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Application Document 16

Appendix 16-4 Caledonia South Outline Implementation and Monitoring Plan

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Application Document 16 Appendix 16-2 Caledonia South Outline Implementation and Monitoring Plan

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Acronyms and Abbreviations

| | |
|---------------|--|
| AEoSI | Adverse Effect on Site Integrity |
| IMP | Implementation and Monitoring Plan |
| MD-LOT | Marine Directorate - Licensing Operations Team |
| OWF | Offshore Wind Farm |
| PVA | Population Viability Analysis |
| RIAA | Report to Inform Appropriate Assessment |
| RSPB | Royal Society for the Protection of Birds |
| SPA | Special Protection Area |

1 Introduction

1.1.1.1 This appendix provides details regarding the (Outline) Implementation and Monitoring Plan for the Proposed Development (Offshore), specifically to inform the Caledonia South application, located in the Moray Firth, Scotland. This appendix supports the Caledonia South Derogation Case (Application Document 16: Caledonia South Habitats Regulations Appraisal Derogation Case).

1.1.1.2 The Proposed Development (Offshore) will be developed in two phases (see Volume 1, Chapter 5: Proposed Development Phasing), referred to as Caledonia North and Caledonia South. The Array Areas of the two phases are referred to as the Caledonia North Site and the Caledonia South Site, with the combined Array Areas referred to as the Caledonia Offshore Wind Farm (OWF). It is assumed that construction of the two application areas could be progressed in either order (e.g., Caledonia North constructed in the first phase, then Caledonia South in the second phase, or vice-versa) or at the same time. This has been assessed within a single Report to Inform Appropriate Assessment (RIAA) covering Caledonia North and Caledonia South in isolation, as well as the Proposed Development (Offshore) (i.e., Caledonia North and Caledonia South combined).

1.1.1.3 The Caledonia South RIAA (Application Document 14), through apportioning, in-combination assessments and population viability analysis (PVA), concluded that the Proposed Development (Offshore) could have an Adverse Effect on Site Integrity (AEoSI) on a number of Special Protection Area (SPA) seabird populations when impacts from the Proposed Development (Offshore) are considered in-combination with other projects. For this reason, the application for Caledonia South is supported by a derogation case, including the development of compensation measures for black-legged kittiwake (hereafter kittiwake) *Rissa tridactyla*, Northern gannet (hereafter gannet) *Morus bassanus*, common guillemot (hereafter guillemot) *Uria aalge*, and Atlantic Puffin (hereafter puffin) *Fratercula arctica*. For guillemot and puffin, this derogation case is without prejudice, based on the fact that the Applicant Approach in the RIAA concluded no AEoSI for those two species.

1.1.1.4 Additional relevant information can be found in the following documents:

- Caledonia South Compensation Long List and Short List (Application Document 16, Appendix 16-2), which contains:
 - For each at-risk species, an ecological description and information on pressures facing the species, the nature, extent and potential impacts of adverse effects
 - A long list and short list of compensation measures, with methodology provided and feasibility and sufficiency of compensation options discussed

- Caledonia South Compensation Plan and Site Selection (Application Document 16, Appendix 16-3), which contains:
 - Details on the predicted impacts (from Application Document 14; Caledonia South Report to Inform Appropriate Assessment);
 - An overview of the proposed short list of compensation measures, including ecological effectiveness, wider ecological considerations, timing of delivery, monitoring requirements, adaptive management requirements and feasibility.

1.1.1.5 This document provides an outline for the Implementation and Monitoring Plan (IMP) for the chosen compensatory measures. This is a working document; this Outline IMP provides an overview of the information to be captured within the IMP, to be developed in close collaboration and consultation with a stakeholder steering group post-submission.

1.1.1.6 This Outline IMP details the consultation process and outlines stakeholders that could be involved in the IMP development and compensation delivery process. It then considers IMPs for all shortlisted compensatory measures. The shortlisted compensatory measures are as follows:

- Reduction of disturbance and colonies (kittiwake, gannet, guillemot, puffin);
- Mammalian predator management and eradication (all species);
- Avian predator management (kittiwake, guillemot, puffin);
- Bycatch reduction (gannet, guillemot);
- Restoration or maintenance of breeding sites (puffin); and
- Conservation management funding (all species).

1.1.1.7 For each shortlisted compensatory measure, the document outlines contents of the IMP regarding the following:

- Scale and location;
- Design of measure;
- Management/maintenance (where applicable);
- Delivery mechanisms;
- Implementation timeline;
- Monitoring;
- Adaptive management; and
- Reporting.

2 Consultation

- 2.1.1.1 The Applicant will establish a steering group to assist on implementation, monitoring, reporting, adaptive management and other relevant matters. Specifically, the steering group will:
- Monitor the progress of the IMP to ensure objectives of the compensation measure(s) are defined and met;
 - Provide expert views (such as on any technological or ecological issues, data analysis and presentation etc.);
 - Give advice on key decisions, requirements, targets and timelines for implementation and monitoring;
 - Consider and recommend corrective measures where and if these objectives are not being met;
 - Carry out reviews at set timepoints throughout implementation and delivery (to monitor progress and aid in the discharging of consent conditions);
 - Ensure that there is a transparent and open process for the implementation of the IMP with an evident audit trail; and
 - Provide regular updates on the implementation of the IMP to a 'wider audience'.
- 2.1.1.2 Steering group membership will be finalised post-submission, and will include representatives from the Applicant, NatureScot, Marine Directorate - Licensing Operations Team (MD-LOT), the Royal Society for the Protection of Birds (RSPB), local wildlife trusts, local authorities and other local stakeholders (for example relevant representatives of commercial fisheries for developing the bycatch compensation measure).
- 2.1.1.3 This section of the IMP will provide an overview of all relevant consultation that has taken place through the steering group as part of the development of the IMP. Details of the steering group including membership, schedule of meetings, timetable for final IMP delivery and review periods will be documented here. This section will include a summary of agreements and key decisions, as well as any outstanding issues and next steps for resolving these. Plans for ongoing engagement with the steering group will also be outlined here.

3 Proposed Compensation Measures

3.1 Reduction of Disturbance at Colonies

3.1.1 Overview

3.1.1.1 An overview of the proposed compensation measure (including ecological effectiveness, wider ecological considerations, timing of delivery, monitoring requirements, adaptive management requirements and feasibility) can be found in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.1.2 Scale and Location

3.1.2.1 This section will discuss the scale of compensation required as per the relevant assessments. The scale of compensation will be informed through compensation calculations as outlined in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, and subsequently confirmed through the consent decision.

3.1.2.2 This section will set out the location(s) at which the disturbance reduction measures will be undertaken. It will include evidence on the suitability of the site(s) to deliver compensation, based on the site selection detailed within Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, as well as further refinement using stakeholder consultation, further research and any relevant on-site monitoring.

3.1.2.3 Information on the securing of the relevant rights and permissions for the location will be detailed here.

3.1.3 Design of Disturbance Reduction Measures

3.1.3.1 This section will present the chosen approach and design for the delivery of the anthropogenic disturbance reduction programme (e.g., the introduction of wardens, signage, path diversions and path maintenance). Ecological considerations to maximise the potential for success will also be discussed.

3.1.3.2 The programme design will be discussed with relevant stakeholders post-consent to be agreed within the final IMP.

3.1.4 Delivery Mechanisms

3.1.4.1 This section will confirm the delivery process to successfully implement disturbance reduction measures, as well as outlining stakeholders and/or partners involved and their responsibilities in the delivery. This section will

also present the nature and status of all consents and any other relevant approvals that are needed to secure the implementation of disturbance reduction.

3.1.5 Implementation Timeline

3.1.5.1 This section will confirm the programme for the implementation of the disturbance reduction measures and the timescales for the anticipated delivery of compensation. Any lead-in times and predicted delivery of compensation quanta across the operational timeline of the Proposed Development (Offshore) will be set out here. For further discussion around timing of delivery of the proposed measures, see Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.1.6 Monitoring

3.1.6.1 This section will set out the specific monitoring objectives, plans, and schedules, as well as a description of how the proposed monitoring approach links to the objectives of the compensation measure.

3.1.6.2 The approach to monitoring development will be informed by “Scottish guidance on the principles underpinning the assessment of compensatory measures in relation to ecology, monitoring and socio-economics” (Butler *et al.*, 2024¹).

3.1.6.3 This section will include information on the frequency and duration of monitoring, including written protocols and indicators provided by surveys/monitoring. Also included will be detail on the types and quantity of data that will be collected, and a description of the proposed approach for processing and analysing the data. Power calculations may be considered where appropriate to demonstrate that the proposed data collection approach is sufficient to achieve monitoring objectives.

3.1.6.4 Indicators will be designed as to monitor, where feasible:

- Implementation of the measure;
- Success in achieving the objectives of the measure;
- Changes which indicate failure (or anticipated failure) of the measure; and
- The likely source of failure of the failure.

3.1.6.5 Indicators will adhere to ‘SMART’ (specific, measurable, achievable, relevant, timely) principles as much as feasibly achievable considering the ecological context of the monitoring.

3.1.6.6 As per the guidance set out in Butler *et al.* (2024¹), indicators will as much as feasible:

- *"Link directly to conservation objectives which are undermined by the Proposed Development (Offshore);*
- *Respond rapidly to changes in the effectiveness of the compensatory measure;*
- *Change only if the effectiveness of the compensatory measure changes.*
- *Be feasible to measure using established methods and protocols; and*
- *Provide information on the likely cause of any failures in the effectiveness in the measure".*

3.1.6.7 This section will include detail on the team(s)/surveyors involved and a justification of their expertise.

3.1.6.8 Any potential caveats and/or assumptions that underpin the monitoring approach will be described and quantitative or qualitatively uncertainties in the robustness of the monitoring outcomes will be presented.

3.1.7 Adaptive Management

3.1.7.1 This section will present the process which will identify whether adaptive management will be required, including success criteria and the intervals or timepoints at which evaluation will take place. The proposed process for adaptive management will have been discussed and confirmed with the relevant stakeholders.

3.1.7.2 As per the Marine Directorate's guidance on ornithological compensatory measure development for offshore wind (DTA, 2021²), this section will describe both the data analysis approach that will be used, and the way that the results of this analysis will be used in determining whether the compensatory measure is effective, including the "limits of acceptable change".

3.1.7.3 This section will also detail a set of potential adaptive management options (corrective measures) which might be relied upon in the event that monitoring shows that the compensatory measures have not reached their objectives. Conditions under which corrective/adaptive measures will be triggered will also be discussed.

3.1.8 Reporting

3.1.8.1 This section will outline the reporting requirements regarding the implementation, monitoring and success of the compensation measure, as discussed and agreed with the steering group. Objectives and timescales for reporting will be confirmed, alongside an overview of the proposed content for the required reports.

3.2 Mammalian Predator Management and Eradication

3.2.1 Overview

3.2.1.1 An overview of the proposed compensation measure (including ecological effectiveness, wider ecological considerations, timing of delivery, monitoring requirements, adaptive management requirements and feasibility) can be found in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.2.2 Scale and Location

3.2.2.1 This section will discuss the scale of compensation required as per the relevant assessments. The scale of compensation will be informed through compensation calculations as outlined in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, and subsequently confirmed through the consent decision.

3.2.2.2 This section will set out the location(s) at which mammalian predator management or eradication will be undertaken. It will include evidence on the suitability of the site(s) to deliver compensation, based on the site selection detailed within Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, as well as further refinement using stakeholder consultation, further research and any relevant on-site monitoring.

3.2.2.3 Information on the securing of the relevant rights and permissions for the location will be detailed here.

3.2.3 Design of the Mammalian Predator Management Programme

3.2.3.1 This section will present the chosen approach, eradication process and wider delivery of the mammalian predator management and/or eradication programme. Ecological considerations to maximise the potential for success will also be discussed. This section will also outline any relevant biosecurity measures required to prevent incursion and ensure that compensation is delivered for the lifetime of the Proposed Development (Offshore).

3.2.3.2 The programme design will be discussed with relevant stakeholders post-consent to be agreed within the final IMP.

3.2.4 Delivery Mechanisms

3.2.4.1 This section will confirm the delivery process to successfully implement mammalian predator management, as well as outlining the stakeholders and/or partners involved and their responsibilities in the delivery. This section will also present the nature and status of all consents and any other relevant approvals that are needed to secure the implementation of mammalian predator management.

3.2.5 Implementation Timeline

3.2.5.1 This section will confirm the programme for the implementation of the mammalian predator measures and biosecurity measures, and the timescales for the anticipated delivery of compensation. Any lead-in times and predicted delivery of compensation quanta across the operational timeline of the Proposed Development (Offshore) will be set out here. For further discussion around timing of delivery of the proposed measures, see Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.2.6 Monitoring

3.2.6.1 This section will set out the specific monitoring objectives, plans, and schedules, as well as a description of how the proposed monitoring approach links to the objectives of the compensation measure.

3.2.6.2 The approach to monitoring development will be informed by “Scottish guidance on the principles underpinning the assessment of compensatory measures in relation to ecology, monitoring and socio-economics” (Butler *et al.*, 2024¹).

3.2.6.3 This section will include information on the frequency and duration of monitoring, including written protocols and indicators provided by surveys/monitoring. Also included will be detail on the types and quantity of data that will be collected, and a description of the proposed approach for processing and analysing the data. Power calculations may be considered where appropriate to demonstrate that the proposed data collection approach is sufficient to achieve monitoring objectives.

3.2.6.4 Indicators will be designed as to monitor, where feasible:

- Implementation of the measure;
- Success in achieving the objectives of the measure;
- Changes which indicate failure (or anticipated failure) of the measure; and
- The likely source of failure of the failure.

- 3.2.6.5 Indicators will adhere to 'SMART' (specific, measurable, achievable, relevant, timely) principles as much as feasibly achievable considering the ecological context of the monitoring.
- 3.2.6.6 As per the guidance set out in Butler *et al.* (2024¹), indicators will as much as feasible:
- *"Link directly to conservation objectives which are undermined by the Proposed Development (Offshore);*
 - *Respond rapidly to changes in the effectiveness of the compensatory measure;*
 - *Change only if the effectiveness of the compensatory measure changes.*
 - *Be feasible to measure using established methods and protocols; and*
 - *Provide information on the likely cause of any failures in the effectiveness in the measure."*
- 3.2.6.7 This section will include detail on the team(s)/surveyors involved and a justification of their expertise.
- 3.2.6.8 Any potential caveats and/or assumptions that underpin the monitoring approach will be described and quantitative or qualitatively uncertainties in the robustness of the monitoring outcomes will be presented.

3.2.7 Adaptive Management

- 3.2.7.1 This section will present the process which will identify whether adaptive management will be required, including success criteria and the intervals or timepoints at which evaluation will take place. The proposed process for adaptive management will have been discussed and confirmed with the relevant stakeholders.
- 3.2.7.2 As per the Marine Directorate's guidance on ornithological compensatory measure development for offshore wind (DTA, 2021²), this section will describe both the data analysis approach that will be used, and the way that the results of this analysis will be used in determining whether the compensatory measure is effective, including the "limits of acceptable change".
- 3.2.7.3 This section will also detail a set of potential adaptive management options (corrective measures) which might be relied upon in the event that monitoring shows that the compensatory measures have not reached their objectives. Conditions under which corrective/adaptive measures will be triggered will also be discussed.

3.2.8 Reporting

- 3.2.8.1 This section will outline the reporting requirements regarding the implementation, monitoring and success of the compensation measure, as discussed and agreed with the steering group. Objectives and timescales for reporting will be confirmed, alongside an overview of the proposed content for the required reports.

3.3 Avian Predator Management

3.3.1 Overview

- 3.3.1.1 An overview of the proposed compensation measure (including ecological effectiveness, wider ecological considerations, timing of delivery, monitoring requirements, adaptive management requirements and feasibility) can be found in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.3.2 Scale and Location

- 3.3.2.1 This section will discuss the scale of compensation required as per the relevant assessments. The scale of compensation will be informed through compensation calculations as outlined in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, and subsequently confirmed through the consent decision.
- 3.3.2.2 This section will set out the location(s) at which the avian predator management measures will be undertaken. It will include evidence on the suitability of the site(s) to deliver compensation, based on the site selection detailed within Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, as well as further refinement using stakeholder consultation, further research and any relevant on-site monitoring.
- 3.3.2.3 Information on the securing of the relevant rights and permissions for the location will be detailed here.

3.3.3 Design of the Avian Predator Management Programme

- 3.3.3.1 This section will present the chosen approach, technology and delivery of the avian predator management programme (e.g., the use of scaring techniques, for example the use of scarecrows, human disturbance, distress callers, humming lines and scarer ropes). Ecological considerations to maximise the potential for success will also be discussed.

3.3.3.2 The programme design will be discussed with relevant stakeholders post-consent to be agreed within the final IMP.

3.3.4 Delivery Mechanisms

3.3.4.1 This section will confirm the delivery process to successfully implement avian predator management, as well as outlining the stakeholders and/or partners involved and their responsibilities in the delivery. This section will also present the nature and status of all consents and any other relevant approvals that are needed to secure the implementation of avian predator management.

3.3.5 Implementation Timeline

3.3.5.1 This section will confirm the programme for the implementation of the avian predator management measures and the timescales for the anticipated delivery of compensation. Any lead-in times and predicted delivery of compensation quanta across the operational timeline of the Proposed Development (Offshore) will be set out here. For further discussion around timing of delivery of the proposed measures, see Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.3.6 Monitoring

3.3.6.1 This section will set out the specific monitoring objectives, plans, and schedules, as well as a description of how the proposed monitoring approach links to the objectives of the compensation measure.

3.3.6.2 The approach to monitoring development will be informed by "Scottish guidance on the principles underpinning the assessment of compensatory measures in relation to ecology, monitoring and socio-economics" (Butler *et al.*, 2024¹).

3.3.6.3 This section will include information on the frequency and duration of monitoring, including written protocols and indicators provided by surveys/monitoring. Also included will be detail on the types and quantity of data that will be collected, and a description of the proposed approach for processing and analysing the data. Power calculations may be considered where appropriate to demonstrate that the proposed data collection approach is sufficient to achieve monitoring objectives.

- 3.3.6.4 Indicators will be designed as to monitor, where feasible:
- Implementation of the measure;
 - Success in achieving the objectives of the measure;
 - Changes which indicate failure (or anticipated failure) of the measure; and
 - The likely source of failure of the failure.
- 3.3.6.5 Indicators will adhere to 'SMART' (specific, measurable, achievable, relevant, timely) principles as much as feasibly achievable considering the ecological context of the monitoring.
- 3.3.6.6 As per the guidance set out in Butler *et al.* (2024¹), indicators will as much as feasible:
- *"Link directly to conservation objectives which are undermined by the Proposed Development (Offshore);*
 - *Respond rapidly to changes in the effectiveness of the compensatory measure;*
 - *Change only if the effectiveness of the compensatory measure changes.*
 - *Be feasible to measure using established methods and protocols; and*
 - *Provide information on the likely cause of any failures in the effectiveness in the measure."*
- 3.3.6.7 This section will include detail on the team(s)/surveyors involved and a justification of their expertise.
- 3.3.6.8 Any potential caveats and/or assumptions that underpin the monitoring approach will be described and quantitative or qualitatively uncertainties in the robustness of the monitoring outcomes will be presented.

3.3.7 Adaptive Management

- 3.3.7.1 This section will present the process which will identify whether adaptive management will be required, including success criteria and the intervals or timepoints at which evaluation will take place. The proposed process for adaptive management will have been discussed and confirmed with the relevant stakeholders.
- 3.3.7.2 As per the Marine Directorate's guidance on ornithological compensatory measure development for offshore wind (DTA, 2021²), this section will describe both the data analysis approach that will be used, and the way that the results of this analysis will be used in determining whether the compensatory measure is effective, including the "limits of acceptable change".
- 3.3.7.3 This section will also detail a set of potential adaptive management options (corrective measures) which might be relied upon in the event that

monitoring shows that the compensatory measures have not reached their objectives. Conditions under which corrective/adaptive measures will be triggered will also be discussed.

3.3.8 Reporting

3.3.8.1 This section will outline the reporting requirements regarding the implementation, monitoring and success of the compensation measure, as discussed and agreed with the steering group. Objectives and timescales for reporting will be confirmed, alongside an overview of the proposed content for the required reports.

3.4 Bycatch Reduction

3.4.1 Overview

3.4.1.1 An overview of the proposed compensation measure (including ecological effectiveness, wider ecological considerations, timing of delivery, monitoring requirements, adaptive management requirements and feasibility) can be found in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.4.2 Scale and Location

3.4.2.1 This section will discuss the scale of compensation required as per the relevant assessments. The scale of compensation will be informed through compensation calculations as outlined in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, and subsequently confirmed through the consent decision.

3.4.2.2 This section will set out the location(s) at which bycatch reduction techniques will be delivered. It will include evidence on the suitability of the site(s) and fisheries to deliver compensation, based on the site selection detailed within Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, as well as further refinement using stakeholder consultation, fisheries engagement, further research and any relevant pre-implementation monitoring of bycatch reduction technique(s).

3.4.2.3 Information on the securing of the relevant rights and permissions will be detailed here.

3.4.3 Design of Bycatch Reduction Techniques

3.4.3.1 This section will present the chosen design and delivery of the bycatch reduction technique(s) (e.g., line weighting, bird scaring or tori lines, Bird Exclusion Devices) and any associated by-catch monitoring programme.

Ecological considerations to maximise the potential for success will also be discussed.

- 3.4.3.2 The programme design will be discussed with relevant stakeholders post-consent to be agreed within the final IMP.

3.4.4 Delivery Mechanism

- 3.4.4.1 This section will confirm the delivery process to successfully implement and monitor bycatch reduction technique(s) as well as outlining the fishers/fisheries, stakeholders and partners involved and their responsibilities in the delivery. This section will also present the nature and status any agreements and approvals that are needed to secure the implementation of bycatch reduction.

3.4.5 Partnership Agreements

- 3.4.5.1 This section will provide detail of any agreements to secure the implementation of the measure (e.g., memorandum of understandings, written contracts, etc.) with the relevant commercial fisheries partners. Any other relevant agreements and/or funding arrangements that are required for securing of the measure will be included in this section.

3.4.6 Implementation Timeline

- 3.4.6.1 This section will confirm the programme for the implementation of the bycatch reduction measures and the timescales for the anticipated delivery of compensation. Any lead-in times and predicted delivery of compensation quanta across the operational timeline of the Proposed Development (Offshore) will be set out here. It is estimated that a minimum of one to two years is needed to engage with the fishing industry and plan monitoring and trial implementation. For further discussion around timing of delivery of the proposed measures, see Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.4.7 Monitoring

- 3.4.7.1 This section will set out the specific monitoring objectives, plans, and schedules, as well as a description of how the proposed monitoring approach links to the objectives of the compensation measure.
- 3.4.7.2 The approach to monitoring development will be informed by "Scottish guidance on the principles underpinning the assessment of compensatory measures in relation to ecology, monitoring and socio-economics" (Butler *et al.*, 2024¹).
- 3.4.7.3 This section will include information on the frequency and duration of monitoring, including written protocols and indicators provided by

surveys/monitoring. Also included will be detail on the types and quantity of data that will be collected, and a description of the proposed approach for processing and analysing the data. Power calculations may be considered where appropriate to demonstrate that the proposed data collection approach is sufficient to achieve monitoring objectives.

3.4.7.4 Indicators will be designed as to monitor, where feasible:

- Implementation of the measure;
- Success in achieving the objectives of the measure;
- Changes which indicate failure (or anticipated failure) of the measure; and
- The likely source of failure of the failure.

3.4.7.5 Indicators will adhere to 'SMART' (specific, measurable, achievable, relevant, timely) principles as much as feasibly achievable considering the ecological context of the monitoring.

3.4.7.6 As per the guidance set out in Butler *et al.* (2024¹), indicators will as much as feasible:

- *"Link directly to conservation objectives which are undermined by the Proposed Development (Offshore);*
- *Respond rapidly to changes in the effectiveness of the compensatory measure;*
- *Change only if the effectiveness of the compensatory measure changes.*
- *Be feasible to measure using established methods and protocols; and*
- *Provide information on the likely cause of any failures in the effectiveness in the measure."*

3.4.7.7 This section will include detail on the team(s)/surveyors involved and a justification of their expertise.

3.4.7.8 Any potential caveats and/or assumptions that underpin the monitoring approach will be described and quantitative or qualitatively uncertainties in the robustness of the monitoring outcomes will be presented.

3.4.8 Adaptive Management

3.4.8.1 This section will present the process which will identify whether adaptive management will be required, including success criteria and the intervals or timepoints at which evaluation will take place. The proposed process for adaptive management will have been discussed and confirmed with the relevant stakeholders.

3.4.8.2 As per the Marine Directorate's guidance on ornithological compensatory measure development for offshore wind (DTA, 2021²), this section will describe both the data analysis approach that will be used, and the way

that the results of this analysis will be used in determining whether the compensatory measure is effective, including the “limits of acceptable change”.

- 3.4.8.3 This section will also detail a set of potential adaptive management options (corrective measures) which might be relied upon in the event that monitoring shows that the compensatory measures have not reached their objectives. Conditions under which corrective/adaptive measures will be triggered will also be discussed.

3.4.9 Reporting

- 3.4.9.1 This section will outline the reporting requirements regarding the implementation, monitoring and success of the compensation measure, as discussed and agreed with the steering group. Objectives and timescales for reporting will be confirmed, alongside an overview of the proposed content for the required reports.

3.5 Restoration or Maintenance of Breeding Sites

3.5.1 Overview

- 3.5.1.1 An overview of the proposed compensation measure (including ecological effectiveness, wider ecological considerations, timing of delivery, monitoring requirements, adaptive management requirements and feasibility) can be found in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.5.2 Scale and Location

- 3.5.2.1 This section will discuss the scale of compensation required as per the relevant assessments. The scale of compensation will be informed through compensation calculations as outlined in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, and subsequently confirmed through the consent decision.
- 3.5.2.2 This section will set out the location(s) at which the restoration or maintenance of breeding sites will be undertaken. It will include evidence on the suitability of the site(s) to deliver compensation, based on the site selection detailed within Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, as well as further refinement using stakeholder consultation, further research and any relevant on-site monitoring.
- 3.5.2.3 Information on the securing of the relevant rights and permissions for the location will be detailed here.

3.5.3 Design of Restoration or Maintenance Measures

3.5.3.1 This section will present the chosen approach, techniques and delivery of restoration or maintenance measures. Ecological considerations to maximise the potential for success will also be discussed.

3.5.3.2 The programme design will be discussed with relevant stakeholders post-consent to be agreed within the final IMP.

3.5.4 Delivery Mechanism

3.5.4.1 This section will confirm the delivery process to successfully implement restoration or maintenance measures, as well as outlining the stakeholders and/or partners involved and their responsibilities in the delivery. This section will also present the nature and status of all consents and any other relevant approvals that are needed to secure the implementation of restoration or maintenance measures.

3.5.5 Implementation Timeline

3.5.5.1 This section will confirm the programme for the implementation of the avian predator management measures and the timescales for the anticipated delivery of compensation. Any lead-in times and predicted delivery of compensation quanta across the operational timeline of the Proposed Development (Offshore) will be set out here. For further discussion around timing of delivery of the proposed measures, see Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.5.6 Monitoring

3.5.6.1 This section will set out the specific monitoring objectives, plans, and schedules, as well as a description of how the proposed monitoring approach links to the objectives of the compensation measure.

3.5.6.2 The approach to monitoring development will be informed by "Scottish guidance on the principles underpinning the assessment of compensatory measures in relation to ecology, monitoring and socio-economics" (Butler *et al.*, 2024¹).

3.5.6.3 This section will include information on the frequency and duration of monitoring, including written protocols and indicators provided by surveys/monitoring. Also included will be detail on the types and quantity of data that will be collected, and a description of the proposed approach for processing and analysing the data. Power calculations may be considered where appropriate to demonstrate that the proposed data collection approach is sufficient to achieve monitoring objectives.

- 3.5.6.4 Indicators will be designed as to monitor, where feasible:
- Implementation of the measure;
 - Success in achieving the objectives of the measure;
 - Changes which indicate failure (or anticipated failure) of the measure; and
 - The likely source of failure of the failure.
- 3.5.6.5 Indicators will adhere to 'SMART' (specific, measurable, achievable, relevant, timely) principles as much as feasibly achievable considering the ecological context of the monitoring.
- 3.5.6.6 As per the guidance set out in Butler *et al.* (2024¹), indicators will as much as feasible:
- *"Link directly to conservation objectives which are undermined by the Proposed Development (Offshore);*
 - *Respond rapidly to changes in the effectiveness of the compensatory measure;*
 - *Change only if the effectiveness of the compensatory measure changes.*
 - *Be feasible to measure using established methods and protocols; and*
 - *Provide information on the likely cause of any failures in the effectiveness in the measure."*
- 3.5.6.7 This section will include detail on the team(s)/surveyors involved and a justification of their expertise.
- 3.5.6.8 Any potential caveats and/or assumptions that underpin the monitoring approach will be described and quantitative or qualitatively uncertainties in the robustness of the monitoring outcomes will be presented.

3.5.7 Adaptive Management

- 3.5.7.1 This section will present the process which will identify whether adaptive management will be required, including success criteria and the intervals or timepoints at which evaluation will take place. The proposed process for adaptive management will have been discussed and confirmed with the relevant stakeholders.
- 3.5.7.2 As per the Marine Directorate's guidance on ornithological compensatory measure development for offshore wind (DTA, 2021²), this section will describe both the data analysis approach that will be used, and the way that the results of this analysis will be used in determining whether the compensatory measure is effective, including the "limits of acceptable change".
- 3.5.7.3 This section will also detail a set of potential adaptive management options (corrective measures) which might be relied upon in the event that

monitoring shows that the compensatory measures have not reached their objectives. Conditions under which corrective/adaptive measures will be triggered will also be discussed.

3.5.8 Reporting

3.5.8.1 This section will outline the reporting requirements regarding the implementation, monitoring and success of the compensation measure, as discussed and agreed with the steering group. Objectives and timescales for reporting will be confirmed, alongside an overview of the proposed content for the required reports.

3.6 Conservation Management Funding

3.6.1 Overview

3.6.1.1 An overview of the proposed compensation measure (including ecological effectiveness, wider ecological considerations, timing of delivery, monitoring requirements, adaptive management requirements and feasibility) can be found in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

3.6.2 Scale and Location

3.6.2.1 This section will discuss the scale of compensation required as per the relevant assessments. The scale of compensation will be informed through compensation calculations as outlined in Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, and subsequently confirmed through the consent decision.

3.6.2.2 This section will set out the location(s) at which the conservation management funding will be implemented. It will include evidence on the suitability of the site(s) to deliver compensation, based on the site selection detailed within Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection, as well as further refinement using stakeholder consultation, further research and any relevant on-site monitoring.

3.6.2.3 Information on the securing of the relevant rights and permissions will be detailed here.

3.6.3 Delivery Mechanisms

3.6.3.1 This section will confirm the delivery process to successfully implement restoration or maintenance measures, as well as outlining the stakeholders and/or partners involved and their responsibilities in the delivery. This

section will also present the nature and status of any relevant approvals that are needed to secure the implementation of restoration or maintenance measures.

3.6.4 Partnership Agreements

3.6.4.1 This section will provide detail of any agreements to secure the implementation of the measure (e.g., memorandum of understandings, written contracts, etc.) with the relevant delivery partner of the programme that is being funded as the compensation delivery. Any other relevant agreements and/or funding arrangements that are required for securing of the measure will be included in this section.

3.6.5 Implementation Timeline

3.6.5.1 This section will confirm the programme for the funding and the timescales for the anticipated delivery of compensation.

3.6.6 Monitoring and Adaptive Management

3.6.6.1 It is not anticipated that monitoring and adaptive management will be needed (or feasible) for a compensation measure which involves the funding of existing conservation management plans/programmes. This will however be discussed with the steering group during IMP development, and any details recorded in this section.

3.6.7 Reporting

3.6.7.1 This section will outline the reporting requirements regarding the implementation, monitoring and success of the compensation measure, as discussed and agreed with the steering group. Objectives and timescales for reporting will be confirmed, alongside an overview of the proposed content for the required reports.

3.7 Strategic Compensation

3.7.1.1 Should the Applicant opt to contribute to a strategic compensation fund as and when a viable pathway comes available, this section will contain details of the proposed compensation package and delivery mechanism. Such strategic measures may be used in addition to, instead of, or to provide adaptive management for the proposed developer-led compensation measures. For further discussion around strategic and collaborative delivery of compensation, see Application Document 16, Appendix 16-3: Caledonia South Compensation Plan and Site Selection.

4 References

¹ Butler, A., Searle, K., Hague, A., Jones, E. and Daunt. F. (2024) 'Scottish guidance on the principles underpinning the assessment of compensatory measures in relation to ecology, monitoring and socio-economics'

² DTA (2021) 'Framework to Evaluate Ornithological Compensatory Measures for Offshore Wind'. Process Guidance Note for Developers

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