Rampion 2 Wind Farm

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Examination Documents:

Guillemot and Razorbill Implementation and Monitoring Plan (clean)

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A	09/07/2024	Final for Deadline 5	GoBe	WSP	RED
B	01/08/2024	Updated at Deadline 6	GoBe	WSP	RED

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1. Background

1.1 Project overview

1.1.1 Rampion Extension Development Limited (hereafter referred to as 'RED') (the 'Applicant') is developing the Rampion 2 Offshore Wind Farm Project ('Rampion 2') located adjacent to the existing Rampion Offshore Wind Farm Project ('Rampion 1') in the English Channel.

1.1.2 Rampion 2 will be located between 13km and 26km from the Sussex Coast in the English Channel and the offshore array area will occupy an area of approximately 160km^2. A detailed description of the Proposed Development is set out in **Chapter 4: The Proposed Development, Volume 2** of the Environmental Statement (ES) **[APP-045]** (updated at Deadline 6), submitted with the Development Consent Order (DCO) Application.

1.1.3 Before a DCO can be granted, the Secretary of State of the Department for Energy Security and Net Zero is required to undertake a Habitats Regulations Assessment (HRA) under Regulation 63 of the Habitats Regulations (2017 and Regulation 28 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations (2017)). The Applicant must therefore provide the Examining authority and the Secretary of State with the information it needs to undertake the HRA and establish the potential implications of Rampion 2 for The National Site Network. The National Site Network comprises of 'European sites' in the UK that already existed on 31 December 2020 (or proposed to the EC before that date) and established under the Nature Directives (Department for the Environment, Food and Rural Affairs (Defra), 2021).

1.1.4 Where the potential for adverse effects on integrity (AEoI) cannot be ruled out, measures providing compensation for the impacted populations can be considered. In the case of Rampion 2, the Applicant's **Report to Inform Appropriate Assessment [REP5-025]** (updated at Deadline 6) concluded that Rampion 2 will not result in an AEoI on any sites within the National Site Network alone or in-combination with other plans / projects. However, this Guillemot and Razorbill Implementation and Monitoring Plan ("GRIMP") has been developed in the event that the Secretary of State does not agree with the conclusions of the Applicant's **Report to Inform Appropriate Assessment [REP5-025]** (updated at Deadline 6) in relation to the impact from the operation of the proposed wind farm on guillemot and razorbill at Flamborough and Filey Coast Special Protection Area (FFC SPA) and/or guillemot from the Farne Islands SPA.

1.2 Document Purpose

1.2.1 This document will outline the Guillemot and Razorbill Implementation and Monitoring Plan (GRIMP) for the delivery of the Rampion 2 without prejudice guillemot and razorbill compensation (see **Habitats Regulations Assessment (Without Prejudice) Derogation Case [REP4-014]** (updated at Deadline 6)). The preferred compensation strategy of mitigating the effects of recreational disturbance will be justified and presented along with any previous stakeholder

input or consultation. This document also outlines the other stakeholders that will be involved in this compensation process, including any landowners and partner offshore wind farm (OWF) developers. In addition, this document presents a timeline for the implementation of the compensation measure. The ongoing maintenance, monitoring, and adaptive management programs are also presented.

1.2.2 As an alternative option to measures that reduce recreational disturbance, the Applicant may instead choose to participate in the Department for Environment Food and Rural Affairs (Defra) strategic compensation via the Marine Recovery Fund (MRF). If the MRF is progressed as the preferred option, then the Applicant will cease involvement with measures to reduce recreational disturbance.

1.3 Species Overview

Guillemot

1.3.1 Guillemot, a member of the auk family (Alcidae), is a cliff-nesting seabird. They nest in large colonies on rocky cliffs around the UK coastline. There are approximately 1,265,888 individual breeding guillemot in the UK, with the majority of the population found in Scotland and the north of England. The UK population has increased by 23% over the last 40 years but has declined since the last full census (1998 - 2002) by 11% (Burnell *et al.*, 2023). Guillemot have two defined bioseasons; breeding season from March to July, and non-breeding season from August to February (Furness, 2015). During their breeding season guillemot forage near their coastal colonies, using pursuit diving to hunt small fish, especially sandeel (*Ammodytes tobianus*), as well as crustaceans (Birdlife International, 2023). Outside of their breeding season guillemot disperse widely at sea throughout UK waters. They have an average lifespan of 23 years, and reach breeding maturity after five years (Robinson, 2005).

Razorbill

1.3.2 Razorbill are also cliff-nesting seabirds from the auk family. There are approximately 225,015 individual breeding razorbill in the UK (Burnell *et al.*, 2023). Whilst the breeding abundance of razorbill has increased since the late 1980s, current trends show an overall population decline since 2017 (JNCC, 2021). However, despite these recent declines the population still increased by 18% between the 1998 - 2002 and 2015 - 2021 census periods. This species is long-lived with an average lifespan of 13 years and reaches breeding maturity after 4 years (Robinson, 2005). The razorbill has four defined bioseasons: breeding season (April - July), post-breeding season (August - October), migration-free winter season (November - December) and pre-breeding migration season (January - March) (Furness, 2015). Razorbill are pursuit diving seabirds and prey mainly on sandeel and clupeids (Clupeidae) during the breeding season (Birdlife International, 2023).

1.4 The need for compensation

1.4.1 As noted above, the Applicant's **Report to Inform Appropriate Assessment [REP5-025]** (updated at Deadline 6) concluded that Rampion 2 does not contribute materially to the in-combination total impact to the FFC SPA or the Farne Islands SPA.

1.4.2 There are no paragraphs in the 2011 NPS relevant to the application in terms of the requirements for the securability and provision of compensation options. The Applicant has therefore progressed a without prejudice derogation case, which aligns with requirements within the Energy National Policy Statement (EN-1) revised 2023 version (DESNZ, 2023) which is a material consideration for the determination of the application:

1.4.3 *"Before submitting an application, applicants should seek the views of the SNCB and Defra/Welsh Government as to the suitability, securability and effectiveness of the compensation plan to ensure the development will not hinder the achievement of the conservation objectives for the protected site"* [5.4.31].

1.4.4 *"Provision of such information will not be taken as an acceptance of adverse impacts and if an applicant disputes the likelihood of adverse impacts, it can provide this information as part of its application 'without prejudice' to the Secretary of State's final decision on the impacts of the potential development"* [5.4.28].

1.4.5 Having demonstrated that there are no Alternative Solutions and that there are imperative reasons of overriding public interest (IROPI) for Rampion 2 in (**Habitats Regulations Assessment (Without Prejudice) Derogation Case [REP4-014]** (updated at Deadline 6)), this report demonstrates that compensatory measures can be put in place, if necessary, to ensure the overall coherence of the National Site Network is protected, should the Secretary of State conclude AEoI in respect to the guillemot and razorbill features of the FFC SPA and the guillemot features of the Farne Islands SPA.

2. Consultation

2.1.1 The Applicant recognises the importance of engaging with the relevant stakeholders with respect to derogation and the development of any potential compensation measures. The Applicant has therefore sought the advice of key stakeholders and kept them updated on project developments. The Applicant has engaged openly through consultations and a series of online Evidence Plan Process (EPP)) Expert Topic Group (ETG) meetings from December 2020 to April 2023. Attendees have included Natural England (the SNCB), the Marine Management Organisation (MMO), Centre for Environment, Fisheries and Aquaculture Science (Cefas), Sussex Ornithology Society, Sussex Wildlife Trust, The Wildlife Trust, and the Royal Society for the Protection of Birds (RSPB). It should be noted that the topic of compensation for guillemot and razorbill features from the respective SPAs was only introduced post-submission within the relevant representations.

2.1.2 The Applicant will summarise all relevant consultation that has been undertaken during the development of the Final GRIMP. Going forward, key decisions, agreements, and any outstanding issues remaining under discussion (with resolution pathways) will be captured. Ongoing engagement, for example to provide updates on monitoring, (post-discharge of the GRIMP) will be outlined here.

Table 2-1 Summary of relevant consultation

Date	Consultee	Consultation	Description / Agreement
17th April	Natural England	Meeting to discuss compensation measures	The Applicant agreed to submit a without prejudice derogation case for guillemot and razorbill features of the FFC SPA and the guillemot feature of the Farne Islands SPA. In addition, some potential proposed measures were discussed. As a result, a **Guillemot and Razorbill Evidence and Roadmap [REP5-117]** was submitted at Deadline 3 (updated at Deadline 6).

Date	Consultee	Consultation	Description / Agreement
3rd June	Natural England	Natural England's Advice on the Kittiwake Implementation and Monitoring Plan, and the Guillemot and Razorbill Evidence and Roadmap [REP4-091]	Natural England's response to the **Guillemot and Razorbill Evidence and Roadmap [REP5-117]** (updated at Deadline 6)**.** Natural England are broadly supportive of the measures proposed but highlight the need for significant amounts of on-site monitoring and engagement with local experts to establish a baseline for the current level of disturbance and its impact on colony productivity.

3. Proposed compensation measures

3.1.1 Compensation measures that help reduce the effects of human disturbance on guillemot and razorbill were selected. This area of focus was selected because the **Guillemot and Razorbill Evidence and Roadmap [REP5-117]** (updated at Deadline 6) identified several measures that could potentially address the effects of recreational disturbance and can be implemented using the resources and timelines available to the project. These compensation measures include strategies to reduce disturbance from recreational activity, including signage, visitor access statements, restriction of dogs, restriction of visitor time, restriction of visitor approach distance, restriction of boat time, restriction of boat approach distance, seasonal closures, birdwatching codes, wardens, and coordination with equipment hire businesses and recreational organisations. The ecological evidence that supports these compensation measures is summarised in Section 5.1.1 and provided in detail within the **Guillemot and Razorbill Evidence and Roadmap [REP5-117]** (updated at Deadline 6).

3.1.2 Compensation measures will need to be completed before the Proposed Development becomes operational so that guillemot and razorbill receive population benefits before the impacts of the OWF take place. The selection process for compensation measures was made through consultation with key conservation organisations. These consultations helped identify compensation measure selection based on available project timelines and resources.

3.1.3 In addition, there are links between recreational disturbance and other key seabird threats, including avian flu, predation, and litter. Therefore, selecting recreational disturbance as a focus for compensation can also bring added benefits to guillemot and razorbill by indirectly addressing or alleviating other threats. Humans can be a vector for avian flu and mammalian predators at seabird colonies. Furthermore, flushing as a result of recreational disturbance can increase avian predation. Increased human presence around coastal areas also results in higher concentrations of litter. Therefore, though recreational disturbance has been chosen as a focus area for compensation, a reduction in recreational disturbance will also bring benefits to guillemot and razorbill by indirectly addressing other pressures. A reduction in human proximity to guillemot and razorbill may reduce some of the pressures from avian flu, predation, and litter.

3.1.4 The longlisting and shortlisting process for site selection is discussed in further detail in **Section 4.2**. However, compensation measures that help reduce the effects of human disturbance are relevant across various guillemot and razorbill colonies based on existing implementations and key challenges at each site.

3.1.5 Signage, visitor access statements, seasonal closures to reduce both disturbance and the spread of avian flu, birdwatching codes, warden presence, coordination with equipment hire businesses and recreational organisations were determined to be feasible measures for every key site. These measures have not yet been implemented at these sites, and therefore provide additionality to any current site management. Furthermore, restriction of dogs, restriction of visitor time, restriction

of visitor approach distance, restriction of boat time, restriction of boat approach distance are relevant for some, but not all sites.

4. Scale and location of compensation.

4.1 Predicted Impact

4.1.1 As detailed in the Applicant's **Report to Inform Appropriate Assessment [REP5-025]** (updated at Deadline 6), the Proposed Development will potentially impact the guillemot and razorbill features of the FFC SPA through a minimal in-combination contribution of 1.26 guillemot and 1.23 razorbill mortalities per annum using a 50% displacement rate and 1% mortality rate and the guillemot features of the Farne Islands SPA through a minimal in-combination contribution of 1.07 guillemot mortalities per annum using a 50% displacement rate and 1% mortality rate. The **Report to Inform Appropriate Assessment [REP5-025]** (updated at Deadline 6) concludes therefore that there is no potential for an increased risk of an AEoI to the conservation objectives of the guillemot and razorbill features of the FFC SPA or the Farne islands SPA in relation to disturbance and displacement effects from Rampion 2 alone and in-combination with other OWFs.

4.1.2 However, the FFC SPA and Farne Islands SPA are considered particularly sensitive to adverse impacts and Natural England has advised that they cannot rule out an AEoI in-combination with other plans and projects.

Estimated compensation quantum

4.1.3 The method used to estimate the compensation requirement for the Hornsea Project Four was applied to the Rampion 2 impact of 1.26 breeding adult guillemot and 1.23 breeding adult razorbill at FFC SPA and 1.07 guillemot at the Farne Islands SPA to calculate the number of additional breeding pairs required to compensate for the impact. Although this method provides a rough estimate of the required compensation quanta, as it has been accepted by the Secretary of State in determining to grant consent for that project, it does not consider the additional boost to the productivity of auks that benefit from disturbance reduction and therefore is a overestimate of the compensation requirements for Rampion 2. Further discussions with NE are required to agree an appropriate compensation calculation methodology, which will likely lead to a reduction in the compensation quantum requirements for Rampion 2. Therefore, until an appropriate methodology has been agreed with Natural England the Applicant considers that any requirements should be presented in terms of impact numbers. In addition, it is highly likely that the measure will be progressed in collaboration with other projects, and therefore it would be beneficial to have a clearer picture of the compensation needs of the other projects before final sites and quantum of compensation are agreed.

4.1.4 The Hornsea Four method works by using the guillemot and razorbill UK national survival and productivity rates in Horswill and Robinson (2015) to calculate the survival until adulthood. This is then divided by the productivity to determine the number of nests, and consequently the number of fledglings, required to re-enter the population as breeding adults. The calculations are presented in **Table 4-1** below but further information on the calculation methodology is presented in the

Guillemot and Razorbill Evidence and Roadmap [REP5-117] (updated at Deadline 6). A range of displacement rates and compensation ratios of 1:1, 2:1, and 3:1 have been presented.

4.1.5 The Applicant considers the CIV at 50% displacement and 1% mortality to be an appropriate level of compensation, given the low level of impact and connectivity to the impacted SPAs, but also accounting for the low connectivity between the location of the proposed compensation measures and the impacted SPAs.

Table 4-1 Compensation quanta at 50:1 and 70:2 displacement and mortality ratios, calculated from the central impact values to FFC SPA and Farne Islands SPA using the Hornsea Four compensation calculation method.

Species	SPA	Displacement/ mortality rates	Impact	1:1	2:1	3:1
Guillemot	FFC	50:1	1.26	5.35	10.70	16.05
		70:2	3.53	15.00	30.00	45.00
Razorbill	FFC	50:1	1.23	10.77	21.54	32.31
		70:2	3.45	30.22	60.44	90.66
Guillemot	Farne Islands	50:1	1.07	4.55	9.10	13.65
		70:2	2.99	12.71	25.42	38.13

4.2 Location for implementation

Site Longlisting and Shortlisting Process

4.2.1 Potential sites that could be selected for compensation were limited to the south west of England due to the relatively high abundance of guillemot and razorbill in the region and the sought provision of compensation for English guillemot and razorbill colonies (given the location of the Proposed Development). Whilst there is also a large population of guillemot and razorbill along the FFC SPA, this site is already managed, so options to provide additional management are limited. In addition, there are very few other guillemot or razorbill colonies along the east-coast of England. A long list of potential sites was therefore selected from seabird colonies that fell within the boundaries of the South West Inshore and South West Offshore Marine Plan 2021 (Defra, 2021).

4.2.2 After the longlist of sites was compiled, the shortlisting process involved determining each colony's population, health and susceptibility to human disturbance (see **Table 4-2**). For full details of the shortlisting process see the **Guillemot and Razorbill Evidence and Roadmap [REP5-117]** (updated at Deadline 6)**.**

4.2.3 The final short list of sites that were surveyed during the 2024 breeding season is presented in **Table 4-2**.

Site Survey Results

4.2.4 All ten sites were surveyed between 21st May and 1st June 2024 with colony counts (where possible), disturbance, predation and habitat and land use were all assessed for each site. For full details of the survey, see the **Guillemot and Razorbill Evidence and Roadmap [REP5-117]** (updated at Deadline 6).

4.2.5 Three sites, North Cornwall 2, Tresungers Point and Lyre Rock have high potential for future compensation measures. At the North Cornwall 2 site disturbance was recorded on four occasions caused by sea safari ribs and boats approaching too close to the colony. No disturbance was recorded at Tresungers Point, however the colony is low on the cliff face and an outdoor pursuits company is based very close by and therefore the potential for disturbance is high. Lye Rock had 75 guillemots present but none were confirmed as breeding and most were flushed off the island by a group of coasteerers. The only birds breeding on the island were razorbills, high up on the cliff face. There is a possibility that disturbance from the water is preventing any birds from breeding on suitable ledges further down the cliff face. The bay itself hosts several other colonies and has potential for a collaborative approach.

4.2.6 Two sites, Carvannet to Portreath 3 and Treyarnon to Merope, have a moderate potential for future compensation measures, the main issue due to locality to busy tourist areas and local outdoor pursuits businesses. However it is difficult to monitor the whole colony so productivity monitoring may be difficult.

4.2.7 Three Cornish sites have low potential for future compensation measures, Bawden Rocks, Carter's Rock and Grower Rock. Bawden Rocks was too far offshore to monitor properly, and most breeding birds were out of view from land. Carter's Rock had no birds breeding on it and the most likely breeding spots on the island are on the north facing cliffs not viewable from land. Growers Rock was another colony that was very hard to view from the mainland and the location is quite far from potential disturbance sources.

4.2.8 Both the North Devon sites, Highveer Point and Lynton 1 & 2, were found to have low potential for future compensation measures. Both sites were hard to view and only parts of the colony or none of it was visible from land. Highveer point was also deemed to have low potential for disturbance due to the distance from any access point to the sea for kayakers or paddleboarders etc. Lynton 1 & 2 has more potential for disturbance, with sea safari ribs visiting the coast regularly, however there are sites with higher potential in Cornwall that would be better to pursue (**Table 4-2**).

4.2.9 There were limitations to the surveys carried out, firstly, the visits were conducted as a snapshot on one day, so assessing disturbance and predation was difficult. There was a predominant northerly wind for much of the period which created a swell along the north coast of Cornwall, limiting the potential for paddleboarders and kayakers to get out.

Table 4-2 Guillemot and razorbill colonies selected for compensation measures.

Site	Guillemot SMP recent count (IND)	Guillemot colony trend	Razorbill SMP recent count (IND)	Razorbill colony trend	Potential for compensation measures
Bawden Rocks	20 (2018)	Decreasing	70 (2018)	Increasing	Low
Carters Rocks	4 (2017)	Decreasing	0 (2017)	Decreasing	Low
Carvannet – Portreath 3	205 (2016)	Increasing	4 (2016)	Stable	Moderate
Grower Rock	41 (2015)	Decreasing	151 (2015)	Increasing	Low
Highveer Point	21 (2023)	Decreasing	23 (2023)	Decreasing	Low
Lye Rock	0 (2015)	N/A	0 (2015)	Decreasing	High
Lynton 1 & 2	240 (2023)	Yes (Both)	34 (2023)	Decreasing	Low
North Cornwall 2	84 (2017)	N/A	49 (2017)	N/A	High
Tresungers Point	38 (2017)	N/A	70 (2017)	Increasing	High
Treyarnon - Merope	22 (2020)	N/A	6 (2020)	Decreasing	Moderate

Key Site Challenges

4.2.10 The implementation of any schemes to reduce recreational disturbance may have difficulty gaining support and agreement from the relevant landowners and management organisations. In addition, there could be added complications if businesses, for example Equipment Hire Businesses and Recreational Activity Organisations, feel that any restrictions may be detrimental to the business. This will require careful planning and early engagement with key stakeholders.

5. Design of compensation measures

5.1.1 This section will summarise the design for the selected compensation measures, including ecological considerations, structural designs and layout, which ensure the compensation measure has the maximum potential for success.

5.2 Ecological evidence

5.2.1 A detailed review of evidence has been provided in the **Guillemot and Razorbill Evidence and Roadmap** **[REP5-117]** (updated at Deadline 6)**.**

5.2.2 Recreational activities can disturb guillemot and razorbill both in the marine environment (where the species forage), and on their cliff breeding sites. Various recreational activities, including walking, rock climbing and coasteering, birdwatching, the use of watercraft, and the use of aircraft can affect these auks.

5.2.3 Some key measures that are being considered to reduce the effects of recreational disturbance are:

- Signage and Wardens
- Visitor Access Statements
- Restriction of Dogs
- Restriction of Visitor Time
- Restriction of Visitor Approach Distance
- Restriction of Boat Time
- Restriction of Boat Approach Distance
- Seasonal Closures
- Birdwatching Codes
- Coordination with Equipment Hire Businesses and Recreational Organisations

5.2.4 Further information on these measures can be found in the **Guillemot and Razorbill Evidence and Roadmap** **[REP5-117]** (updated at Deadline 6)**.** Following the site investigations the measures that show the greatest promise for successful mitigation, are those activities disturbing birds nesting on the cliff from below. For example, disturbance from coasteering and boat trips.

6. Delivery

6.1.1 This section will summarise how the compensation measures will be secured and delivered to ensure the maximum potential for success.

6.2 Delivery overview

6.2.1 This section will outline the delivery process, including the status of all consents, commercial agreements and other relevant approvals that may be necessary for the compensation measure and a programme for any outstanding consents.

6.2.2 Initial visits to all the above sites have been undertaken to determine what pressures are present at the shortlisted colonies and across the wider area (see Appendix A in **Guillemot and Razorbill Evidence and Roadmap [REP5-117]** (updated at Deadline 6)). Post-consent, it will be necessary to pursue further site-specific surveys at the final colonies to conduct productivity monitoring during breeding season, which can be used as a baseline upon which the population-level effects of any compensation measures can be analysed.

6.2.3 An adaptive management plan will also be further developed post-consent in case any compensation measures need to be adjusted to improve their efficacy in the post-implementation phase. A steering group will be set-up to decide on and coordinate future monitoring, reporting, and adaptive management plans with relevant stakeholders. Finally, a reporting system will be developed to communicate the efficacy of any compensation measures to relevant stakeholders.

6.3 Collaborative compensation delivery

6.3.1 As part of the DCO application, RED is required to produce a Report to Inform Appropriate Assessment (RIAA) to provide the information required by the Competent Authority in order to undertake its Habitats Regulation Assessment (HRA) and Appropriate Assessment (AA). The RIAA undertaken for the Proposed Development did not identify any adverse effects as the annual predicted impact of displacement from the Proposed Development array and buffer is 1.26 and 1.23 breeding adult mortalities attributed to the FFC SPA on guillemot and razorbill, respectively and 1.07 breeding adult mortalities attributed to the Farne Islands SPA (**Report to Inform Appropriate Assessment [REP5-025]** (updated at Deadline 6)). This low level of change would not be detectable based on an increase in baseline mortality of less than 0.1%. Following discussions with Natural England, and after the recent Proposed Development relevant representations, the Proposed Development has presented a without prejudice case for guillemot and razorbill.

6.3.2 As guillemot and razorbill mortalities attributed to the Proposed Development consist of very low numbers of potentially affected birds, discussions with Natural England have suggested that a strategic approach to compensation is the preferred approach. If compensation is required, a collaborative approach between

RED and Five Estuaries Offshore Wind Farm Limited (VE OWFL) would likely be an appropriate option. VE OWFL is the DCO applicant for Five Estuaries Offshore Wind Farm (hereafter VE).

6.3.3 Both developers will work together to deliver compensation across appropriate sites that have been selected between the two projects. This collaboration allows the management, implementation, and monitoring of compensation measures to be fully aligned across several sites due to the sharing of resources across projects. This increases the likelihood of successful compensation measures that can distribute benefits across multiple colonies and individuals.

6.4 Delivery timescales

6.4.1 The delivery of compensation measures will be discussed and finalised post-consent via a steering group. Measures acting on productivity will take several years to benefit the population, whereas those that increase survival will have an immediate benefit.

6.4.2 Recreational disturbance will impact on both the survival and productivity. Several colonies will be progressed to the next stage of selection based on the evidence gathered during the site-investigations. The exact benefit of implemented measures will be finalised post-consent after robust productivity data has been collected. An initial prediction of the potential benefit is provided below.

6.5 Potential benefit

6.5.1 Robust productivity data is required to more accurately estimate the future benefit of carrying out compensation measures. However, an initial estimate has been made based on historical maximum population counts at the short-listed colonies. The results are provided in the table below. These should not be treated as a maximum benefit because both the number of breeding birds and the productivity can be increased at these sites to beyond historical maximums in many cases.

6.5.2 The potential benefits in **Table 6-1** are far greater than the estimated compensation quantum requirements provided using the Hornsea Four methodology of 9.90 guillemot and 10.77 razorbill at a 1:1 ratio. If required, these sites also have the potential to compensate for impacts arising using Natural England's preferred assessment parameters of 70% displacement and 2% mortality.

6.5.3 The full potential will be calculated post-consent once site specific measures are finalised, and a clearer picture of the compensation needs is obtained from other projects that will potentially collaborate on the delivery of this measure.

Table 6-1 Estimated potential benefit of measures at the short-listed sites. Numbers are in breeding birds (individuals).

Site / Colony	Guillemot			Razorbill		
	Historic peak	Current population	Difference	Historic peak	Current population	Difference
Bawden Rocks	130	20	110	70	70	0
Carters Rocks	47	4	43	49	0	49
Carvannet – Portreath 3	205	205	0	5	4	1
Grower Rock	81	41	40	151	151	0
Highveer Point	53	53	0	178	23	155
Lye Rock	124	0	124	32	0	32
Lynton 1 & 2	361	240	121	117	34	83
North Cornwall 2	134	84	50	49	49	0
Tresungers Point	67	38	29	70	70	0
Treyarnon - Merope	31	17	14	8	6	12
Total	1,233	702	**531**	739	407	**332**

7. Monitoring and adaptive management

7.1.1 If it is determined by the Secretary of State that an AEoI cannot be ruled out, then as part of the Final GRIMP an Offshore Ornithology Engagement Group (OOEG) will be created/or joined post consent to inform the delivery of the guillemot and razorbill compensation measures and ongoing monitoring and adaptive management measures set out in the DCO. This would be secured through a schedule that will be included in the draft DCO if the derogation case is required.

7.1.2 Membership and meeting schedule of the OOEG is yet to be defined but membership is likely to comprise multiple developers and key stakeholders. Once in place, members of the OOEG will finalise schedules for monitoring and implementation.

7.1.3 Monitoring will be required for all stages of the proposed compensation measures. The details of monitoring proposals will be discussed with the OOEG, with key details to be agreed upon including the frequency, duration, and nature of monitoring methodology, as well as data analysis and reporting requirements.

7.2 Monitoring Plan

7.2.1 This section will identify the monitoring and adaptive management principles and processes that have been agreed with the OOEG, including the scenarios under which adaptive management measures are required.

7.2.2 It is likely that control sites may need to be monitored in addition to the site of implementation in order to estimate the benefit of the measure. This will help to account for other confounding variables and natural fluctuations in the auk populations over time.

7.2.3 It will be developed post-consent taking into account the evidence base that has been provided in support of the guillemot and razorbill measures.

7.3 Adaptive management

7.3.1 Should post-implementation monitoring reveal that the compensation programme is unsuccessful, or less successful than anticipated, an assessment will be undertaken to determine the reasons underlying the lack of success, and to inform the next steps. Notably, the next steps will consist of identifying potential improvements to the implemented measure, based on potential issues discovered during the assessment. Should the assessment determine that the measure cannot be improved or extended sufficiently, then alternatives, such as contribution to the MRF (or equivalent), will be considered in consultation with the OOEG. The project will not commit to adaptive measures if the evidence suggests that the reason for lack of success is out of the project's control e.g. climate change or reduction in prey availability.

8. Reporting timeframes

8.1.1 Following the breeding season, an annual report will be produced and provided to the relevant stakeholders by the end of the year. If applicable, this may be provided in collaboration with other projects/developers. An OOEG/stakeholders meeting will be organised following each years' monitoring to present any findings and will discuss any reporting issues or any adaptive management measures that may be required.

8.1.2 The planned timelines for the annual reporting will follow the stages below:

- Monitoring data collected from the season received by the end of August;
- Findings from the data presented to the OOEG/stakeholders by end of September;
- Draft report circulated by end of October;
- Finalised report submitted to relevant stakeholders by start of December;
- Approval/final comments by January the following year; and
- Adaptive management begins where required prior to the breeding season.

9. References

Allbrook, D.L. and Quinn, J.L. (2020), '*The effectiveness of regulatory signs in controlling human behaviour and Northern gannet (Morus bassanus) disturbance during breeding: An experimental test*', Journal for Nature Conservation, 58: 125915.

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10. Glossary of terms and abbreviations

Table 10.1 Glossary of terms and abbreviations

Term	Definition
AEoI	Adverse Effect on Integrity
DEFRA	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security & Net Zero
DCO	Development Consent Order
FFC	Flamborough and Filey Coast
GRIMP	Guillemot and Razorbill Implementation and Monitoring Plan
HRA	Habitats Regulations Assessment
IROPI	Imperative Reasons of Overriding Public Interest
MRF	Marine Recovery Fund
NE	Natural England
NSIP	Nationally Significant Infrastructure Project
OOEG	Offshore Ornithology Engagement Group
OWF	Offshore Wind Farm
RIAA	Report to Inform Appropriate Assessment
SMP	Seabird Monitoring Program
SPA	Special Protection Area

Rampion 2
WIND FARM