NORTH FALLS

Offshore Wind Farm

HABITATS REGULATIONS ASSESSMENT

Appendix 5 Guillemot and Razorbill Compensation Document

Document Reference:	7.2.5
Volume:	7
APFP Regulation:	5(2)(g)
Date:	July 2024
Revision:	0

NORTH FALLS
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Project	North Falls Offshore Wind Farm
Document Title	Habitats Regulations Assessment Appendix 5 Guillemot and Razorbill Compensation Document
Document Reference	7.2.5
APFP Regulation	5(2)(g)
Supplier	Royal HaskoningDHV
Supplier Document ID	PB9244-RHD-ZZ-OF-RP-YE-0267

Revision	Date	Status/Reason for Issue	Originator	Checked	Approved
0	July 2024	Submission	RHDHV	NFOW	NFOW

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Glossary of Acronyms

AEoI	Adverse Effect on Integrity
AON	Apparently occupied nests
CIMP	Compensation Implementation and Monitoring Plan
DCO	Development Consent Order
Defra	Department for Environment, Food & Rural Affairs
DEP	Dudgeon Extension project
DESNZ	Department of Energy Security and Net Zero
EPP	Evidence Plan Process
ETG	Expert Topic Group
EU	European Union
FFC	Flamborough and Filey Coast
GCSG	Guillemot Compensation Steering Group
GGOW	Greater Gabbard Offshore Wind Farm
GRCSG	Guillemot and Razorbill Compensation Steering Group
HRA	Habitats regulations Assessment
Km	Kilometre
NFOW	North Falls Offshore Wind Farm
OWF	Offshore wind farm
OWIC	Offshore Wind Industry Council
PEIR	Preliminary Environmental Impact Assessment Report
RAG	Red, Amber, Green
RIAA	Report to Inform Appropriate Assessment
RSPB	Royal Society for the Protection of Birds
RWE	Renewables UK Swindon Limited
SAC	Special Area of Conservation
SACO	Supplementary advice on the conservation objectives
SEP	Shoal Extension Project
SMP	Seabird Monitoring Programme
SNCB	Statutory Nature Conservation Body
SoS	Secretary of State
SPA	Special Protection Area
SSER	SSE Renewables Offshore Windfarm Holdings Limited
SSSI	Sites of special scientific interest
UK	United Kingdom
VEOWL	Five Estuaries Offshore Wind Farm Limited

Glossary of Terminology

European site	Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant marine sites.
Habitats Regulations	Refers to both the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017
The Applicant	North Falls Offshore Wind Farm Limited (NFOW)
The Project Or 'North Falls'	North Falls Offshore Wind Farm, including all onshore and offshore infrastructure.

1 Introduction

1.1 Background

1. The North Falls Offshore Wind Farm (hereafter 'North Falls' or 'the Project') is an extension to the existing Greater Gabbard Offshore Wind Farm (GGOW), located approximately 40km off the East Anglian coast in England. When operational, North Falls would have the potential to generate renewable power for approximately 400,000 UK homes from up to 57 wind turbines.

2. The Applicant, North Falls Offshore Wind Farm Ltd (NFOW), is a consortium between Scottish and Southern Energy Renewables (SSER) Ltd and RWE Renewables UK Ltd (RWE), both of which are highly experienced developers.

3. As part of the Development Consent Order (DCO) application, the Applicant must provide information to support the Habitats Regulations Assessment (HRA) to be completed by the Competent Authority, the Secretary of State for the Department of Energy Security and Net Zero (DESNZ).

1.2 Purpose of document

4. This Guillemot and Razorbill Compensation Document is produced in response to consultation with the Statutory Nature Conservation Body (SNCB) without prejudice to the Applicant's conclusion in the Report to Inform Appropriate Assessment (RIAA) Part 4 Offshore Ornithology (Document Reference: 7.1.4) that there is no adverse effect on integrity (AEoI) for the guillemot and razorbill features of the Flamborough and Filey Coast (FFC) Special Protection Area (SPA) from North Falls alone or in-combination with other plans and projects.

5. In the event that the Secretary of State (SoS) concludes an AEoI in the Appropriate Assessment for guillemot and/or razorbill, the Applicant has developed a compensatory measure that could be applied to provide compensation for the predicted effects on either or both species, summarised in Section 3 of this document and detailed in the RIAA Part 4 (Document Reference: 7.1.4).

6. This document demonstrates how the proposed compensatory measure can be delivered to ensure that the overall coherence of the National Site Network is protected, in accordance with Regulation 68 of the Conservation of Habitats and Species Regulations 2017 and Regulation 36 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 (both sets of regulations together referred to as the "Habitats Regulations") and provides evidence that an appropriate measure has been selected which will be ecologically effective.

7. A Compensation Implementation and Monitoring Plan (CIMP) (as required) will be produced by the Applicant and approved by the SoS post-consent, in accordance with the outline version provided with the DCO application (Annex 5A Guillemot and Razorbill Outline CIMP (Revision B) (Document Reference: 7.2.5.1)). The CIMP will set out the detailed delivery proposals for the agreed compensatory measure, in accordance with the Outline Guillemot and Razorbill CIMP, based on the information set out in this Guillemot and Razorbill Compensation Document.

8. Depending on the conclusions of the Appropriate Assessment, the CIMP would include guillemot and razorbill, guillemot alone or razorbill alone.

9. If required, the guillemot and/or razorbill compensation can be legally secured through the DCO.

1.3 The Guillemot and Razorbill Features of the Flamborough and Filey Coast SPA

1.3.1 Conservation Objectives

10. The conservation objectives of the FFC SPA are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- The extent and distribution of the habitats of the qualifying features;
- The structure and function of the habitats of the qualifying features;
- The supporting processes on which the habitats of the qualifying features rely;
- The populations of each of the qualifying features; and
- The distribution of qualifying features within the site.

1.3.2 Supplementary Advice on Conservation Objectives for Guillemot and Razorbill

11. There is no specified status on the Natural England website (Natural England, undated) regarding the condition of the qualifying features of the FCC SPA, although the Supplementary Advice on Conservation Objectives (SACOs) (Natural England, 2023) has targets to

- *Maintain the size of the guillemot breeding population at a level which is above 41,607 breeding pairs; and*
- *Maintain the size of the razorbill breeding population at a level which is above 10,570 breeding pairs.*

12. In addition, it is stated that *'there is evidence from survey or monitoring that shows the feature to be in a good condition and/or currently un-impacted by anthropogenic activities*'.

2 Development of Compensatory Measures – Methodology

2.1 General Approach

13. The approach taken by the Applicant to identify potential compensatory measures and for considering their suitability considers the policy and guidance described in the Compensatory Measures Overview (Document Reference: 7.2.1) and was as follows:

- Review of compensatory measures discussed in Furness et al. (2013);
- Consultation with relevant stakeholders including:

    - Natural England and RSPB to develop proposals through the Offshore Ornithology Expert Topic Group (ETG) as part of the Project's Evidence Plan Process (EPP);
    - Other OWF developers, directly and through RWE and SSER's involvement in the Offshore Wind Industry Council (OWIC) Derogation Subgroup; and
  - Ongoing review of other OWF applications for which compensatory measures have been developed, including those accepted as appropriate in the determination (i.e. Hornsea Project Four, Sheringham Shoal OWF Extension Project (SEP) and Dudgeon OWF Extension Project (DEP) for guillemot; there are no examples for razorbill as at the time of writing, no OWFS have been consented subject to compensation for this species).

14. Project-led, collaborative and strategic compensatory measures that have been considered are described in Section 4.

2.2 Consultation

15. The Applicant has regularly consulted with relevant stakeholders throughout the pre-application process as discussed in the Compensatory Measures Overview (Document Reference: 7.2.1). Feedback from the stakeholders has informed the development of the compensatory measure and is detailed in Annex 1A Compensation Consultation.

16. Consultation with relevant stakeholders will continue throughout the application and post consent phases of compensation development and delivery. Details of proposed future engagements the compensatory measure will be set out in the CIMP.

3 Quantification of Effect for Guillemot and Razorbill

17. This section provides a summary of the Project's impacts on the guillemot and razorbill at FFC SPA and outlines the context for the proposed without prejudice compensatory measure. The SoS will determine the level of effect based on the Appropriate Assessment conclusions for North Falls on the breeding adult birds associated with the FFC SPA, and whether North Falls contributes to the in-combination adverse effect on the integrity of guillemot or razorbill.

18. The RIAA Part 4 Offshore Ornithology (Document Reference: 7.1.4) presents an assessment of predicted mortality from displacement / barrier effect affecting guillemot and razorbill from FFC SPA.

19. Table 3.1 presents the predicted year-round North Falls mean, lower, and upper 95% CLs for guillemot and razorbill mortalities based on a range of displacement and mortality rates set out below:

  - Low rates (30%, 1%);
  - Applicant's preferred appropriately precautionary rates (50%, 1%); and
  - Hornsea Project Four consented rates (70%, 2%).

20. The Applicant recognises that in the case of consented projects, the SoS has determined that the displacement and mortality scenario for Hornsea Project Four be used in quantifying the number of guillemots required for compensation, yet they may accept alternative parameters in future cases. To quote the SEP and DEP HRA (DESNZ, 2024):

21. '*The Secretary of State considers that central values of displacement and mortality for the assessment of displacement impacts on guillemot of 70% and 2% are, at the current time and based on current evidence, suitably precautionary for an assessment to be made, but notes that this does not preclude her from accepting alternative parameters for future cases*.'

22. However, North Falls continues to present a without prejudice compensation case for guillemots and razorbills based on the mean values at 50% displacement and 1% mortality, as this is considered the most appropriate precautionary scenario based on the available evidence and expert judgement. The mean values are used as the upper 95% confidence limit is considered by the Applicant to be overly precautionary. For both Hornsea Project Four and SEP and DEP, it is understood that the consent decision was based on 70% displacement and 2% mortality. If similar displacement and mortality rates were applied for North Falls, the compensation would be scalable to fully compensate these effects.

Table 3.1 Predicted annual mortalities of guillemot and razorbill from North Falls based on varying displacement and mortality rates. 50% / 1% are the Applicants preferred rates which are considered appropriately precautionary, represented by bold text.

Scenario	Mortalities		
	30% displacement,1% mortality	50% displacement, 1% mortality	70% displacement, 2% mortality
Guillemot			
Mean	0.7	**1.2**	3.3
Lower 95% CL	0.1	0.2	0.5
Upper 95% CL	1.9	3.2	9.0
Razorbill			
Mean	0.3	**0.6**	1.6
Lower 95% CL	0.1	0.2	0.7
Upper 95% CL	0.8	1.3	3.6

4 Selection of Compensatory Measure

23. The process for identifying potential guillemot and razorbill compensatory measures considered the ecology and existing pressures on guillemot and razorbill to identify measures which would aim to reduce mortality from other causes, increase survival through other means and/or increase productivity to offset the displacement effects described in Section 3.

24. Potential compensatory measures for guillemot and razorbill were considered in an 'Initial Review of Compensatory Measures for Guillemot and Razorbill' which was shared with the Ornithology ETG as part of the EPP and is summarised below. This was intended as a discussion document.

25. Measures considered in the review were:

- Predator eradication from a breeding colony;
- Fishery bycatch prevention; and
- Artificial Nesting Sites (ANS).

26. Following consultation with the Ornithology ETG (11 April 2024) reduction of recreational disturbance at one or more small breeding colonies in the southwest of England was included. In addition, contribution to a strategic measure or fund (Section 8) is also included as an option to deliver compensation, if required.

27. A summary of the considered compensation measures and conclusions reached in consultation with Natural England and RSPB in included in Table 4.1, with the compensation options taken forward in bold.

Table 4.1 Screening of compensation measures for guillemot and razorbill (selected options in bold)

Measure	Conclusions
Reduction of recreational disturbance at a breeding colony	This measure was recommended by Natural England (2024) in their comments on the initial review of compensatory measures for guillemot and razorbill. It was suggested by Natural England that small colonies with historical declines be considered, particularly those where pressures have been identified as suppressing the breeding success of the population, and where remedial action can be taken to facilitate recovery of these colonies.
Predator management (mink, feral cat, rat) / exclusion (foxes, great skuas)	Natural England (2024) advised that this measure is potentially out of proportion to the scale of predicted impact of North Falls on razorbill and guillemot. They also commented that there are limited options for sites that could be delivered. This option is not considered further by the Applicant. However, should this become available as a strategic option (Section 8), the Applicant may give this further consideration.
Provision of additional nesting habitat – artificial structure	In their comments on the initial review of compensation measures for guillemot and razorbill (see Annex 1A), Natural England advised that provision of ANS for auks remains highly experimental with no clear evidence to inform the potential scale of delivery. This option is not considered further by the Applicant. However, should this become available as a strategic option, the Applicant may give this further consideration.
Fishery bycatch prevention	It is recognised that this compensation measure has been formally adopted for HP4 and SEP/DEP. This measure is not taken forward for North Falls as Natural England (2024) advised against pursuing this option, stating that some efforts to

Measure	Conclusions
	address bycatch by technological means may have exacerbated overall bycatch risk due to unintended consequences (see Annex 1A).
Contribution to a strategic fund	**In accordance with the SEP&DEP DCO, which enables compensation to be delivered through contribution to a Strategic Compensation Fund, this option is included for North Falls.**

5 Ecological Evidence

5.1 Reduction of Recreational Disturbance at a Breeding Colony

5.1.1 Overview

28. Following consultation (Annex 1A Compensation Consultation (Document Reference: 7.2.1.1)) on an initial review of compensatory measures for guillemot and razorbill, reduction of recreational disturbance at a small breeding colony is a measure recommended by Natural England. This involves implementing methods of reducing the impact of human disturbance e.g. wardens, fencing and signage. It was suggested by Natural England that small colonies in the southwest of England with historical declines be considered, particularly those where pressures have been identified as suppressing the breeding success of the population, and where remedial action can be taken to facilitate recovery of these colonies.

5.1.2 Initial search and screening

29. Upon the recommendation of Natural England (2024), the initial search for potential target colonies focused on those located in Devon and Cornwall. Breeding colony count data for these sites were obtained from the Seabird Monitoring Programme (SMP) Database (SMP, 2024) for both guillemot and razorbill.

30. Any sites with zero values for both species were discounted and a long list of sites (shown in Table 5.1 and Figure 1a-f) was produced from the remaining data.

31. For each colony, counts were included to identify population trends and size. Colonies with historically larger breeding populations were considered, as this would indicate there is potential nesting space for a larger population than was most recently recorded (see Table 5.1). Subsequently, interventions for these colonies could be more beneficial as there is space for them to increase back to their historical sizes, or potentially to increase beyond the maximum available count.

Table 5.1 Long List of Auk Colonies in Devon and Cornwall that Could be Considered for Small Colony Intervention Compensation. Rows hightlighted in the darker blue indicate those taken through to the shortlist for consideration based on population trend and size.

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Armed Knight	N/A	2007 – 0 2017 – 80 2023 – 402	Increasing	NO	2007 – 34 2017 – 23 2023 – 23	Stable, with potential to increase. Historic numbers older than 2000: 1987 – 2 1999 – 10	**YES**
Backways Cove	Tintagel Cliffs SSSI	N/A	N/A	N/A	2015 – 7	Only one count taken	NO
Bawden Rocks	N/A	2000 – 83 2007 – 5 2016 – 4 2017 – 10 2018 – 20	Historically higher than current, but current is slowly increasing	**YES**	2000 – 52 2007 – 12 2016 – 35 2017 – 40 2018 – 70	Increasing	NO
Beeny Sisters	N/A	N/A	N/A	N/A	2000 – 10 2018 – 0	Decreased to zero	NO
Berry Head 1	Berry Head to Sharkham Point SSSI	2000 – 1029 2001 – 953 2002 – 858 2003 – 649 2004 – 986 2005 – 1053 2007 – 884	Fluctuates but generally stable, has potential to increase by a few hundred birds.	**YES**	N/A	N/A	N/A

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
		2008 – 2392 (1196 apparently occupied nests (aon)) 2009 – 1129 2010 – 1378 2011 – 1464 2012 – 927 2013 – 704 2014 – 1029 2015 – 823 2016 – 930 2017 – 1145 2018 – 877 2019 – 1053 2020 – 712 2021 – 891 2022 – 739 2023 – 943					
Bounds Cliff	N/A	2017 – 20	Only one count taken	NO	2017 – 48	Only one count taken	NO
Buckator	N/A	N/A	N/A	N/A	2000 – 10 2018 – 55	Increasing	NO
Carnweather Point	N/A	N/A	N/A	N/A	2017 – 2	Only one count taken	NO

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Carters Rocks	N/A	2000 – 0 2007 – 20 2015 – 47 2017 – 8	Fluctuates, potential for improvement	**YES**	2000 – 0 2007 – 8 2017 – 0	Decreased to zero	NO
Carvannet – Portreath 1	Godrevy Head to St Agnes SSSI	2007 – 3 2017 – 0	Decreased to zero	NO	N/A	N/A	N/A
Carvannet – Portreath 2	N/A	2000 – 150 2007 – 31 2014 – 105 2016 – 240	Increasing	NO	2000 – 14 2007 – 21 2016 – 6	Decreasing, has potential to increase	**YES**
Carvannet – Portreath 3	Godrevy Head to St Agnes SSSI	2013 – 124 2014 – 108 2016 – 205	Increasing	NO	2000 – 5 2016 – 4	stable	NO
Carvannet – Portreath 5	N/A	2000 – 39 2013 – 68 2014 – 78 2016 – 76	Stable	NO	N/A	N/A	N/A
Cow and Calf	West Exmoor Coast and Woods SSSI	2001 – 224 2008 – 540 2016 – 1308 2018 – 1165 2023 – 760	Decreasing	**YES**	2001 – 18 2008 – 168 2016 – 181 2018 – 110 2023 – 103	Decreasing but has potential to increase	**YES**
Dunderhole Point	N/A	N/A	N/A	N/A	2009 – 3 2015 – 9	Increasing – historically in 1999 there were zero	NO

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Elwill Bay	West Exmoor Coast and Woods SSSI	2023 – 160	Only one count taken	NO	2001 – 12 2008 – 7 2016 – 33 2023 – 25	Decreasing slightly, potential for small increase	**YES**
Glebe	Tintagel Cliffs SSSI	N/A	N/A	N/A	2009 – 8 2015 – 14	Increasing, historically in 1999 there were zero	NO
Godrevy	Godrevy Head to St Agnes SSSI	2000 – 20 2013 – 31 2014 – 13 2016 – 40	Fluctuates	NO	2000 – 12 2016 – 9	Decreasing with potential for small increase	**YES**
Grower Rock (Plymouth – Falmouth)	Tintagel Cliffs SSSI	2009 – 81 2015 – 41	Decreasing, potential for increase	**YES**	2009 – 4 2015 – 151	Increasing	NO
Gull Rock	N/A	2000 – 148 2007 – 143 2016 – 309 2017 – 300 2023 – 298	Decreasing	**YES**	2000 – 1 2007 – 12 2016 – 31 2017 – 18 2023 – 17	Decreasing, potential for increase	**YES**
Gull Rock – North Cornwall	N/A	2015 – 2	Only one count taken	NO	2009 – 48 2015 – 40	Decreasing slightly	NO
Gulland Rock	N/A	2007 – 45 2015 – 1019 2016 – 1176 2017 – 580	Decreased most recently, has potential to increase by a few hundred birds	**YES**	2007 – 15 2015 – 82 2016 – 52	Decreasing with potential to increase again	**YES**

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Highveer Point	West Exmoor Coast and Woods SSSI	2016 – 53 2023 – 21	Decreasing, historically higher so potential for increasing pop	**YES**	2008 – 7 2016 – 178 2023 – 23	Decreasing, potential for big boost to historic population	**YES**
Ligger Point – Holywell	N/A	N/A	N/A	N/A	2000 – 6 2017 – 11	Increasing slightly	NO
Long and Short Island	Tintagel Cliffs SSSI	2009 – 637 2015 – 895	increasing	NO	2000 – 122 2015 – 264	Increasing	NO
Long Island Coast	N/A	N/A	N/A	N/A	2009 – 27 2015 – 10	Decreasing, potential for increase	**YES**
Lundy	N/A	2000 – 2348 2004 – 2321 2008 – 3302 2013 – 4114 2017 – 6198 2021 – 9880 2023 – 9912	increasing	NO	2000 – 950 2004 – 841 2008 – 1045 2013 – 1324 2017 – 1735 2021 – 3533 2023 – 3785	Increasing	NO
Lye Rock	N/A	2009 – 124 2015 – 0	Decreased to zero	NO	2009 – 14 2015 – 0	Decreased to zero	NO
Lynton 1 and 2	West Exmoor Coast and Woods SSSI	2008 – 160 2016 – 361 2023 – 240	Decreasing, potential to increase again	**YES**	2008 – 117 2016 – 58 2023 – 34	Decreasing, potential to increase	**YES**

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Meachard	N/A	2015 – 8	Only one count taken	NO	2015 – 97	Only one count taken	NO
Morvah 1	N/A	2017 – 3 (SEA)	Only one count taken – different count type used	NO	2017 – 1	Only one count taken	NO
Morvah 3	N/A	2017 – 10	Only one count taken	NO	2017 – 7	Historic count in 1999 was 6 so pop has remained small but stable	NO
Mullion to Predannack Cliff NNR	Mullion Cliff to Predannack Cliff SSSI Mullion to Predannack Cliff NNR	2007 – 1 2008 – 5 2016 – 10	Increasing but very low numbers Historic number older than 2000: 1985 – 14 1999 – 8	**YES**	2007 – 0 2008 – 1 2015 – 3	Very small population increasing slowly. Historic counts: 1985 – 10 1999 – 2	**YES**
Newdowns Head to Seal Hole (Limit of SSSI)	Godrevy Head to St Agnes SSSI	N/A	N/A	N/A	2023 – 3	Only one count taken	NO
Newland Island	N/A	N/A	N/A	N/A	2007 – 8 2017 – 0	Decreased to zero	NO
North Cliffs 1	Godrevy Head to St Agnes SSSI	2000 – 151 2013 – 139 2014 – 154 2016 – 150 2020 – 102	Slight decrease, potential for maybe 50 more birds	**YES**	2000 – 46 2016 – 0 2020 – 1	Decreased possibly started to go up again, could have potential	**YES**

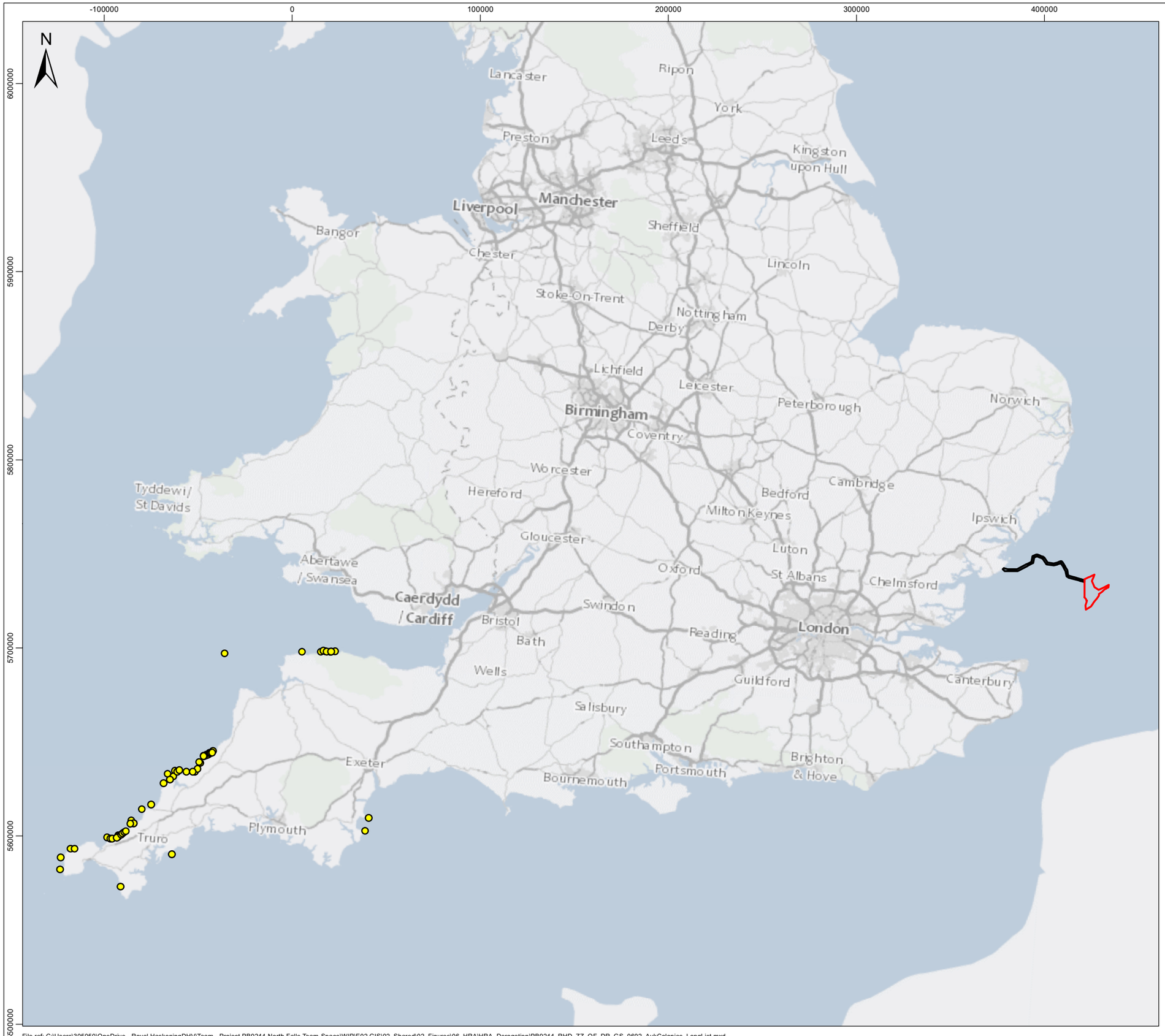
Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
North Cliffs 3	Godrevy Head to St Agnes SSSI	2016 – 172	Only one count taken	NO	2000 – 5 2016 – 11	Increasing	NO
North Cliffs 5	Godrevy Head to St Agnes SSSI Godrevy Head to St Agnes SSSI	2016 – 3	Only one count taken	NO	2016 – 4	Only one count taken	NO
North Cornwall 1	N/A	N/A	N/A	N/A	2017 – 6	Only one count taken	NO
North Cornwall 2	N/A	2000 – 13 2015 – 134 2016 – 108 2017 – 84 2017 – 38	Slowly decreasing from peak. Two counts taken in 2017 a couple weeks apart	**YES**	2017 – 49 2017 – 34	Two counts taken a few weeks apart	NO
North Cornwall 3	N/A	2015 – 88 2016 – 87 2017 – 54 2017 – 40 2018 – 64 2019 – 59 2020 – 81 2021 – 77 2022 – 112 2023 – 102	Overall increase. Two counts taken in 2017 a couple weeks apart	NO	2000 – 5 2015 – 67 2017 – 59 2018 – 45 2019 – 64 2020 – 79 2021 – 86 2022 – 86 2023 – 58	Started to decrease after a period of increase. Potential for increase to peak count again.	**YES**

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Ore Stone	N/A	2001 – 5 2007 – 168 2017 – 339 2021 – 300 2021 – 25 2022 – 90	Two counts taken in the breeding season of 2021. 2022 count taken in April which is early compared to the other years counts so could account for the lower number?	**YES**	2001 – 0 2007 – 4 2017 – 25	Increasing	NO
Penally	N/A	2000 – 75 2018 – 0	Decreased to zero	NO	2000 – 16 2018 – 10	Decreasing	NO
Pentargon	N/A	2018 – 9	Only one count taken	NO	2000 – 8 2018 – 31	Increasing	NO
Pentargon Cove	N/A	2018 – 67	Only one count taken	NO	2018 – 11	Only one count taken	NO
Portreath – Porthtowan 1	Godrevy Head to St Agnes SSSI	N/A	N/A	N/A	2016 – 6	Only one count taken	NO
Portreath – Porthtowan 2	Godrevy Head to St Agnes SSSI	2000 – 95 2013 – 17 2014 – 15 2016 – 49	Increasing	NO	2000 – 52 2016 – 65	Increasing	NO
Portreath – Porthtowan 3	Godrevy Head to St Agnes SSSI	2000 – 4 2007 – 9 2016 – 0	Decreased to zero	NO	2000 – 41 2016 – 0	Decreased to zero	NO

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Portreath – Porthtowan 4	Godrevy Head to St Agnes SSSI	2000 – 27 2016 – 0	Decreased to zero	NO	2000 – 2 2016 – 8	Increasing	NO
Reedy Cliff	N/A	N/A	N/A	N/A	2017 – 10	Only one count taken	NO
Rillage Point to Ramsay Beach	N/A	N/A	N/A	N/A	2008 – 41 2018 – 10	Decreasing maybe potential to increase	**YES**
Round Hill	N/A	N/A	N/A	N/A	2007 – 8 2018 – 0	Decreased to zero	NO
Seal Hole to Trevaunance Cove	N/A	2000 – 63 2015 – 122 2017 – 122 2018 – 89 2023 – 24	Decreasing, potential to improve?	**YES**	2000 – 7 2017 – 70 2018 – 38 2023 – 7	Decreased, maybe potential to increase again	**YES**
St. Agnes Head to Newdowns Head	N/A	N/A	N/A	N/A	2000 – 5 2016 – 5 2017 – 43 2018 – 60 2023 – 1	Decreased, potential to increase?	**YES**
The Brisons	N/A	2007 – 21 2016 – 350 2023 – 348	Stable	NO	2007 – 33 2016 – 500 2023 – 68	Decreasing, potential to increase	**YES**

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
The Mouls	N/A	2007 – 120 2015 – 732 2015 – 292 2016 – 678	Increasing	NO	2007 – 34 2015 – 30 2015 – 68 2016 – 16	Decreasing Two counts taken in 2015 Potential to increase	**YES**
The Sisters	N/A	2009 – 173 2015 – 870	Increasing	NO	2009 – 26 2015 – 58	Increasing	NO
Trerubies Cove	N/A	N/A	N/A	N/A	2017 – 13	Only one count taken	NO
Towan Head	N/A	2024 – 4	Count taken in February may not be accurate	NO	N/A	N/A	N/A
Tresungers Point	N/A	2017 – 38	Historical count: 1999 – 67 Potential to increase back up to this	**YES**	2017 – 70	Historic count 1999 – 8 Suggests increasing	NO
Treyarnon – Merope	N/A	2000 – 31 2000 – 5 2016 – 31 2018 – 25 2018 – 19 2020 – 22	Two counts taken in both 2000 and 2018. No clear trend, potential to increase?	**YES**	2000 – 5 2000 – 18 2000 – 12 2018 – 6 2018 – 6 2020 – 6	Stable population but low in comparison to 2000. 2000's counts all taken on same day, so were the 2018 counts.	**YES**
Willapark	Tintagel Cliffs SSSI	2015 – 174 (87 AON)	Only one count taken	NO	2015 – 100 (AON 50)	Only one count taken	NO

Site	Designation	SMP Data Guillemot Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Guillemot	SMP Data Razorbill Population (IND) 2000-present	Colony trend (breeding pop)	Potentially for shortlist Razorbill
Woody Bay 1 and 2	West Exmoor Coast and Woods SSSI	2001 – 204 2008 – 126 2016 – 130 2023 – 90	Decreasing Potential to help increase	**YES**	2001 – 142 2008 – 124 2016 – 57 2023 – 66	Starting to increase again, potential to help this increase further	**YES**
Wringapeak	West Exmoor Coast and Woods SSSI	2001 – 434 2008 – 265 2016 – 854 2018 – 912 2023 – 530	Increased up to 2018 and then decreased.	**YES**	2001 – 15 2008 – 208 2016 – 216 2018 – 115 2023 – 61	Decreasing	**YES**
Wringcliff Bay 2 and 3	West Exmoor Coast and Woods SSSI	2023 – 2	Only one count taken	NO	2016 – 3 2023 – 28	Increasing	NO



Legend

- North Falls Array Area
- Offshore Cable Corridor
- Auk (Guillemot and Razorbill) Colony Site

0 12.5 25 50 nm

0 25 50 100 km

Drawing Title

Long List of Auk Colonies in Devon and Cornwall Considered in Screening

Rev	Date	Remarks	Drwn	Chkd
01	20/06/2024	First issue	FC	DM

Drawing Number	Figure Number
PB9244-RHD-ZZ-OF-DR-GS-0602	1a

Scale	Plot Size	Datum	Projection
1:2,000,000	A3	WGS84	UTM31N

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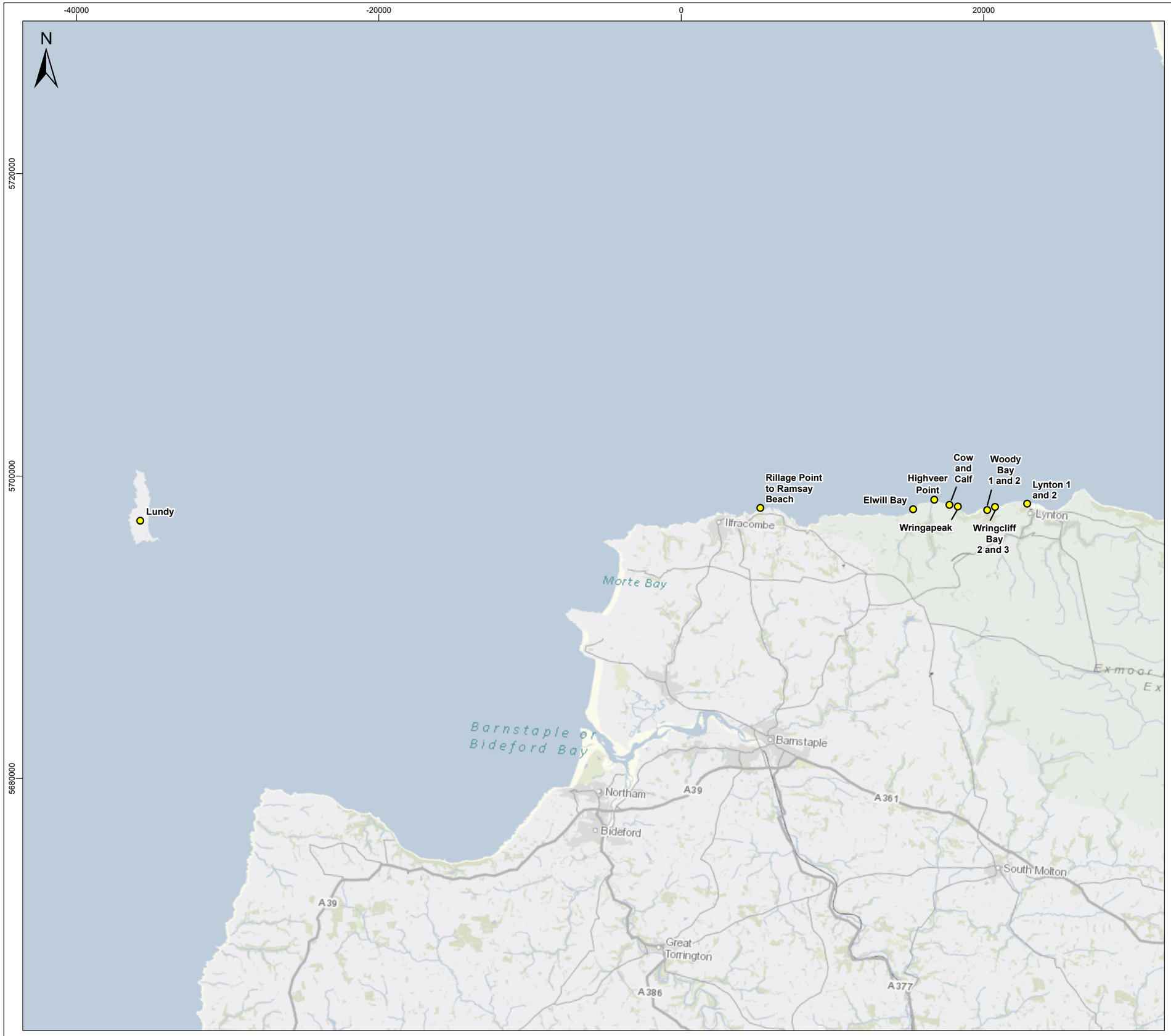
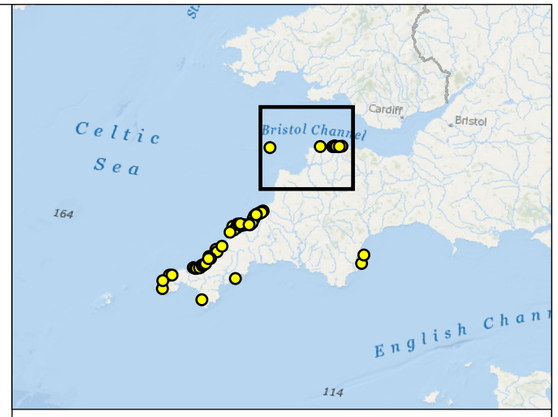
NORTH FALLS
Offshore Wind Farm

File ref: C:\Users\305050\OneDrive - Royal HaskoningDHV\Team - Project-PB9244-North-Falls-Team-Space\WIP\E02 GIS\02_Shared\02_Figures\06_HRA\HRA_Derogation\PB9244_RHD_ZZ_OF_DR_GS_0602_AukColonies_LongList.mxd





Legend

- Auk (Guillemot and Razorbill) Colony Site

0 1 3 5 nm

0 3 5 10 km

Drawing Title

Long List of Auk Colonies in Devon and Cornwall Considered in Screening

Rev	Date	Remarks	Drwn	Chkd
01	20/06/2024	First issue	FC	DM

Drawing Number	Figure Number
PB9244-RHD-ZZ-OF-DR-GS-0602	1b

Scale	Plot Size	Datum	Projection
1:250,000	A3	WGS84	UTM31N

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Offshore Wind Farm

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-60000

-40000

5640000

5620000

N

Bude Bay

Beeny Sisters

Buckator

Meachard

Pentargon

Pentargon Cove

Penally

Grower Rock

Long and Short Island

The Sisters

Lye Rock

Long Island Coast

Willpark

Glebe

Dunderhole Point

Gull Rock - North Cornwall

Backways Cove

Trerubies Cove

Port Isaac Bay

Newland Island

The Mouls

Round Hill

Reedy Cliff

Tresungers Point

Bounds Cliff

Gulland Rock

North Cornwall 1

Padstow Bay

North Cornwall 2

North Cornwall 3

Treyarnon - Merope

Padstow

Camelford

Wadebridge

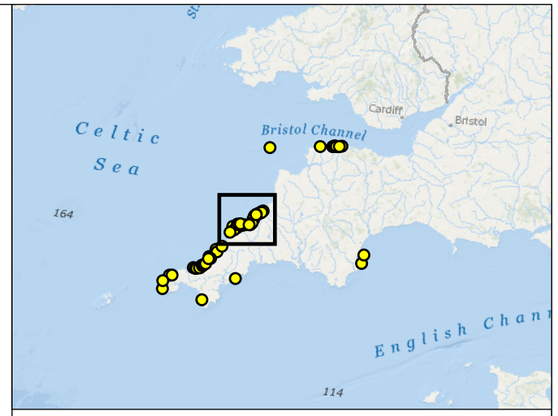
Bodmin Moor

Bodmin

Newquay Airport/Newquay Cornwall Airport

A39

A389



Legend

- Auk (Guillemot and Razorbill) Colony Site

0 1 1 2 nm

0 1 3 5 km

Drawing Title

Long List of Auk Colonies in Devon and Cornwall Considered in Screening

Rev	Date	Remarks	Drwn	Chkd
01	20/06/2024	First issue	FC	DM

Drawing Number	Figure Number
PB9244-RHD-ZZ-OF-DR-GS-0602	1c

Scale	Plot Size	Datum	Projection
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Offshore Wind Farm

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-100000 -80000

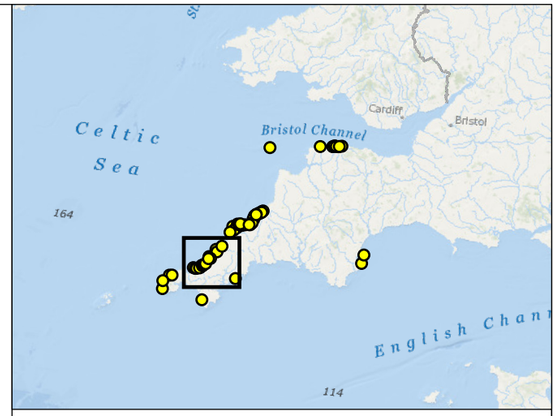
5620000

5600000

N

Towan Head
Carters Rocks
Ligger Point - Holywell
Bawden Rocks
Newdowns Head to Seal Hole (Limit of SSSI)
St Agnes Head to Newdowns Head
Seal Hole to Trevaunance Cove
Portreath - Porthtowan 4
Portreath - Porthtowan 3
Carvannet - Portreath 5
Portreath - Porthtowan 2
Portreath - Porthtowan 1
Carvannet - Portreath 2
Carvannet - Portreath 3
Carvannet - Portreath 1
Godrevy
North Cliffs 3
North Cliffs 5
North Cliffs 1
Gull Rock (Falmouth)

Newquay Airport/Newquay Cornwall Airport
Newquay
St Columb Major
Truro
Redruth
Camborne
St Ives
St Ives Bay
Falmouth
Carrick Roads
Gerrans Bay
Falmouth Bay
Roseland Peninsula
Vale of Mawgan
Vale of Lanherne



Legend

- Auk (Guillemot and Razorbill) Colony Site

0 1 1 2 nm

0 1 3 5 km

Drawing Title

Long List of Auk Colonies in Devon and Cornwall Considered in Screening

Rev	Date	Remarks	Drwn	Chkd
01	20/06/2024	First issue	FC	DM

Drawing Number	Figure Number
PB9244-RHD-ZZ-OF-DR-GS-0602	1d

Scale	Plot Size	Datum	Projection
1:150,000	A3	WGS84	UTM31N

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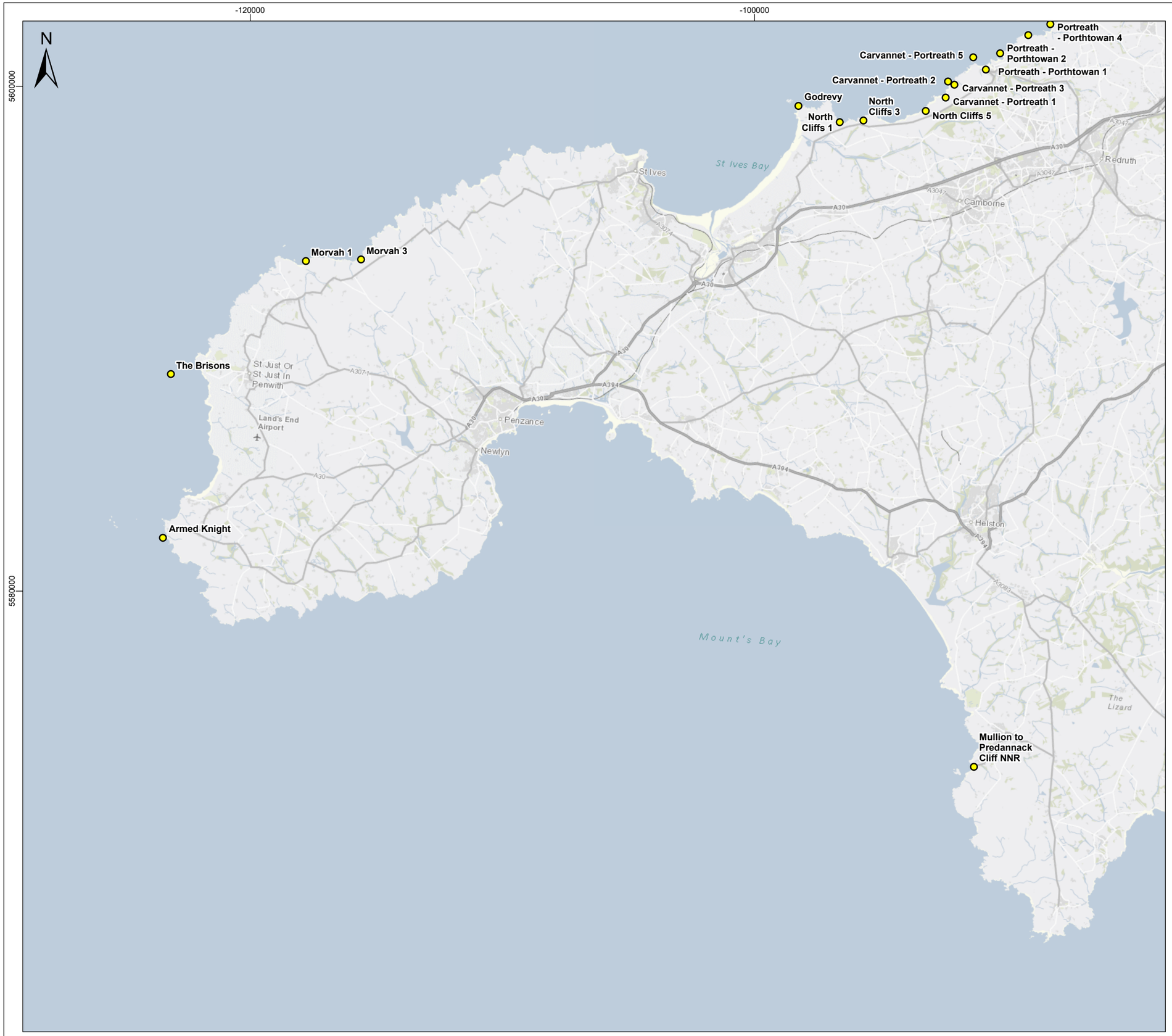

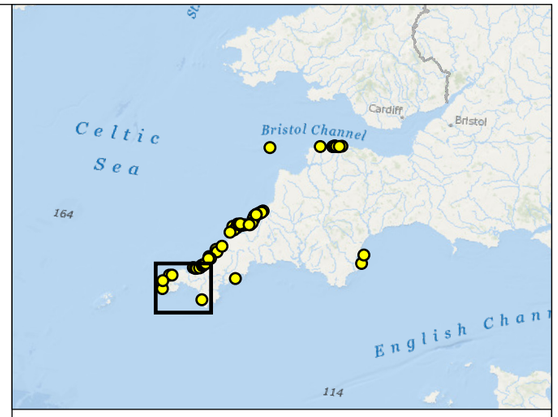

Legend

- Auk (Guillemot and Razorbill) Colony Site

0 1 1 2 nm

0 1 3 5 km

Drawing Title

Long List of Auk Colonies in Devon and Cornwall Considered in Screening

Rev	Date	Remarks	Drwn	Chkd
01	20/06/2024	First issue	FC	DM

Drawing Number	Figure Number
PB9244-RHD-ZZ-OF-DR-GS-0602	1e

Scale	Plot Size	Datum	Projection
1:150,000	A3	WGS84	UTM31N

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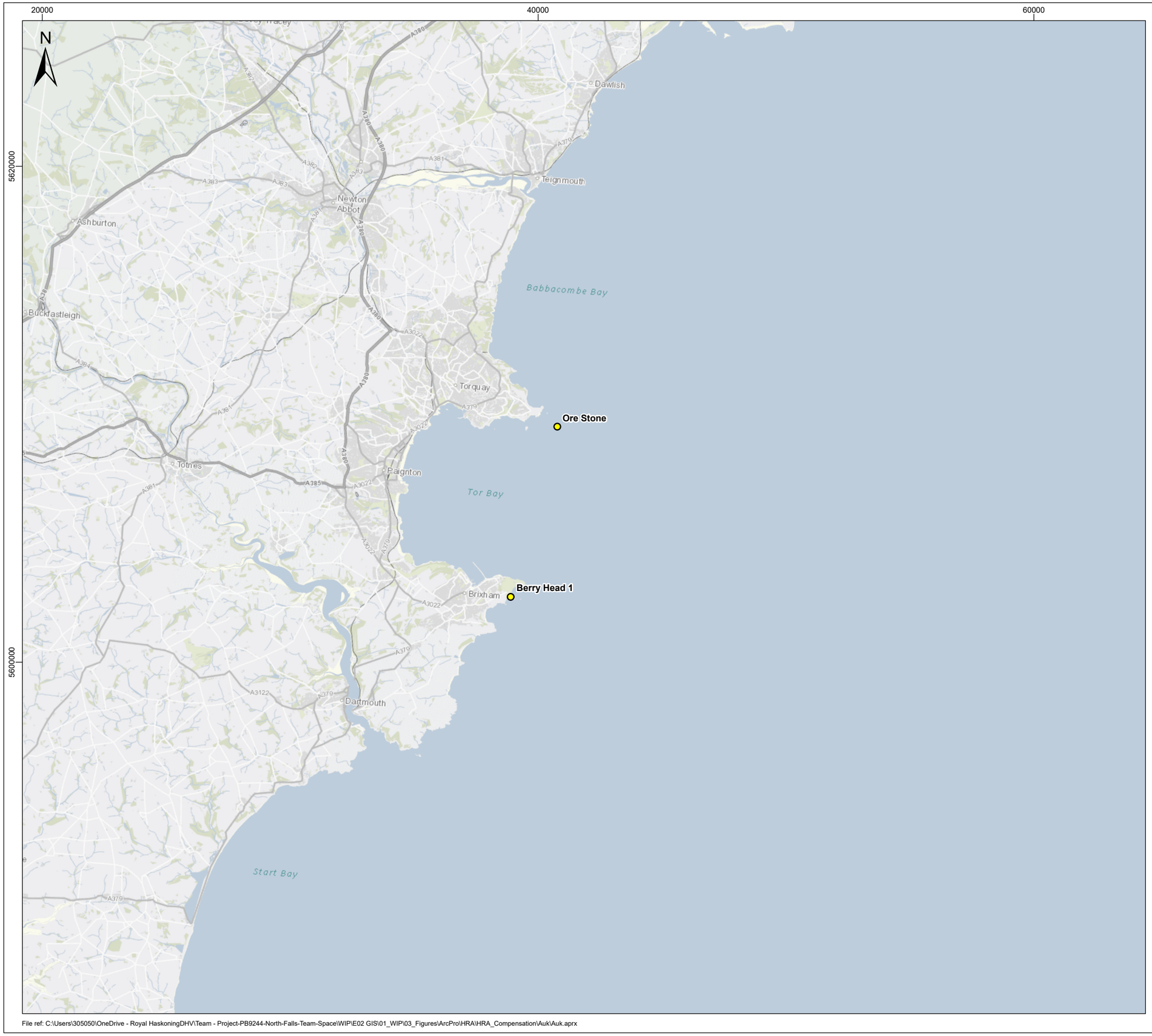

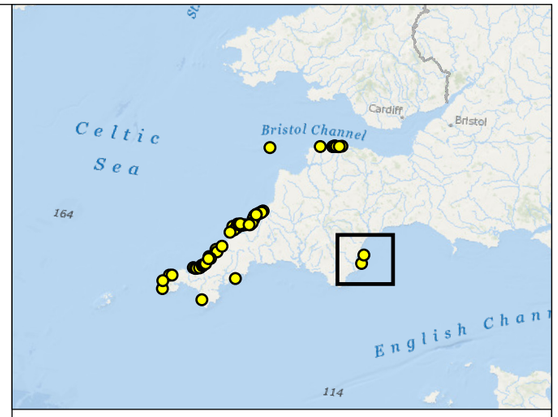

Legend

- Auk (Guillemot and Razorbill) Colony Site

0 1 1 2 nm

0 1 3 5 km

Drawing Title

Long List of Auk Colonies in Devon and Cornwall Considered in Screening

Rev	Date	Remarks	Drwn	Chkd
01	20/06/2024	First issue	FC	DM

Drawing Number	Figure Number
PB9244-RHD-ZZ-OF-DR-GS-0602	1f

Scale	Plot Size	Datum	Projection
1:150,000	A3	WGS84	UTM31N

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5.1.3 Colony Short-listing Process

32. Once the initial screening was complete, the likelihood of human disturbance was also considered, as this is understood to be a key pressure which may be limiting guillemot and razorbill numbers and/or a causal factor in declines, observed at these colonies. Level of disturbance was determined based on the criteria detailed in Table 5.2 below. This was based on the outcomes of desk-based research on factors such as proximity to coastal paths, nearest settlement, and levels of recreational activity in the area, conducted for each colony (Table 5.4). Sites with an overall high disturbance score (as detailed below) were carried forward to the final short-list.

33. As sites did not always score the same level for each of the disturbance criteria, the following system was applied to determine the overall level of disturbance. By applying a score of 1-3 for low-high disturbance levels for each criterion, an average overall score could be calculated. Overall scores in many cases are decimals not integers and so they were rounded up or down as appropriate (rounded up if above x.5 or rounded down if below x.5) to fit into one of the three categories. For example, where two criteria were rated as high disturbance and one as medium disturbance, the overall level of disturbance would be determined as being high ((3+3+2)/3=2.67, rounded up is 3 = high). The same principle applies if two criteria were low disturbance and one medium, then the overall rating would be low ((1+1+2)/3=1.33, rounded down is 1 = low). For sites such as Gull Rock, where there were two low criteria and one high, the overall rating was medium disturbance ((1+1+3)/3=1.67, rounded up is 2 = medium). In cases where each criteria had a different disturbance level (i.e. low, medium and high), the overall rating would be medium.

34. Areas of search used to identify the levels of human disturbance included searching on eBird (2024) for birdwatching hotspots close to the colonies in question. Proximity to coastal paths was linked to this as birdwatchers, along with walkers, would be the most frequent users of these paths. Strava (2024) was a helpful tool in determining the intensity of foot traffic along the coast. Due to the natural draw of people, either local or tourists to settlements, these were used as points of search for recreational businesses from which people may partake in coastal activities. This included kayaking, paddleboarding, coasteering, boating, climbing etc. Intensity of water sport activities around the colonies were determined by looking at heat maps on Strava (2024). The UK Climbing (2024) website was also used to determine whether there were any known and popular climbing routes close to the colonies that may result in disturbance.

Table 5.2 Criteria for levels of disturbance to seabird colonies

Criteria	Disturbance Score		
	Low (1)	Medium (2)	High (3)
Number of different sources of disturbance (e.g. walkers, climbers, watercraft etc.)	1-2	3	4-5
Distance to nearest settlement	>5km	1-5km	<1km

Criteria	Disturbance Score		
	Low (1)	Medium (2)	High (3)
Potential proximity of recreational activity	>100m	50-100m	<50m

35. Each site has been given a Red, Amber, Green (RAG) classification (see Table 5.4) and only Green sites have been carried forward to the shortlist, at this stage. The criteria defining these classifications are detailed in Table 5.3.

Table 5.3 Definitions of site categories for shortlisting

Shortlisting category	Definition
Green (G)	Both guillemot and razorbill populations decreasing and have a medium/high disturbance level. Good potential for delivering compensation.
Amber (A)	One species decreasing or stable (with higher historical count) and medium/high disturbance. OR Both species decreasing and low disturbance. OR Both species increasing but with higher historical counts and medium/high disturbance.
Red (R)	One species decreasing and low disturbance. OR Both species stable/increasing and low disturbance.

Table 5.4 Details of anthropogenic pressures on Guillemot and Razorbill colonies that meet the population trend criteria.

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
Armed Knight	N/A	Offshore Islet (~150m)	Lands End Theme Park and adjacent southwest coastal path (0.30km)	Walkers/Tourists Birdwatchers; eBird hotspot at Land's end, although colony offshore Watercraft (local blogs describing kayak routes through; but a difficult area to paddle so may not be frequent numbers); small number of kayak routes on Strava Coasteering advertised around Lands end Aircraft (Lands end airport for Isles of Scilly ~5.5km; flight paths sometimes pass directly overhead)	Number of disturbance sources	3	High	A
					Distance to nearest settlement	3		
					Proximity to recreational activity	2		
Bawden Rocks	N/A	Offshore Islets (1.53km)	St Agnes, Cornwall (3.12km)	Potentially kayakers but not generic tourists, local kayak hire stick to the coastline, islets are probably too far offshore for generic kayakers; no evidence on Strava.	Number of disturbance sources	1	Low	R
					Distance to nearest settlement	2		
					Proximity to recreational activity	1		
Berry Head 1	Berry Head to Sharkham Point SSSI	Mainland Cliff	Directly below an NNR and recreational area with café, including clifftop coastal paths; Landscove holiday park (0.35km)	Walkers/Tourists Birdwatchers; eBird hotspot at Berry Head Watercraft (local companies offering paddle tours past Berry Head Guillemot colony	Number of disturbance sources	3	High	A
					Distance to nearest settlement	3		

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
				Climbers (marked as a climbing site but with seasonal restriction for breeding birds) Aircraft (South Hams Flying club airstrip ~15km)	Proximity to recreational activity	2		
Carters Rocks	N/A	Offshore Islet (~210m)	Holywell and Holywell beach (~0.87km) attracts summer-time tourism; Coastal path passes ~0.5km; Perranporth to south ~5km; Newquay to NE ~5km	Watercraft (Holywell popular tourism spot for surfers; paddlesports Aircraft; Newquay airport ~13km to northeast; Perranporth airfield 3.36km to east Climbers – climbing routes on the rocks list on UK Climbing	Number of disturbance sources	2	High	G
					Distance to nearest settlement	3		
					Proximity to recreational activity	3		
Carvannet – Portreath 2	N/A	Offshore Islet (~180m)	Within 250-300m of Southwest coastal path; Nearest settlement 1.74km, Portreath a popular summertime destination, but small	Walkers on mainland will pass close by to islets Watercraft, some kayaking tours mention Portreath area, such as nearby “Ralph’s Cupboard”	Number of disturbance sources	1	Low	R
					Distance to nearest settlement	2		
					Proximity to recreational activity	1		
Cow and Calf	West Exmoor Coast and Woods SSSI	Mainland Cliffs/Rocky shore	Nearest site of ‘activity’ is Heddon National Trust, ~2km away in a valley, no direct connection; nearest settlement that will have high activity levels Lynton/Lynmouth, east ~5km	Walkers will pass along the coastal path above, <100m the area directly above the colony is lightly wooded Heddons mouth mentioned as part of a kayaking day trip on page of recommended paddles, but very remote area	Number of disturbance sources	1	Medium	G
					Distance to nearest settlement	2		

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
					Proximity to recreational activity	2		
Elwill Bay	West Exmoor Coast and Woods SSSI	Mainland Cliffs/Rocky shore	Nearest site of 'activity' is Heddon National Trust, ~2km away in a valley, no direct connection; nearest settlement that will have high activity levels Lynton, east~8km; Combe Martin to southwest ~6km	Walkers will pass along clifftop paths, but very inaccessible cliffs Heddons mouth mentioned as part of a kayaking day trip from Combe Martin on page of recommended paddles, but very remote area	Number of disturbance sources	1	Low	R
					Distance to nearest settlement	2		
					Proximity to recreational activity	1		
Godrevy	Godrevy Head to St Agnes SSSI	Mainland cliffs	The Godrevy colony is located on National Trust land, attracting visitors to the clifftops, and along the coastal path; car park <500m; Godrevy beach and St Ives Bay is a very popular area for surfing; St Ives is an extremely busy seaside resort ~6.72km to the west across the bay	Walkers, there will be visitors on the clifftops and along the coastal path, there is a viewing area along the cliffs for the Godrevy seal colony Birdwatchers; eBird hotspot at Godrevy point Watercraft, Godrevy being a very popular surf spot, there will be plenty of water users on surf and stand-up paddle boards; there are routes on Strava of water sports out and around the point and Godrevy Island; a number of Kayak blogs mention Godrevy headland and Island as good places to paddle Rock climbing, there is a large number of climbing routes listed for Godrevy Headland	Number of disturbance sources	3	High	A
					Distance to nearest settlement	3		
					Proximity to recreational activity	3		
Grower Rock	Tintagel Cliffs SSSI	Offshore rock/stack (~50m)	Located between Boscastle (1.5km) and Tintagel (4km), north Cornwall. This is a popular stretch of the	Walkers; tourists along the coastal path will pass through here hiking/walking between Boscastle and Tintagel. There are a number	Number of disturbance sources	1	Medium	A

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
			coastline with tourists, with both towns being tourist destinations. Grower rock is marked online as a landmark, and is only ~125m from the southwest coastal path.	of landmarks along this stretch of coast attracting people to the clifftops Watercrafts; Strava shows frequently used watersport routes particularly on the south east side of the rock	Distance to nearest settlement	2		
					Proximity to recreational activity	3		
Gull Rock (Plymouth – Falmouth)	N/A	Offshore Islet (~600m)	Gull rock is located off of the Roseland Peninsula, near Falmouth, Cornwall. It is a little more of an isolated area but the southwest coastal path here is popular; with multiple beaches nearby likely sources of seasonal anthropogenic activity; Falmouth is ~12.5km to the west.	Watercraft; the area has a lot of tourist activity in the summer, with multiple sources online showing kayaking trips out to Gull rock; Falmouth is a very popular boating hotspot, with sail and motor boats passing out of the Carrick roads and going up and down the coast and coming into small coves, Wildlife trips also run out to Gull rock Climbers; there are routes listed on UK Climbing for Gull rock and also Nare head directly adjacent	Number of disturbance sources	1	Medium	G
					Distance to nearest settlement	1		
					Proximity to recreational activity	3		
Gulland Rock	N/A	Offshore Islet (~2.25km)	Gulland rock is located out of Padstow Bay and Padstow Town is ~5km distant (overland), an extremely popular holiday resort, with high densities of anthropogenic activity in the summer, as well as a local fishing port	Watercraft; the islet is too far offshore to be disturbed by anyone on foot, but is likely approached by watercraft often (Google Maps satellite imagery shows three small watercraft only ~50m from the Rock, perhaps Padstow sealife safaris	Number of disturbance sources	1	Medium	G
					Distance to nearest settlement	2		
					Proximity to recreational activity	2		
Highveer Point	West Exmoor Coast and Woods SSSI	Mainland cliffs	Nearest site of 'activity' is Heddon National Trust, ~2km away in a valley, no direct connection; nearest		Number of disturbance sources	1	Medium	G

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
			settlement that will have high activity levels Lynton/Lynmouth, east ~5km	Walkers will pass along clifftop paths, but very inaccessible cliffs, the point quite isolated from the paths	Distance to nearest settlement	2		
				Heddons mouth mentioned as part of a kayaking day trip from Combe Martin on page of recommended paddles	Proximity to recreational activity	2		
Long Island Coast	N/A	Mainland Cliffs and Islet (~40m from mainland)	Boscastle 2.25km to east; caravan/camping park 800m to south; Tintagel castle ~2.9km to the southwest; Popular tourist destination in the summer	Walkers pass along coastal path on clifftops <140m away; multiple historical landmarks in area make it a likely busy stretch of coast	Number of disturbance sources	3	High	A
				Birdwatchers; minor eBird hotspot at location	Distance to nearest settlement	3		
				Watercraft; activity heatmap on Strava shows a lot of routes out of Boscastle around Long Island and the surrounding cliffs	Proximity to recreational activity	3		
				Climbers; climbing routes listed on multiple points along this stretch of coast				
Lynton 1 and 2	West Exmoor Coast and Woods SSSI	Mainland cliffs	~670m from Lynton/Lynmouth, popular tourist destinations on the Exmoor coast; Beach access here at low tide along base of cliffs	Walkers likely access the beaches (Strava shows activity) at low tide and can access bottom of cliffs; coastal path above ~75m distant	Number of disturbance sources	3	High	G
				Birdwatchers; eBird hotspot on Lynmouth beach, another on clifftops above (in trees)	Distance to nearest settlement	3		
				Climbers; multiple routes flagged on UK Climbing along these cliffs	Proximity to recreational activity	3		
				Watercraft; surfer activity in Lynmouth Bay; boat trip company in Lynmouth; kayaking routes from Combe Martin to Lynmouth commonly mentioned online				

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
Mullion to Predannack Cliff NNR	Mullion Cliff to Predannack Cliff SSSI Mullion to Predannack Cliff NNR	Mainland Cliffs (possibly Island too?)	Centre of stretch of cliffs ~ 775m from Mullion Cove; small tourist destination on the Lizard, Hotel and B&Bs in Mullion Cove; with more in Mullion town not much further north; Multiple campsites in surrounding vicinity	Walkers; coastal path passes within 150m of cliff edges, with the Lizard being a popular hiking destination in the summer Birdwatchers; minor eBird hotspot at Mullion Cove Watercraft; a lot of water sports activity out of Mullion cove; with multiple online sources toting it as a kayaking destination Aircraft; active airfield of RNAS Culdrose ~8.35km to the north; military jets and other aircraft; Predannack airfield ~2km to the southeast, also a Naval operated airfield Climbers; some climbing routes on the far end of the cliff line (south)	Number of disturbance sources	3	High	A
					Distance to nearest settlement	3		
					Proximity to recreational activity	3		
North Cliffs 1	Godrevy Head to St Agnes SSSI	Mainland cliffs	The Godrevy colony is located on National Trust land, attracting visitors to the clifftops, and along the coastal path; Godrevy beach and St Ives Bay is a very popular area for surfing; St Ives is an extremely busy seaside resort ~6.72km to the west across the bay	Walkers, there will be visitors on the clifftops and along the coastal path, there is a viewing area along the cliffs for the Godrevy seal colony Birdwatchers; eBird hotspot at Godrevy point Watercraft, Godrevy being a very popular surf spot, there will be plenty of water users on surf and stand-up paddle boards; there are routes on Strava of water sports out and around the point and Godrevy Island; a number of kayak blogs mention Godrevy headland and Island as good places to paddle	Number of disturbance sources	2	High	G
					Distance to nearest settlement	3		
					Proximity to recreational activity	3		
North Cornwall 2	N/A	Mainland cliffs	Mainland colony situated very close to popular seaside resort of Padstow, ~2.75km	Walkers; the southwest coastal path runs ~50m from the clifftops	Number of disturbance sources	3	High	G

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
				Birdwatchers; minor eBird hotspot on Stepper Point Watercraft; Padstow has a lot of watercraft activity in an out of the camel estuary and around the local coast Climbers; Butter Hole a listed climbing spot on UK Climbing	Distance to nearest settlement	2		
					Proximity to recreational activity	3		
North Cornwall 3	N/A	Mainland cliffs	Mainland colony situated between Harlyn Bay and Padstow (~500m from Trevone), two popular holiday and water sports hotspots;	Walkers; southwest coastal past runs 10-15m from cliff edge Watercraft; a lot of water sports activity and tracks out of Trevone Bay and Harlyn Bay along coast around Roundhole Point Climbers/Coasteering; there is a climbing route listed on Trevone head, and a coasteering company operating out of Harlyn bay; and out of Trevone Bay	Number of disturbance sources	2	High	G
					Distance to nearest settlement	3		
					Proximity to recreational activity	3		
Ore Stone	N/A	Offshore Islet (~880m)	Small Island just off the north end of Torbay near Torquay (2.8km); a very busy bay area with three large holiday towns; Brixham fishing port and two marinas	Watercraft; with two marinas and a fishing port this area is guaranteed; a lot of activity on Strava also for water sports	Number of disturbance sources	1	Medium	A
					Distance to nearest settlement	2		
					Proximity to recreational activity	3		
Portreath – Porthtowan 2	Godrevy Head to St Agnes SSSI	Mainland cliffs	Small cliff colony ~650m north of Portreath; ~ 3.8km southwest of	Walkers; coastal path passes within 200m of colony location; with activity on Strava	Number of disturbance sources	1	Medium	A

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
			Porthtowan, both small tourist hotspots	showing approaches to within very edge of clifftop above colony Watercraft; plenty of watersports activity out of Portreath and Gooden Heane Cove out and around the point where the colony resides	Distance to nearest settlement	3		
					Proximity to recreational activity	3		
Rillage Point to Ramsay Beach	N/A	Mainland cliffs	Cliffs/rocky crags on small point along coastal path between Ilfracombe (2km west) Watermouth (1.3km east) and Combe Martin (3.36km east), two very popular tourist destinations	Walkers; ~60m from Southwest coastal path; in a very popular stretch of coastline for tourism Birdwatchers; minor eBird hotspot on Hele Bay Watercraft; adjacent to a beach accessible to small watercraft, a lot of Strava activity showing watersports in the area, along popular kayaking route between Ilfracombe and Combe Martin	Number of disturbance sources	2	Medium	G
					Distance to nearest settlement	2		
					Proximity to recreational activity	3		
Seal Hole to Trevaunance Cove	N/A	Mainland cliffs	Cliff section between Trevaunance cove and Newdowns Head, popular area for tourists and surfers; central St Agnes ~1.1km from colony; Porthtowan ~4.25km to the south	Walkers; the southwest coastal path comes within ~50m of the cliff edges here, again another popular holidaying area for outdoors enthusiasts Birdwatchers; minor eBird hotspot on St Agnes head Watercraft; some activity on Strava showing logged routes pass the cliffs Aircraft; ~2.5km from Perranporth Airfield	Number of disturbance sources	2	Medium	G
					Distance to nearest settlement	2		
					Proximity to recreational activity	2		
St. Agnes Head to Newdowns Head	N/A	Mainland cliffs	Cliff section between St Agnes Head and Newdowns head; popular area for tourists and surfers; central St Agnes ~1.8km from colony; Porthtowan ~3.8km to the south	Walkers; southwest coastal path passes within 100m of cliff edges Birdwatchers; minor eBird hotspot on St Agnes head	Number of disturbance sources	3	Medium	G
					Distance to nearest settlement	2		

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
				Watercraft; some activity on Strava showing water sports activities passing by the cliffs Aircraft; ~3km from Perranporth Airfield	Proximity to recreational activity	2		
The Brisons	N/A	Offshore Islet (~1km)	Small islet approximately 1km off of the mainland; the nearest significant settlements being St Just, inland about 2.75km east, and Sennen Cove ~5km to the south; this area is popular for tourists but in a remote part of Cornwall	Watercraft; there could be some watercraft activity here since it is not far off the mainland, but the seas are renowned to be rough in this exposed coastline, so may not be a huge amount of activity away from sheltered bays; Strava heat maps are restricted to Sennen Cove to the south, likely mainly surfers Aircraft; Land's End airport is ~4km southeast, with flights out to the Scilly Isles, unlikely to fly far north enough to pass over though	Number of disturbance sources	1	Low	R
					Distance to nearest settlement	2		
					Proximity to recreational activity	1		
The Mouls	N/A	Offshore Islet (~300m)	Small island ~300m off the mainland, closest popular town of Polzeath ~2.5km to the south over a headland	Watercraft; some activity on Strava showing watersports passing nearby; also likely is passing small inshore craft from either sea safari companies or fishing vessels out of Padstow; on OpenStreetMap a 'Puffin Island Pleasure Boat Trip' route is listed circling The Mouls Climbers; some climbing routes logged on The Mouls on UK Climbing	Number of disturbance sources	1	Medium	A
					Distance to nearest settlement	2		
					Proximity to recreational activity	3		
Tresungers Point	N/A	Mainland cliffs	Small point on cliffs along coast from Port Gaverne (~0.7km) and Port Isaac (1.25km), small fishing villages and popular tourist destinations	Walkers; the southwest coastal path passes within 100m of the colony location, and the proximity to the two villages nearby will mean likely a lot of foot traffic in the summer Watercraft; A fair amount of watersports activity logged out of Port Gaverne and Port	Number of disturbance sources	2	Medium	A
					Distance to nearest settlement	3		

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
				Isaac, with some tracks reaching out to Tresungers Point; there are also small inshore fishing fleets, certainly at Port Isaac that may pass the colony at points Coasteering; Coasteering company that runs tours out of Port Gaverne	Proximity to recreational activity	2		
Treyarnon – Merope	N/A	Mainland cliffs	Located on the Trevose Headland, a national trust site with car park, the colony is situated on a popular stretch of cast with tourists; Constantine Bay resort town is ~2.5km to the southeast, with Harlyn bay ~2.75 to the east	Walkers; the coastal path passes within ~100m of the cliff edges round the headland, with two landmarks of Dinas Head and Trevose Head Lighthouse for people to visit en route Birdwatchers; minor eBird hotspot on Trevose Head Watercraft; there is a good deal of watersports activity logged out of Constantine up the west side of the headland along the base of the cliffs; likewise on the east side out of Harlyn and Trevose Climbers/Coasteering; A number of climbing routes are mapped around the headland and Trevone Bay Adventures offer coasteering in the area, they are situated ~3km east	Number of disturbance sources	3	Medium	A
					Distance to nearest settlement	2		
					Proximity to recreational activity	2		
Woody Bay 1 and 2	West Exmoor Coast and Woods SSSI	Mainland cliffs	Located on a remote bay in Exmoor, the nearest major settlements are Lynton/Lynmouth ~4km to the east, with the Heddon Valley National Trust ~2.5km to the southwest. A small handful of campsites nearby, and some private homes in the bay, this is a generally quieter area	Walkers; the beach is accessible at mid-low tides and walkers can scramble over rocks at the cliff bases, there is also a swimming pool cut into the rocks at the east end of the bay; the southwest coastal path runs ~20m at places from the cliff edges in this area Birdwatchers; minor eBird hotspot on Woody Bay Climbers; there are a small number of climbing routes logged in the adjacent Lee	Number of disturbance sources	3	Medium	A
					Distance to nearest settlement	2		
					Proximity to recreational activity	2		

Site	Designation	Site Type (Offshore/ Mainland)	Nearest Settlement	Likely Sources of Anthropogenic Disturbance	Disturbance scores		Overall Level of Disturbance	RAG category
					Factor	Score		
				Bay (~500m), so people may venture round to Woody Bay Watercraft; Woody bay touted as desirable location to paddle to from other towns such as Combe Martin nearby There is little to no activity logged on Strava in this area				
Wringapeak	West Exmoor Coast and Woods SSSI	Mainland cliffs	More secluded than the other woody bay sites, but set out of the low tide area and down away from the coastal path which runs through forested cliff tops in this part of the bay	Birdwatchers; eBird hotspot for Lynton cliffs Watercraft; Woody bay touted as desirable location to paddle to from other towns such as Combe Martin nearby	Number of disturbance sources	1	Medium	G
					Distance to nearest settlement	3		
					Proximity to recreational activity	2		

Table 5.5 Final guillemot and razorbill colony shortlist for small colony intervention compensation

Site	Level of Disturbance	Guillemot Population Trend	Guillemot Population Size	Razorbill Population Trend	Razorbill Population Size
Carters Rocks	High	decreasing	2000 – 0 2007 – 20 2015 – 47 2017 – 8	decreased to zero	2000 – 0 2007 – 8 2017 – 0
Cow and Calf	Medium	decreasing	2001 – 224 2008 – 540 2016 – 1308 2018 – 1165 2023 – 760	decreasing	2001 – 18 2008 – 168 2016 – 181 2018 – 110 2023 – 103
Gull Rock (Falmouth)	Medium	decreasing	2000 – 148 2007 – 143 2016 – 309 2017 – 300 2023 – 298	decreasing	2000 – 1 2007 – 12 2016 – 31 2017 – 18 2023 – 17
Gulland Rock	Medium	decreasing	2007 – 45 2015 – 1019 2016 – 1176 2017 – 580	decreasing	2007 – 15 2015 – 82 2016 – 52
Highveer Point	Medium	decreasing	2016 – 53 2023 – 21	decreasing	2008 – 7 2016 – 178 2023 – 23
Lynton 1 and 2	High	decreasing	2008 – 160 2016 – 361 2023 – 240	decreasing	2008 – 117 2016 – 58 2023 – 34
North Cliffs 1	High	decreasing	2000 – 151 2013 – 139 2014 – 154 2016 – 150 2020 – 102	decreased to zero now at 1	2000 – 46 2016 – 0 2020 – 1

Site	Level of Disturbance	Guillemot Population Trend	Guillemot Population Size	Razorbill Population Trend	Razorbill Population Size
North Cornwall 2	High	decreasing	2000 – 13 2015 – 134 2016 – 108 2017 – 84 2017 – 38	only one year of data	2017 – 49 2017 – 34
North Cornwall 3	High	overall increase but decrease from previous year	2015 – 88 2016 – 87 2017 – 54 2017 – 40 2018 – 64 2019 – 59 2020 – 81 2021 – 77 2022 – 112 2023 – 102	decreasing after period of stable	2000 – 5 2015 – 67 2017 – 59 2018 – 45 2019 – 64 2020 – 79 2021 – 86 2022 – 86 2023 – 58
Rillage Point to Ramsay Beach	Medium	N/A	N/A	decreasing	2008 – 41 2018 – 10
Seal Hole to Trevaunance Cove	Medium	decreasing	2000 – 63 2015 – 122 2017 – 122 2018 – 89 2023 – 24	decreasing	2000 – 7 2017 – 70 2018 – 38 2023 – 7
St. Agnes Head to Newdowns Head	Medium	N/A	N/A	decreasing	2000 – 5 2016 – 5 2017 – 43 2018 – 60 2023 – 1
Wringapeak	Medium	decreasing	2001 – 434 2008 – 265 2016 – 854 2018 – 912 2023 – 530	decreasing	2001 – 15 2008 – 208 2016 – 216 2018 – 115 2023 – 61

5.1.4 Potential Collaboration with other Projects

36. Reduction of recreational disturbance at small breeding colonies in the southwest of England is also being considered by other OWF projects (e.g. Five Estuaries, Outer Dowsing and Rampion 2 Offshore windfarm projects). There is therefore potential for collaboration between North Falls and these other projects and work is ongoing to identify potential collaboration opportunities. Where appropriate, any long-listed site (Table 5.1) may be considered further, subject to evidence of ecological effectiveness.

6 Details of Compensatory Measure

6.1 Delivery Mechanism

37. Reduction of recreational disturbance at a breeding colony could include one or more management intervention such as:

- Onsite interventions
    - Wardens/guides could be employed to influence visitor behaviour;
    - Fencing or buoyage can be used to enforce set back distances from sensitive areas;
    - Signs can be used to raise awareness of visitors to the presence of the breeding colony and include information on appropriate behaviour around seabirds (including set back distances). Signage could be extended into the sea to cover water sports by using buoys; and
    - Time or seasonal restrictions – the above could be implemented for sensitive times or seasons e.g. inhibiting approach to the colony within a certain distance by people during the breeding season.
- Working with stakeholders
    - Codes of practice could be developed with activity or equipment hire businesses and recreational activities. This could apply both onshore and offshore. This could be a mechanism to educate visitors on best practice and could be delivered as part of a site / activity briefing. This could be linked to broader visitor access statements which would be available through websites or signs / interpretation boards but be an active rather than passive communication tool.

38. Not all of the above would be practical or feasible at each site. The Applicant would engage with local stakeholders at each site to confirm the nature of any disturbance and plan the feasible interventions.

39. Delivery of this compensatory measure could be by the Project alone or in collaboration with other OWFs.

40. Alternatively, the Applicant may consider strategic compensation, as described in Section 8.

6.2 Location of Compensatory Measure

41. Locations considered suitable for the compensation measure are discussed in Section 5 (Table 5.5) and shown on Figure 1a-f.

42. The location of the compensation measure will be determined by both the numbers of birds required for compensation (calculated in Section 6.3) and the compensation potential of shortlisted sites (Table 6.4). Part of the final selection of a site / the sites will also be influenced by future decisions on whether this measure is carried out collaboratively with other OWF developers, or if it is a North Falls alone measure, as a collaborative effort would result in a higher scale of nesting potential and therefore may increase the number of colonies where the compensatory measure would need to be implemented.

6.3 Scale of Compensation

43. To calculate the required number of new recruits, and thus breeding pairs, of adult birds into the FFC SPA population, the applicant has followed the Hornsea Project Four approach to compensation quantum (APEM, 2022). This uses equations that incorporate species specific demographic data from Horswill and Robinson (2015) to derive the number of breeding pairs required to produce the necessary number of new recruits into the population:

Equation One[1]:

$$N_{Fledglings\ required} = \left(\frac{N_{New\ breeding\ recruits\ required}}{\coprod_{Age\ =\ 0}^{Age\ =\ i} Survival_{Age}} \right)$$

Equation Two:

$$N_{Breeding\ pairs\ required} = \frac{N_{Fledglings\ required}}{Productivity}$$

44. Table 6.1 details the demographic parameters used for both guillemot and razorbill compensation number calculations:

Table 6.1 Demographic parameters used in the auk compensation numbers calculations

Demographic parameter	Value
Guillemot	
Age of recruitment	6
Productivity rate	0.659
Juvenile survival (0 – 1 year)	0.560

[1] *N(New breeding recruits required)* is equivalent to the number of mortalities from North Falls; *i* represents the age of recruitment (6 in Guillemot; 5 in Razorbill).

Demographic parameter	Value
Immature survival (1 – 2 years)	0.792
Immature survival (2 – 3 years)	0.917
Adult survival (≥4 years)	0.939
Razorbill	
Age of recruitment	5
Productivity rate	0.643
Juvenile/Immature survival (0-2 years)	0.792
Adult survival (≥3 years)	0.939

45. Sections 6.3.1 and 6.3.2 detail the calculated compensation numbers for guillemot and razorbill, respectively. The number of breeding pairs required is given at a 1:1 ratio – based on the calculations described, and at a compensation ratio of 2:1 – doubling the predicted number of pairs. Increasing the predicted number of pairs through use of a 2:1 ratio may be considered to account for uncertainty in the predictions.

6.3.1 Guillemot

46. As displayed in Table 3.1 (Section 3), at displacement rates of 30% to 70% and mortality rates of 1% to 2% for displaced birds, a mean of 0.7 to 3.3 FFC SPA breeding adult guillemot would be predicted to die annually due to displacement from North Falls.

47. At the displacement and mortality rates of 50% and 1%, respectively, which the Applicant considers to be appropriately precautionary, it is predicted that the annual mortality of SPA guillemots due to displacement and barrier effects from North Falls would be 1.2 birds, equivalent to a 0.01% increase in population mortality rate.

48. Following calculation of compensation numbers using the range of displacement / mortality scenarios displayed in Table 3.1, the minimum number of pairs required would be four (30% displacement, 1% mortality; mean number of mortalities; 1:1 compensation ratio), and at the Applicant's preferred scenario of 50% displacement and 1% mortality, the numbers of pairs required would be six on a 1:1 compensation ratio. The full range of displacement / mortality scenarios and compensation ratios are displayed below in Table 6.2.

Table 6.2 Calculated guillemot breeding pair requirements for compensation at varying displacement / mortality and compensation ratios. Values in red belong to the Applicant's preferred approach

Scenario (Displacement / Mortality)	Number of Mortalities	Fledglings required	Breeding pairs required at given compensation ratios	
			1:1	2:1
30% / 1% Mean	0.7	2.08	4	7
50% / 1%	1.2	3.56	6	11

Scenario (Displacement / Mortality)	Number of Mortalities	Fledglings required	Breeding pairs required at given compensation ratios	
			1:1	2:1
Mean				
70% / 2% Mean	3.3	9.8	15	30

6.3.2 Razorbill

49. At displacement rates of 30% to 70% and mortality rates of 1% to 2% for displaced birds, a mean of 0.3 to 1.6 FFC SPA breeding adult razorbill (Table 3.1) would be predicted to die annually due to displacement from North Falls.

50. However, at the Applicant's preferred evidence-based displacement and mortality rates of 50% and 1%, respectively, it is predicted that the annual mortality of SPA razorbills due to displacement and barrier effects from North Falls would be 0.6 birds, equivalent to a 0.01% increase in population mortality rate.

51. Following calculation of compensation numbers using the range of displacement / mortality scenarios displayed in Table 3.1, the minimum number of pairs required would be one (30% displacement, 1% mortality; mean number of mortalities; 1:1 compensation ratio). The full range of displacement / mortality scenarios and compensation ratios are displayed below in Table 6.3.

Table 6.3 Calculated razorbill breeding pair requirements for compensation at varying displacement / mortality and compensation ratios. Values in red belong to the Applicant's preferred evidence-based approach

Scenario (Displacement / Mortality;)	Number of Mortalities	Fledglings required	Breeding pairs required at given compensation ratios	
			1:1	2:1
30% / 1% Mean	0.3	0.58	1	2
50% / 1% Mean	0.6	1.16	2	4
70% / 2% Mean	1.6	3.08	5	10

6.3.3 Scale of management interventions

52. As discussed in Section 6.2, the number of locations where the compensatory measure would be delivered would be determined by the numbers of birds required for compensation described above; the compensation potential of shortlisted sites (Table 6.4); and whether this measure is done collaboratively with other developers, or if it is a North Falls alone measure. The compensation potential is the difference between the historic peak count and the most recent count, expressed as individuals and pairs.

Table 6.4 Potential scale of benefit at breeding sites (see Table 5.5). Number of breeding pairs is calculated by applying a 0.67 correction factor to the number of individuals (JNCC, 2021)

Colony	Guillemot				Razorbill			
	Historic peak counts	Recent counts	Compensation Potential		Historic peak counts	Recent counts	Compensation Potential	
			Individuals	Pairs			Individuals	Pairs
Carters Rocks	47	8	39	26	8	0	8	5
Cow and Calf	1308	760	548	367	181	103	78	52
Gull Rock (Falmouth)	309	298	11	7	31	17	14	9
Gulland Rock	1176	580	596	399	82	52	30	20
Highveer Point	53	21	32	21	178	23	155	103
Lynton 1 and 2	361	240	121	81	117	34	83	55
North Cliffs 1	154	102	52	34	46	1	45	30
North Cornwall 2	134	38	96	64	49	34	15	10
North Cornwall 3	112	102	10	6	86	58	28	18
Rillage Point to Ramsay Beach	N/A	N/A	N/A	N/A	41	10	31	20
Seal Hole to Trevaunance Cove	122	24	98	65	70	7	63	42
St. Agnes Head to Newdowns Head	N/A	N/A	N/A	N/A	60	1	59	39
Wringapeak	912	530	382	255	208	61	147	98

6.4 Outline Timing of Compensation Delivery

54. If required, the compensation measure would be put in place at least four breeding seasons (guillemot: March-July, razorbill: April-July, (Furness, 2015)) before the operational phase of North Falls, therefore the compensation measure should be generating recruits to the breeding population in equivalent numbers to any breeding adults lost to displacement mortality, by the time North Falls becomes operational.

6.5 Implementation and Delivery Roadmap

55. The MMO, Natural England, and the RSPB will be invited to form either a Guillemot and Razorbill Compensation Steering Group (GRCSG), or a Guillemot Compensation Steering Group (GCSG) should the SoS conclude an AEoI for guillemot only as per Hornsea Project Four, and SEP and DEP.

56. The GRSCG/GCSG would oversee the development of the CIMP. The CIMP will set out the detailed delivery proposals for the agreed compensatory measures based on those set out in this Guillemot and Razorbill Compensation Document. Depending on the conclusions of the Appropriate Assessment, the CIMP would include guillemot and razorbill, guillemot alone or razorbill alone, as required.

57. Whether the compensatory measure is project-led or collaborative, the same basic steps would need to be taken:

- Identification of pressures at the site(s):
    - The information presented in Table 5.4 (or similar from collaborative project) would be the starting point to map, in greater detail, the pressures affecting the site. This should include any information on seasonality that may be relevant.
    - This would also include an initial stakeholder mapping exercise to understand the range of people using the site. Consideration would also be given to surveys of recreational disturbance at shortlisted sites.
    - This would lead to a refined shortlist of sites and delivery methods which would be agreed with the GRSCG/GCSG. This list of sites would need to meet the minimum required level of compensation and include redundancy if some locations proved to be unsuitable as the process progresses.

2. Review of pressures and existing management measures:
    - The review from (1) would be shared with key local stakeholders (e.g. landowners, NGOs, Local Authority, etc) to seek feedback and information on further available data, and any current, former or proposed management measures.
3. Identification of potential additional management measure(s):
    - The results of (2) would be used to develop a suite of potential additional management measures (or extension of existing ones).
    - This would include details of the measure, programme and duration of delivery, how this would be funded and implemented on the ground and monitoring and reporting mechanisms.
4. Consultation
    - Consultation would be undertaken with a wider stakeholder group to gauge support for proposed additional measures and seek further feedback.

5. Draft site plan
    - The site plan(s) would be presented to the Steering Group and together these would provide the detail for the final CIMP

6.6 Monitoring and Adaptive Management

58. Monitoring will be required for all stages of the proposed management programme. The details of monitoring proposals will be discussed with the GRCSG/GCSG, as part of the development of the the CIMP. Key details to be agreed will be the frequency, duration, and nature of monitoring methodology, as well as data analysis (if relevant) and reporting requirements.

59. Given the nature of the proposed management (and the scale of the effect for which compensation is required), it may be difficult to derive cause and effect relationships. Monitoring may need to be by indirect methods, such as visitor statistics or colony counts, comparing trends with control colonies in the region.

60. Deriving any metrics for success or conversely understanding what would trigger remedial action will be dependent upon each site measure.

7 Impact of Proposed Compensatory Measure

61. The management measures proposed would largely be designed to change visitor behavior and therefore not have any physical effect upon the sites or ecological features associated with them.

62. Where a chosen site is located within a designated site, reference would be made to any Special Area of Conservation (SAC) or SPA Conservation Objectives, Supplementary Advice and Management Plans, Site Improvement Plans etc. If fencing or signage were to be installed this would be undertaken in line with any required policies such as SSSI consent. The design would consider effects on other receptors, including heritage, landscape, geomorphology and hydrology. In each case, the compensation design would be required to ensure that significant adverse effects on sensitive receptors were avoided.

63. Consideration has been given to potential impacts that might arise as a result of the implementation of reduction of recreational disturbance at a breeding colony. The potential impacts identified are described in Table 7.1 together with details, where relevant, of how these would be avoided, reduced or mitigated.

Table 7.1 Potential impact of proposed compensation measures

Potential impacts	Details	Measures required to avoid, reduce or mitigate	Effect significance
Impacts on other protected areas and features	The proposed compensation may be located within, or in proximity to, sites designated for nature conservation. Potential impacts associated with the installation of fencing/signage are:	Construction of the fence to take place outside of bird nesting season; Speed limits for vehicles associated with construction and management/maintenance; and	With the implementation of mitigation measures, there would be no likely significant effect on protected areas or features.

Potential impacts	Details	Measures required to avoid, reduce or mitigate	Effect significance
	A small amount of temporary habitat modification/loss (scraped back vegetation and topsoil along the fence line); Potential disturbance of qualifying species at the fence site due to construction activities; Potential disturbance of qualifying species from the transport of materials, machinery and personnel to site; and Potential disturbance of qualifying species at the fence site due to ongoing maintenance / management activities.	Habitat management and fence maintenance to take place outside of nesting season.	
Visual impact of interventions (e.g. fencing, signage or buoys)	The long list of options included locations within the Cornwall and Devon National Landscapes (previously Areas of Outstanding Natural Beauty) and Exmoor National Park. While this would typically denote a high value, the sensitivity of this landscape to the effects of compensation such as a fence would be moderated by the modern land use practices in this area and across the wider National Landscape. There are unlikely to be any settlements or roads close to the selected location. Therefore, those experiencing views (i.e walkers) in this area is limited.	Use of sensitive colours on the fence, signage and/or buoys to allow it blend in with surroundings, and limiting the height would mitigate the visual impact.	With the implementation of the mitigation measures, there would be no likely significant effect on landscape and visual receptors
Impact on cultural heritage assets	The proposed compensation e.g. fencing could have an impact on cultural heritage assets depending on its location. However, no impacts to the setting of heritage assets are expected given the predicted lack of landscape and visual related effects.	The site selection process for the location of the fencing, signage and/or buoys would include principles setting out the avoidance of statutory heritage designations.	There would be no likely significant effect on cultural heritage receptors.
Impacts on tourism and recreation	Onsite interventions to reduce recreational disturbance would represent highly localised disturbance to tourism and recreation, such as minor displacement.	Where practicable, diversions or alternative routes would be established, if fencing/set back distances block public rights of way. Where a measure could disrupt users, implementation of the measure would be limited to the breeding season.	There would be no likely significant effect on tourism and recreation.

8 Strategic Compensation and Marine Recovery Fund

64. It is recognised that discussions are ongoing in Government and with industry regarding strategic compensation measures, with predator reduction on the Defra (2024) list of approved measures which are suitable for strategic

compensation. This measure would be suitable for guillemot and razorbill and should this (or any other strategic measure) become available, the Applicant may give this further consideration.

65. Strategic compensation would be implemented wholly in substitution of the project led/collaborative compensatory measure, at a level proportionate to the effects described in Section 3; or partly in substitution, in the unlikely event the proposed reduction of recreational disturbance was not able to deliver the full compensation requirement.

66. Defra's intention to introduce legislation to enable the establishment of the Marine Recovery Fund and the recent consent award for SEP and DEP should give decision-makers confidence that, if required in addition to the collaborative measure outlined above, a strategic solution can be put in place to support North Falls and can therefore be relied upon by the SoS in their decision to grant the Project's development consent, should the Appropriate Assessment conclude that an AEoI as a result of North Falls cannot be ruled out. Notwithstanding, the Applicant has proposed project specific compensation which can be relied upon.

9 Summary

67. A range of compensatory measures for guillemot and razorbill have been considered by the Applicant and developed through a process of pre-application consultation with stakeholders.

68. The Applicant's preferred compensation measure is the reduction of recreational disturbance at a colony or colonies for guillemot and/or razorbill in the southwest of England. This could be taken forward as part of a project alone or collaborative delivery model with one or more other OWF developers, in the event that an AEoI is concluded in the Appropriate Assessment.

69. Alternatively, the Applicant considers that strategic compensation (such as the Marine Recovery Fund) for guillemot and razorbill is a measure that could be wholly or partly substituted in place of the Applicant's proposed measure or as an adaptive management measure, if required.

70. The information provided demonstrates the ecological evidence for the measure, how the measure can be secured and that the mechanism for delivery can be implemented.

71. There are no likely significant effects associated with the compensatory measure.

72. The CIMP will set out the detailed delivery proposals for the agreed compensatory measure based on those set out in this Guillemot and Razorbill Compensation Document and in accordance with the Annex 5A Outline Guillemot and Razorbill CIMP (Document Reference: 7.2.5.1). The CIMP will be produced by the Applicant (if required) and approved by the SoS prior to the start of construction. Depending on the conclusions of the Appropriate Assessment the CIMP would include guillemot and razorbill, guillemot alone or razorbill alone.

10 References

APEM (2022). Calculation Methods of Hornsea Four's Proposed Compensation Measures for Features of the FFC SPA. APEM Scientific Report P00007416. Orsted, Issued February 2022, 23 pp.
Department for Energy Security & Net Zero (2024). Habitats Regulations Assessment for an Application Under the Planning Act 2008 - Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Projects.
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North Falls Offshore Wind Farm Limited

A joint venture company owned equally by SSE Renewables and RWE.

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