offshore Project; some may also have potential to be delivered via other routes under the compensation hierarchy outlined in Section 4.1, should such an option become available.

5.1.2 MAMMALIAN PREDATOR MANAGEMENT

5.1.2.1 The measure is relevant to kittiwake and razorbill.

5.1.2.2 The management of mammalian predators as a measure includes reduction or eradication of mammalian predator species from a nesting colony or an area which has seen loss of focal seabird species in the past due to mammalian predation. Invasive non-native species (INNS) including brown and black rats, American mink, domestic cats, and several species of mice are among the most damaging threats to seabirds globally (Jones *et al*., 2008; Dias, 2019; Burnell *et al*., 2023). In the UK, rats and American mink establishment, particularly along Scotland's coasts, has led to the complete or near-complete loss of breeding seabirds from many Scottish islands and archipelagos, cliff nesting sites, sea lochs, firths, and sounds, (Craik, 1997; Fraser *et al*., 2015).

5.1.2.3 Mammalian predators can impact on many species of seabird, and in the UK and Scotland in particular rat eradications and American mink management can benefit focal seabird species, the former relevant to razorbill and the latter to both razorbill and kittiwake.

5.1.2.4 Eradication efforts targeting INNS on islands have proven highly effective and scalable, with numerous successful examples of rat eradications including Lundy, Ramsey Island, Cardigan Island, and in Scotland, Ailsa Craig, Canna and Sanday, and the Shiant Isles (Thomas *et al*., 2017; The Database of Island Invasive Species Eradications, 2018; Swann *et al*., 2016). These projects have led to measurable increases in seabird productivity, recolonisation of abandoned sites, and population recovery. There are examples of ongoing INNS (mammal) management initiatives within Scotland which are proving fundamental to protecting and restoring Scotland's seabirds, but whose future are uncertain; for example Biosecurity for Scotland's Seabird Islands (Biosecurity for Scotland) continues the work started by Biosecurity for LIFE and is currently funded until March 2026. It works with island managers and communities across 38 islands or island groups, that are internationally important for seabirds to develop sustainable biosecurity measures and reduce biosecurity risks along incursion pathways. The Scottish Invasive Species Initiative currently manages a Mink Control Project (MCP) focussed on northern and eastern Scotland and is funded until 2026. Pertinent to the Offshore Project, the Hebridean Mink Project began in 2001 and involved four years of intensive mink capture efforts (100,824 trap nights and 500 handler-days) across North Uist, Benbecula and South Uist, which led to the capture of 228 mink (Roy *et al.,* 2015). The last mink capture for the project occurred in 2005, and ongoing monitoring has only caught seven mink in Lewis and Harris in 2016 (Roy *et al.,* 2015). Ongoing surveillance is in place and seabird colonies have rebounded (Scottish Natural Heritage, 2018).

5.1.2.5 Without ongoing efforts to manage American mink, currently protected areas would become highly vulnerable to American mink incursion, risking significant impacts to breeding seabirds in these areas.

5.1.2.6 For mammalian predation management to be considered a suitable compensation option for the Offshore Project, the following delivery criteria would need to be considered and will be presented and discussed with stakeholders as per **Table 6-1**:

- **Location** – implementation of mammalian predator management requires a location that has evidence of mammalian predator species activity and has target seabird species or evidence of past presence of target seabird species which has been lost due to predation pressure. Factors in determining the suitability of a site include (in no particular order):
    - Presence of predatory mammal;
    - Evidence of nesting target seabird species and/or past presence of target species and available habitat;
    - Accessibility of nesting areas to the predators that are present;
    - Ease of access and implementation of predator management measures;
    - Stakeholder willingness/support including landowner and/or manager.
- **Stakeholder consultation** – buy-in from landowners and land/site managers, conservation organisations and communities is key to acceptance and success of any mammalian predator management measure. This is in addition to consultation with stakeholders such as NatureScot on the acceptability of the approach, the location, the measure and approach to quantification of the benefit.
- **Sufficiency** – it must be considered if sufficiency can be demonstrated through demonstration of predation rates of the predator species, on the focal seabird species (e.g. based on evidence elsewhere or by comparison with similar predator-free locations) or the number of suitable nesting locations that could be utilised in the absence of predators. Consultation with NatureScot, the RSPB and other stakeholders is likely to be required to agree on an approach to assessing sufficiency.
- **Assessments and Consents** – permissions from e.g. landowners and/or reserve managers may need to be sought, and/or consents to humanely kill the target species, and/or HRA requirements if the activity is within or potentially impacting an SPA.
- **Delivery** – the delivery of this measure sits within the Offshore Project's control, but could be subject to available resources such as skilled professionals to carry out the measure.
- **Timescales** – timing of measure implementation (if required) is typically linked to a consent condition. The timing to achieve benefits from the mammalian predator management would depend on the specifics of the individual location.
- **Monitoring** – monitoring methods will be discussed and agreed with relevant stakeholders post-consent. In addition to monitoring that may be required prior to measure implementation (e.g. to assess suitability of a location and/or likely sufficiency of the measure), monitoring will be required to assess success of the measure against defined success criteria.
- **Adaptive management** – depending on the specifics of the agreed mammalian predator management measure, ongoing biosecurity may be an integral component to ensure long-term security of the measure. This would include a plan for rapid action should a re-incursion be

evident. Additional adaptive management measures may be required if the initial implementation of the measure is unable to successfully manage the target mammalian predators, and/or focal seabird species do not respond sufficiently to the reduced predation. Measures may include expansion of the scale of mammalian predator management, adaptation of management approach (e.g. increased effort), management of additional target predator species, habitat management or nesting provision in order to further promote local target seabird species restoration.

5.1.3 CORVID MANAGEMENT

5.1.3.1 The measure is relevant to kittiwake and razorbill.

5.1.3.2 The management of corvids may include lethal or non-lethal management of corvid individuals or populations which are exerting pressure on seabird adults, chicks, or eggs. Whilst there may be a range of avian predators impacting on target seabird species, all wild birds are given full protection in the UK under the Wildlife and Countryside Act 1981 (as amended), noting that parts of the Act apply differently in Scotland. This makes management of avian predators complex because it would necessarily involve considering conflicting conservation aims and trade-offs. However, some species of corvid are included within the General licence for birds - GL01/2025 - To kill or take certain birds for the conservation of wild birds (in Scotland, and equivalent legislation elsewhere in the UK); this means that they can be lethally controlled for the purpose of conserving wild birds, without the need to apply for a specific licence to do so.

5.1.3.3 Not all UK corvid species are included within the general licence, and this measure is restricted to those that are included: magpie (*Pica pica*), carrion crow (*Corvus corone*), hooded crow (*Corvus cornix*), jackdaw (Corvus monedula) and jay (*Garrulus glandarius*).

5.1.3.4 There are specific references to magpies, carrion crow and hooded crow predating on seabirds in the UK (OWIC, 2025), but other corvid species may in some locations target seabirds at various life stages.

5.1.3.5 Carrion crows have been managed to compensate for impacts of Saint Brieuc OWF off Brittany, France, on kittiwake. The measure has led to increased nesting pairs of kittiwake (calculated for kittiwake only, at over 200%), and razorbill compared with pre-measure (OWIC, 2025).

5.1.3.6 Implementation of corvid management is likely to be very location-specific. Management may involve targeted removal of individual corvids or local population management depending on the context, although the former is more likely to be suitable and targeted removal of individuals is likely to be effective at reducing impacts on focal species (Westerberg *et al.*, 2019).

5.1.3.7 Corvid management measures can include non-lethal measures such as habitat modification to restrict corvid access, corvid deterrence measures, diversionary feeding, translocation of individual

predatory corvids, and/or lethal measures such as shooting, trapping or egg destruction. Again, these are likely to be highly location specific.

5.1.3.8 For corvid management to be considered a suitable compensation option for the Offshore Project, the following factors would need to be considered will be presented and discussed with stakeholders as per **Table 6-1**:

- **Location** – implementation of avian predator management is likely to be very location-specific. Factors in determining the suitability of a site include (in no particular order):
  - Evidence of predation by an avian species on the focal seabird species;
  - Individual predators can be identified;
  - Lethal or non-lethal measure can feasibly be implemented;
  - Stakeholder willingness/support including landowner and/or manager.
- **Stakeholder consultation** – buy-in from landowners and land/site managers, conservation organisations and communities is key to acceptance and success of any corvid management measure. This is in addition to consultation with stakeholders such as NatureScot on the acceptability of the approach, the location, the measure and approach to quantification of the benefit;
- **Sufficiency** – will need to establish the observed predation rate of the corvid species and individuals, on the focal seabird species. Including the trends of the focal seabird species at that site, and how it could be influenced by removal of the target corvids. Consultation with NatureScot, the RSPB and other stakeholders is likely to be required to agree on an approach to assessing sufficiency;
- **Assessments and consents** – whilst the corvid species considered within this measure are included in a general licence, it will be necessary to ensure that the conditions of that licence are met. Additional permissions from e.g. landowners and/or reserve managers may need to be sought, and/or HRA requirements if the activity is within or potentially impacting an SPA;
- **Delivery** – the delivery of this measure sits within the Offshore Project's control but could also be limited by available resources such as skilled professionals to carry out the measure;
- **Timescales** – timing of measure implementation is typically linked to a consent condition. The timing to achieve benefits from corvid management would depend on the specifics of the individual location but may be effective within one or two years of commencement;
- **Monitoring** – monitoring methods will be discussed and agreed with relevant stakeholders post-consent. In addition to monitoring that may be required prior to measure implementation (e.g. to assess suitability of a location and/or likely sufficiency of the measure), monitoring will be required to assess success against defined success criteria;
- **Adaptive management** – if the initial implementation of the measure is unable to successfully manage the target corvids, and/or focal seabird species do not respond sufficiently to the reduced predation, then additional measures may be required in order to fully compensate for the impacts of the Offshore Project. Measures may include expansion of the scale of corvid management, adaptation of management approach (e.g. lethal or non-lethal), management of

additional target corvid species, habitat management or nesting provision in order to further promote local focal seabird species restoration.

5.1.4 DISTURBANCE PRESSURE MANAGEMENT

5.1.4.1 Two measures relating to a reduction in disturbance (visitor pressure management and recreational disturbance management) have been combined in this section, due to the similarities between them. The measure is potentially relevant to all species under consideration (kittiwake, razorbill and gannet).

5.1.4.2 There is reasonable evidence that human disturbance negatively impacts seabirds, including seabird breeding productivity, as a result of responses such as increased stress (Beale & Monaghan, 2004; Harris and Wanless, 1995), flushing from nest (Ruddock and Whitfield, 2007), increased time away from nest sites (Finney, 2002), and even breeding failure or abandonment (Harris and Wanless, 1995).

5.1.4.3 There is evidence of some impact of human disturbance including reduced nesting success in all of the focal species, both from terrestrial human presence (e.g. Ruddock and Whitfield 2007, Harris and Wanless, 1995), and from at-sea disturbance (e.g. Heasley 2024, Goodman and Furness, 2022).

5.1.4.4 Whilst human disturbance including visitor pressure can be adverse for seabirds, providing visitor access to see and engage with wildlife can yield support for their conservation (Beale, 2007) and if managed appropriately human presence can partially mitigate other threats such avian predation pressure (National Trust for Scotland, 2025).

5.1.4.5 Appropriate management to minimise the adverse effects of visitor presence can lead to improved nesting success for focal seabird species whilst maintaining the visitor experience and support for seabird and wildlife conservation.

5.1.4.6 Measures may include improved footpaths at a suitable distance from nesting areas, visitor signage, engaging with and providing educational material to local recreational groups and clubs (e.g. kayaking or paddleboarding clubs or providers), providing viewing areas at a suitable location, providing material for boat or tour operators which can be shared with visitors/customers.

5.1.4.7 In order for Disturbance Management to be a suitable compensation measure, the following factors would need to be considered and will be presented and discussed with stakeholders as per **Table 6-1**:

- **Location** – a nesting area within a colony or a whole colony would need to be identified where disturbance has been identified or is likely to be a concern and in particular for the focal seabird species requiring compensation;
- **Stakeholder consultation** – a key step in the approach would be consultation with the landowner or land/site manager such as reserve manager if the colony is part of a reserve. Depending on the nature of the disturbance at the specific location, there may be a need for

consultation with relevant stakeholder groups, e.g. tour operators or recreational clubs that may utilise the area and interact with the colony. This is in addition to consultation with stakeholders such as NatureScot on the acceptability of the approach, the location, the measure and approach to quantification of the benefit;

- **Sufficiency** – the aim of the measure would be to improve nesting success and productivity by reducing the frequency and/or severity of disturbance events in order to reduce the likelihood of adults flushing from their nest (leaving eggs or chicks more likely to perish and susceptible to predation). Whilst gains in a particular nesting area or colony may be small, gains can accumulate if measures are applied over a sufficient area and affect a sufficient number of nests/breeding pairs. Analysis of population outcomes (e.g. PVA) will be required in order to convert changes to productivity into adult birds gained in the population;
- **Assessments and consents** – Permissions from e.g. landowners and/or reserve managers may need to be sought, and/or HRA requirements if the activity is within or potentially impacting an SPA;
- **Delivery** – the delivery and monitoring of this measure sits within the Offshore Project's control but successful outcome is dependent on others including landowners and/or reserve managers, local recreational groups, tour operators and visitors;
- **Timescales** – timing of the measures implementation (if required) is typically linked to a consent condition. An initial period of engagement with relevant groups can likely be followed fairly rapidly by implementation of measure(s) such as installation of signage, construction of footpaths, rope barriers or other supporting infrastructure as required, preparation of guidance material for local groups or operators etc. Benefits are likely to be realised quickly (within the first breeding season) upon implementation of the measure;
- **Monitoring requirements** – monitoring methods will be discussed and agreed with relevant stakeholders post-consent. Core monitoring will focus on determining success of the measure against defined success criteria. Monitoring may include some or all of the following:
  - Spatial use of the area by visitors or recreational groups (pre and post measure implementation);
  - Frequency of human-focal species interactions;
  - Frequency of observable disturbance events;
  - Productivity of focal species (pre and post measure implementation, and comparisons with control area).
- **Adaptive management** – if the initial implementation of the measure is unable to successfully manage disturbance levels, and/or focal seabird species do not respond sufficiently to the reduced disturbance, then additional measures may be required in order to fully compensate for the impacts of the Offshore Project. Measures may include expansion of the scale of disturbance reduction measures including targeting of further visitor/recreational groups and activity types, adaptation of approach (e.g. physical barriers in addition to signage), extension of the geographical extent of measure implementation or habitat management.

5.1.5 BYCATCH REDUCTION

5.1.5.1 The measure is relevant to razorbill and gannet.

5.1.5.2 Bycatch of seabirds refers to the incidental catch of seabirds within commercial fishing activities; feeding ecology and willingness to engage with vessels makes seabird species differentially vulnerable to bycatch (e.g. Northridge *et al.*, 2023, Gremillet *et al.*, 2020). Within the UK, Northridge *et al.* (2023) show particular hotspots for razorbill bycatch off eastern and southern England and for gannet off northern Scotland and around Ireland. Razorbill can be caught in nets including static nets and trawls, with an estimated annual bycatch mortality in the region of a few thousand individuals (Northridge *et al.*, 2020), with most of this attributable to coastal net fisheries, or over 27,000 across gear types and across the north-east Atlantic (Ramírez *et al.*, 2024). Gannet can be caught in surface and pelagic gear including those deployed deeper than gannet diving range (as they can be caught during deployment or hauling, Bradbury *et al.*, 2017). Longline fishing appears to present the greatest threat to gannet in UK waters, with an estimate of 50 to 150 gannet likely bycaught each year (Kingston *et al.*, 2023). Gannet annual bycatch across gear types and across the north-east Atlantic has been estimated at over 18,000 (Ramírez *et al.*, 2024). The estimated bycatch in UK waters for other focal seabird species where data is available are small e.g. a few ten's per year for kittiwake in UK waters (Northridge *et al.*, 2020).

5.1.5.3 There are a variety of factors which can influence bycatch numbers. In the UK, bycatch rates for gannet appear to be highest in the summer and in the more northern parts of the UK fisheries range. Bycatch rates may also be affected by: bird behaviour; the time of day lines are set; the prevailing weather conditions; and the performance of any bird deterrent devices used (Northridge *et al.*, 2023).

5.1.5.4 There is the potential to apply mitigation measures to alleviate bycatch, for example types of hooks, bird scarers, deployment and hauling methods applied. The following factors would need to be considered and will be presented and discussed with stakeholders as per **Table 6-1**:

- **Location** – location for this measure relates not just to a geographic location (where the seabirds and fisheries are known to interact and bycatch occurs) but also specific vessels which engage in the type of fishing and using the type of gear posing a bycatch risk for the focal seabird species;
- **Stakeholder consultation** – a key step in the approach would be consultation with fishers but also the relevant fishery organisation(s) and government agencies. This is in addition to consultation with stakeholders such as NatureScot on the acceptability of the approach, the location, the measure and approach to quantification of the benefit;
- **Sufficiency** – the aim of the measure would be to reduce bycatch of birds in larger numbers than the total required for compensation. Sufficiency may also need to take account of the seasonality of the impact, age and associated survival rates of birds no longer caught (adult, juvenile or immature) and connectivity of the birds to the UK site network. A number of vessels

may be required to implement bycatch reduction measures in order to provide sufficient seabird gain. Consultation with NatureScot, the RSPB and other stakeholders is likely to be required to agree on an approach to assessing sufficiency;

- **Assessments and consents** – the need for any consents and assessments will depend on the licensing regime that applies to the fishing vessel(s) involved;
- **Delivery** – the delivery and monitoring of this measure sits within the Offshore Project's control but is dependent on others (primarily the fishers) as a project partner to implement;
- **Timescales** – timing of measure implementation (if required) is typically linked to a consent condition. Timing to achieve benefits from the measure once implemented would depend on the age class of seabirds subject to bycatch, but for adult birds is immediate;
- **Monitoring requirements** – monitoring methods will be discussed and agreed with relevant stakeholders post-consent. Core monitoring will focus on determining success of the measure against defined success criteria. Monitoring may include some or all of the following:
  - Use of fishery observers;
  - Access to vessel logbooks;
  - Use of a camera mounted system on vessels;
  - Reporting by fishers.
- **Adaptive management** – this would need to be discussed and agreed with the regulator but could include additional vessels or additional measures to further reduce risk of bycatch.

6 ROADMAP PROCESS

6.1 REFINING THE NEED FOR COMPENSATION

6.1.1.1 This report provides a summary of the predicted effects associated with the Offshore Project in Section 2, including quantification of those impacts for relevant features, for which Scottish Ministers may consider it necessary to secure compensation measures. The impacts included within this report are drawn from the conclusions of the HRA assessment for Offshore Ornithology, which is presented in full within the **Offshore RIAA**.

6.1.1.2 As noted in Section 2.1, the risk of an AEOI is a result of in-combination impacts only, with reference to the relevance of small numbers to consideration of the requirement for compensation made in Section 1.1. Of the projects contributing to these in-combination totals, several have a public domain derogation case with a consent decision pending. As consent decisions are made, it is expected that some of these in-combination totals will change (being removed should a project not gain consent, changed if assessments are updated or removed should a project be required to deliver compensation). This has the potential to change the risk of an AEOI for the Offshore Project in-combination with other plans and projects, if such changes release sufficient headroom. The point is particularly relevant for the Offshore Project, as the project level contributions to the in-combination totals are extremely small (as outlined in Section 1.1), in many instances intangible. Further refinement of the species and sites deemed to require compensation measures is expected post application. The Applicant has therefore sought to include a sufficient shortlist of measures within this document (Section 5) to provide adequate options for compensation, should it be required, for the likely potential sites and features whilst allowing for further future refinement.

6.2 REFINING THE SHORTLIST

6.2.1.1 This document is prepared to support the Application, and provide confidence that should compensation for impacts on SPAs be required, there are measures available which are likely to be feasible and sufficient if developed further. Following Application, the Applicant will continue to develop these compensation measures for species for which it may be required (see Section 2). An output of this development work will be a suite of documents (listed below) that will provide further evidence as to the suitability of the measures and could also result in further refinement of the short list itself. Specifically:

- Compensation Overview Report (to signpost what information is provided and where it can be found);
- Ecological Evidence Report (to provide the ecological evidence base that the measure(s) is (are) ecologically relevant for the required species, and that it is (are) relevant at the identified location(s));

- Compensation Plan (to demonstrate sufficiency of the measure(s), and to outline site selection, implementation, stakeholder engagement, adaptive management);
- Outline Implementation and Monitoring Plans (outline of the proposed plan, the full plan to be developed post consent).

6.2.1.2 This approach has been adopted in line with other Scottish projects (e.g. the consented Salamander Offshore Wind Farm, 2024, and the application project Thistle Wind Partners, 2025). The consented project worked with Scottish Government post application to submit further detail on selected measures pre-decision, in order to inform the AA.

6.3 SUBSEQUENT CONSULTATION AND ENGAGEMENT

6.3.1.1 As described in Section 4.4, an initial consultation has been undertaken as part of the process of agreeing the shortlist of measures presented in Section 5. Further consultation was held in early 2026 to help guide the refinement of the measures for Application. The intention is to have iterative engagement as the measures are further developed and to establish an agreed set of measures that are deliverable and address any impacts identified for the Offshore Project (see Section 2.2). This approach has been used with other projects, who has worked with the Scottish Government post-Application to establish a full Compensation Plan (see Section 6.1.1.1) . This will be developed over 2026 with key stakeholders, such as MD-LOT, NatureScot, NTS and RSPB, once sites are identified. Local land owners and land managers will also be contacted for discussion.

6.4 INDICATIVE ROADMAP

6.4.1.1 **Table 6-1** below provides an indicative timeline for the delivery of the documents outlined in Section 6.2 in support of the Offshore Project's Application and Derogation Case. It also shows key activities that are necessary to inform the development of these documents. This is an indicative timeline only – and is expected to be subject to external influence e.g. progress on the Scottish Marine Recovery Fund, subsequent refinements on understanding of AEOI for the Offshore Project as in-combination plans and projects receive consent decisions and Project level consultation. Therefore, activities and timelines should be seen as indicative only at this stage.

Table 6-1 Indicative timeline for compensation deliverables and key activities to support post application delivery of supplementary documents

	Project Month					
	1	2	3	4	5	6
Compensation Reports						
Ecological Evidence						
Compensation Plan						
Overview Report						
Outline IMP(s)*						
Activities						
Application Consultation	Application consultation will inform position on species and sites requiring compensation					
Compensation measure consultation	Project led consultation on the development of compensation documents will be undertaken.					
Other engagement	Iterative engagement with a range of statutory and non-statutory stakeholders will be undertaken throughout roadmap process.					
Feasibility appraisal	Detailed consideration of technical, financial, legal and other feasibility issues to achieve a refined shortlist. Iterative where necessary.					
Site Identification	Identification of suitable sites and opportunities is necessary, developing into the eventual securing of rights.					
Identification of Delivery Partners	Collaboration pursued where opportunities are available. To be informed by the refined shortlist and further engagement					
Identification of Delivery Mechanisms	Identification of additional consents requirements. Monitoring of strategic fund development and preparation of funding statements.					
Establishing design details	Consideration of surveys, practical design and cost elements of measures.					

7 GLOSSARY OF TERMS AND ABBREVIATIONS

7.1.1.1 A list of key terms and acronyms used in this Compensation Roadmap are provided in **Table 7-1** and **Table 7-2**.

Table 7-1 Acronyms and abbreviations

Term	Definition
AA	Appropriate Assessment
AC	Alternating Current
AEOI	Adverse Effect on Integrity
cSAC	Candidate Special Area of Conservation
DEFRA	Department for Environment, Food and Rural Affairs
EIAR	Environmental Impact Assessment Report
EU	European Union
HRA	Habitats Regulations Appraisal
HVDC	High-Voltage Direct Current
INNS	Invasive Non-Native Species
IROPI	Imperative Reasons of Overriding Public Interest
JNCC	Joint Nature Conservation Committee
km	kilometres
LSE	Likely Significant Effect
MCP	Mink Control Project
MD-LOT	Marine Directorate – Licensing Operations Team
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MRF	Marine Recovery Fund
NEEOG	North-East and Eastern Ornithology Group
NTS	National Trust for Scotland
OSP	Offshore Substation Platform
OTW	Onshore Transition Works
OWF	Offshore Wind Farm
OWIC	Offshore Wind Industry Council
pSAC	Proposed Special Area of Conservation
pSPA	Proposed Special Protection Area
PVA	Population Viability Analysis
RIAA	Report to Inform an Appropriate Assessment
RSPB	Royal Society for the Protection of Birds
SAC	Special Areas of Conservation
SCI	Site of Community Importance
SNCB	Statutory Nature Conservation Body
SPA	Special Protection Area
SSEN	Scottish and Southern Electricity Networks

Term	Definition
UK	United Kingdom
WTG	Wind Turbine Generator

Table 7-2 Glossary

Term	Meaning
Appropriate Assessment (AA)	An assessment to determine the implications of a plan or project on relevant national site network sites in view of that site's conservation objectives. National site network refers to the network of protected areas that were previously part of the European Union's Natura 2000 network. This network is composed of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). An AA forms part of the Habitats Regulations Appraisal (HRA) and is required when a plan or project (either alone or in-combination with other plans or projects) is likely to have a significant effect on a national site network. Where there are adverse impacts, it also includes an assessment of the potential mitigation for those impacts.
Array Area	The offshore area within which the offshore wind turbine generators (WTGs), associated foundations, Offshore Cables and Offshore Substation Platform (OSP) (if required) will be located. This area encompasses the Turbine Area that will contain all above water surface infrastructure (WTGs / OSP) and an additional area within which further below water infrastructure (foundations and cables) may also be located.
Array Cables	The offshore electrical and communication cables that connect infrastructure located within the Array Area, for: • Scenario 1: Array Cables will be used to connect Wind Turbine Generators (WTGs) to each other, and to connect WTGs to the OSP. • Scenario 2: Array Cables will be used to connect WTGs to each other.
Compensation / Compensatory Measures	The term compensatory measures is not defined in the Habitats Regulations. Compensatory measures are however, considered to comprise those measures which are independent of the project, (including any associated mitigation), and are intended to offset the negative effects of the plan or project so that the overall ecological coherence of the UK site network is maintained.
Competent Authority	A competent authority is the authority with the power or duty to determine whether or not a proposal can proceed. A competent

Term	Meaning
	authority may include any Minister, government department, public or statutory undertaker, public body of any description, or person holding a public office. The term derives from the Habitats Regulations and relates to the exercise of the functions and duties under those Regulations. Competent authorities are defined in the Habitat Regulations as including "any Minister, government department, public or statutory undertaker, public body of any description or person holding a public office".
Derogation	Term used in HRA to apply to the Stages post Appropriate Assessment (if required). Includes consideration of alternatives, IROPI and the requirement for compensation.
Distributional Response	Defined by NatureScot (NatureScot (2023h). The two key distributional responses assessed in relation to offshore wind farms are displacement and barrier effects.
Environmental Impact Assessment (EIA)	The process of evaluating the likely significant environmental effects of a proposed project or development over and above the existing circumstances (or 'baseline').
Environmental Impact Assessment Report (EIAR)	The Environmental Impact Assessment Report (EIAR) prepared to assess the likely significant effects of the Project on the environment.
European sites	Formerly known as 'Natura Sites', European Sites are those that are designated through the Habitats Directive and Birds Directive (via national legislation as appropriate). European sites in Scotland/Alba are considered to be Special Protection Areas (SPAs), Special Areas of Conservation (SACs), candidate SACs and Sites of Community Importance (SCI), Potential SPAs (pSPA), possible SACs (pSACs), Ramsar sites (designated under international convention) and proposed Ramsar sites.
Favourable Conservation Status	For the purposes of the Habitat's Regulations these have the meanings as defined in the Habitats Directive (Article 1(e) and 1(i)), the conservation status of a natural habitat is be taken as "favourable" when: its natural range and areas it covers within that range are stable or increasing, and; the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and; the conservation status of its typical species is favourable as defined in Article 1(i). Article 1(i) The conservation status will be taken as "favourable" when: population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and;

Term	Meaning
	the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and; there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.
Habitats Directive	European Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.
Habitats Regulations	Related to the conservation of natural habitats and of wild fauna and flora, translated into specific legal obligations in Scotland / *Alba* by the Conservation (Natural Habitats, &c.) Regulations 1994) (As Amended; The Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017.
Habitats Regulations Appraisal (HRA)	Under the Habitats Regulations, all competent authorities must consider whether any plan or project could affect a European site before it can be authorised or carried out. This includes considering whether it will have a 'likely significant effect' on a European site, and if so, they must carry out an 'appropriate assessment' (AA). This process, known as Habitats Regulations Appraisal (HRA) determines likely significant effects and (where appropriate) assesses adverse impacts on the integrity of European sites. The process consists of up several sequential stages, which include: screening for LSE, appropriate assessment to determine AEOI, assessment of alternative solutions, assessment of imperative reasons of over-riding public interest (IROPI) and compensatory measures.
HRA derogation provisions	The sequential legal tests that must be met if a Competent Authority is to agree to a project in circumstances where appropriate assessment is unable to rule out AEOI on a European site. This consists of a 3-step process where first it must be demonstrated that no feasible alternative solutions to the Offshore Project exist, secondly that there are imperative reasons of overriding public interest for the Offshore Project to proceed and finally that suitable compensatory compensation measures are secured that preserve the coherence of the site network.
Impact	Change that is caused by an action; for example, foundation installation (action) during construction which results in habitat loss (impact)
In-Combination Effect	Used to refer to the effects of the Project on a European Site in-combination with other relevant plans and projects with potential to contribute to a likely significant effect (LSE) or adverse effect on the integrity of that European Site.
Marine Directorate – Licensing Operations Team (MD-LOT)	The regulator for determining marine licence applications on behalf of the Scottish Ministers in the Scottish inshore region (between 0 and 12 nautical miles) under the Marine (Scotland) Act

Term	Meaning
	2010, and in the Scottish offshore region (between 12 and 200 nautical miles) under the Marine and Coastal Access Act 2009.
Marine Directorate (MD)	Civil service directorate for Scotland / *Alba*, which is responsible for the integrated management of Scotland / *Alba*'s seas.
Marine Licence	Licence required for certain activities in the marine environment and granted under either the Marine and Coastal Access Act 2009 or the Marine (Scotland) Act 2010.
Mean High Water Springs (MHWS)	The average throughout a year of the heights of two successive high waters during those periods of 24 hours (approximately once a fortnight) when the tidal range is greatest.
Mean Low Water Springs (MLWS)	The average throughout a year of the heights of two successive low waters during those periods of 24-hours (approximately once a fortnight) when the tidal range is greatest.
Natura 2000 Network	A coherent European ecological network of Special Areas of Conservation and Special Protection Areas comprising sites located within European Union Member States. This term is now superseded in the UK context by the term 'UK site network'.
Offshore Application	The application for Marine Licences under the Marine (Scotland) Act 2010 (between 0 and 12nm) and a Section 36 consent under the Electricity Act 1989.
Offshore Project	The components of the Spiorad na Mara offshore wind farm (the Project) located seaward of Mean High Water Springs (MHWS).
Onshore Application	The application for consent under the Town and Country Planning (Scotland) Act 1997 (as amended).
Onshore Transmission Works (OTW) / Onshore Project Boundary	The components of the Spiorad na Mara offshore wind farm (the Project) located landward of Mean Low Water Springs (MLWS).
Project	The Spiorad na Mara offshore wind farm development. This term describes the whole development, including all offshore and onshore components.
Report to Inform Appropriate Assessment	Report prepared by the Applicant to provide a Competent Authority with the information necessary to undertake an Appropriate Assessment (AA). This has been provided alongside other application documents.
Scoping	An early stage of the EIA process wherein the key potential significant impacts of the Offshore Project are identified, and methodologies identified for how these should be assessed.
Scoping Opinion	A report presenting the written opinion of the Scottish Ministers, as to the scope and level of detail of information to be provided in the Report to Inform Appropriate Assessment (RIAA) for the Project.
Scottish Ministers	The Ministers of the devolved Scottish Government, who exercise statutory functions transferred from the UK Government. The Scottish Ministers support the First Minister in leading the Scottish Government.

Term	Meaning
Screening	The HRA stage to determine if the Offshore Project is likely to have a significant effect on a European Site on its own or in combination with other proposals.
Significant Effect	Term used to express the consequence of an impact. A significant effect should be considered likely if it cannot be excluded on the basis of objective information and beyond reasonable scientific doubt that it might undermine a site's conservation objectives.
Special Area of Conservation (SAC)	An area designated under the EC Habitats Directive to ensure that rare, endangered or vulnerable habitats or species of community interest are either maintained at or restored to a favourable conservation status.
Special Protection Area (SPA)	An area designated under the Wild Birds Directive (Directive74/409/EEC) to protect important bird habitats. Implemented under the Wildlife and Countryside Act 1981.
The Applicant	Spiorad na Mara Limited (the Project owner).
UK Site Network	The network of European Sites in the UK. Prior to the UK's exit from the EU these sites formed part of the EU ecological network known as "Natura 2000".
Wind Turbine Generator (WTG)	The wind turbines that generate electricity consisting of tubular towers and blades attached to a nacelle housing mechanical and electrical generating equipment

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