

RWE Renewables UK Dogger Bank South (West) Limited RWE Renewables UK Dogger Bank South (East) Limited

Dogger Bank South Offshore Wind Farms

Report to Inform Appropriate Assessment (RIAA) - Habitats Regulations Assessment

Volume 6

Appendix 3 - Project Level Dogger Bank Compensation Plan

June 2024

Application Reference: 6.2.3

APFP Regulation: 5(2)(q)

Revision: 01



Company:	RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited		Development
Project:	Dogger Bank South Offshore Wind Farms	Sub Project / Package:	Consents
Document Title or Description:	Appendix 3 - Project Level Dogger Bank Compensation Plan		
Document 005173994-01 Number:		Contractor Reference Number:	C01516_RWE_REP_D029

COPYRIGHT © RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited, 2024. All rights reserved.

This document is supplied on and subject to the terms and conditions of the Contractual Agreement relating to this work, under which this document has been supplied, in particular:

LIABILITY

In preparation of this document RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited has made reasonable efforts to ensure that the content is accurate, up to date and complete for the purpose for which it was contracted. RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited makes no warranty as to the accuracy or completeness of material supplied by the client or their agent.

Other than any liability on RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited detailed in the contracts between the parties for this work RWE Renewables UK Dogger Bank South (West) Limited and RWE Renewables UK Dogger Bank South (East) Limited shall have no liability for any loss, damage, injury, claim, expense, cost or other consequence arising as a result of use or reliance upon any information contained in or omitted from this document.

Any persons intending to use this document should satisfy themselves as to its applicability for their intended purpose.

The user of this document has the obligation to employ safe working practices for any activities referred to and to adopt specific practices appropriate to local conditions.

Rev No.	Date	Status/Reason for Issue	Author	Checked by	Approved by
01	June 2024	Final for DCO Application	CEA	RWE	RWE





Contents

1	Intr	oduc	ction	12
	1.1	Pro	ject Background	12
	1.2	The	Crown Estate's Plan Level HRA	13
	1.3	Stro	ategic Compensation for Offshore Wind	15
	1.3	.1	Offshore Wind Industry Council (OWIC)	17
	1.4	Pur	pose of Document	18
	1.5	Imp	olications of the Project Development Scenarios	18
2	Leg	gislat	ion & Guidance	21
	2.1	UK	National Legislation	21
	2.2	Gui	dance on Compensatory Measures	21
3	The	• Dev	velopment of Compensatory Measures	25
	3.1	Sta	keholder Engagement	26
4	Dog	gger	Bank SAC	29
	4.1	Site	Description	29
	4.1	.1	Qualifying Features	29
	4.1	.2	Conservation Objectives	29
	4.1	.3	Condition Assessment	30
	4	.1.3.	1 Extent, Distribution and Structure	30
	4	.1.3.	2 Function	30
	4.2	Sun	nmary of Potential Impacts	31
	4.2	.1	Quantification of Effects	31
	4	.2.1.	1 Projects Alone	31
	4	.2.1.	2 In Combination	33
5	Cor	nper	nsation Quantum	35
	5.1	Pro	jects Alone	35
	5.2	Rou	ınd 4 Plan	36
	5.3	Cor	mpensation Multiplier	38
6	Cor	nper	nsatory Measures	40
	6.1	Ove	erview	40
	6.2	Nev	v Protected Site Designation or Extension	40
	6.2	.1	Overview	40

RWE

		Dogger Bank South Offshore Wind Fo	ırms	
	6.2.2	Scale	42	
6.2.3		Delivery Mechanism	43	
	6.2.4	Location	45	
	6.2.5	Timescales	47	
	6.2.6	Monitoring and Adaptive Management	48	
	6.2.7	Outline Design Details	50	
	6.2.8	Potential Impacts from Implementation	50	
	6.3 Res	triction of Fishing Activity	50	
	6.4 Sec	grass Meadow Restoration	51	
7	Funding		53	
8	Summa	ry	54	
т.	ables			
		ummary of Pre-application Consultation Undertaken for the Projects	27	
		orst Case Scenarios for Habitat Loss within the DB SAC		
To th	able 5-1 Pi e Projects	redicted Worst-case Extent of Habitat Loss and Direct Damage Associated v Assessed within the Plan Level HRA (The Crown Estate, 2022) and the RIAA (application ref: 6.1)	with	
		ummary of Compensatory Measures for Dogger Bank SAC and Associated ions Proposed by the Applicants	40	
		. Summary of the Applicants' Compensation Proposal for Dogger Bank in Natural England's Checklist	55	
Fi	gures			
		Outline of the Offshore SAC Designation Process (Based on JNCC (2015) and Lb))		
De	rigure 6-2 Dogger Bank SAC Benthic Study Area Showing EUNIS Habitat Classification as Determined from Utilising the EUNIS Sediment Descriptions from Particle Size Distribution of Samples Collected During the Survey46			



Glossary

Term	Definition	
Array cables	Offshore cables which link the wind turbines to the Offshore Converter Platform(s).	
Competent authority	Is either a public body that decides to give a licence, permit, consent or other permission for work to happen, adopt a plan or carry out work for itself (such as a local planning authority), a statutory undertaker carrying out its work (such as a water company or an energy provider); a minister or department of government; or anyone holding public office (such as a planning inspector).	
Concurrent scenario	A potential construction scenario for the Projects where DBS East and DBS West are both constructed at the same time.	
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).	
Development Scenario	Description of how the DBS East and/or DBS West Projects would be constructed either in isolation, sequentially or concurrently.	
Dogger Bank South (DBS) Offshore Wind Farms	The collective name for the two Projects, DBS East and DBS West.	
Dogger Bank Steering Group	A strategic steering group for Dogger Bank SAC compensation formed by The Crown Estate. This group includes representatives from The Crown Estate and their technical advisor NIRAS Group (UK), Natural England, Joint Nature Conservation Committee, Department for Food, Environment and Rural Affairs, Department for Energy Security and Net Zero and RWE Renewables UK.	



Term	Definition	
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the value, or sensitivity, of the receptor or resource in accordance with defined significance criteria.	
Environmental Statement (ES)	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.	
European site	Sites designated for nature conservation under the Habitats Directive and Birds Directive. This includes candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation and Special Protection Areas, and is defined in regulation 8 of the Conservation of Habitats and Species Regulations 2017.	
Evidence Plan Process (EPP)	A voluntary consultation process with specialist stakeholders to agree the approach, and information to support, the Environmental Impact Assessment (EIA) and Habitats Regulations Assessment (HRA) for certain topics.	
Expert Topic Group (ETG)	A forum for targeted engagement with regulators and interested stakeholders through the EPP.	
Habitats Regulations Assessment (HRA)	The process that determines whether or not a plan or project may have an adverse effect on the integrity of a European Site or European Offshore Marine Site.	
Impact	Used to describe a change resulting from an activity via the Projects, i.e. increased suspended sediments / increased noise.	



Term	Definition
In Isolation Scenario	A potential construction scenario for one Project which includes either the DBS East or DBS West array, associated offshore and onshore cabling and only the eastern Onshore Converter Station within the Onshore Substation Zone and only the northern route of the onward cable route to the proposed Birkhill Wood National Grid Substation.
Inter-Platform Cable Corridor	The area where Inter-Platform Cables would route between platforms within the DBS East and DBS West Array Areas, should both Projects be constructed
Dogger Bank Strategic Compensation Plan	Document produced as part of The Crown Estate's Derogation Case in support of the Round 4 Plan which must be adhered to by Dogger Bank South West and Dogger Bank East through their agreement for lease conditions. The overall objective of the DBSCP is to "detail the development and delivery of strategic compensation to ensure the overall coherence of the UK National Site Network".
Marine Protected Area (MPA)	Areas of the ocean established to protect habitats, species and processes essential for healthy, functioning marine ecosystems. In England, MPAs are designated to protect specific habitats or species (also known as 'features') and have conservation objectives which state what conservation outcomes the MPA is designed to achieve.
Round 4 Plan	The Fourth Offshore Wind Seabed Leasing Round undertaken by The Crown Estate and adopted in January 2023.
Sediment	Particulate matter derived from rock, minerals or bioclastic matter.
Sequential Scenario	A potential development scenario for the Projects where DBS East and DBS West are constructed with a lag between the commencement of construction activities. Either Project could be built first.

Unrestricted 005173994



Term	Definition
Special Areas of Conservation (SAC)	Strictly protected sites designated pursuant to Article 3 of the Habitats Directive (via the Habitats Regulations) for habitats listed on Annex I and species listed on Annex II of the Directive.
Statutory Nature Conservation Bodies (SNCB) Comprised of the Joint Nature Conservation Committee Natural Resources Wales, Department of Agriculture, Environment and Rural Affairs/Northern Ireland Environment, Agency, Natural England and Scottish Natural Heritag these agencies provide advice in relation to nature conservation to government	
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms.
Trenching	Open cut method for cable or duct installation.



Acronyms

Term	Definition	
AA	Appropriate Assessment	
AfL	Agreement for Lease	
AEol	Adverse Effect on Integrity	
ANS	Artificial Nesting Structure	
AoS	Areas of Search	
BEIS	Department for Business, Energy and Industrial Strategy (now the Department for Energy Security and Net Zero (DESNZ))	
CIMP	Compensation and Implementation Monitoring Plan	
cowsc	Collaboration on Offshore Wind Strategic Compensation	
cSAC	Candidate Special Area of Conservation	
DBS	Dogger Bank South offshore wind farms	
DBSCP	Dogger Bank Strategic Compensation Plan	
DBSIMP	Dogger Bank Strategic Implementation and Monitoring Plan	
DCO	Development Consent Order	
Defra	Department for Food, Environment and Rural Affairs	
DESNZ	Department for Energy Security and Net Zero	
DML	Deemed Marine Licence	
dSAC	Draft Special Area of Conservation	
EC	European Commission	
EPP	Evidence Plan Process	

Unrestricted 005173994



Term	Definition	
ES	Environmental Statement	
ETG	Expert Topic Group	
EU	European Union	
EWG	Expert Working Group	
НРМА	Highly Protected Marine Area	
HRA	Habitats Regulations Assessment	
IFCA	Inshore Fisheries and Conservation Authority	
IROPI	Imperative Reasons of Over-riding Public Interest	
JNCC	Joint Nature Conservation Committee	
MCZ	Marine Conservation Zone	
ММО	Marine Management Organisation	
МРА	Marine Protected Area	
MRF	Marine Recovery Fund	
NGO	Non-Government Organisations	
NPS	National Policy Statement	
NSN	National Site Network	
OWEIP	Offshore Wind Environmental Improvement Package	
OWF	Offshore Wind Farm	
OWIC	Offshore Wind Industry Council	
pSAC	Possible Special Area of Conservation	
P2G	Pathways to Growth	

Unrestricted 005173994



Term	Definition	
RIAA	Report to Inform Appropriate Assessment	
SAC	Special Area of Conservation	
SACO	Supplementary Advice on Conservation Objectives	
SNCB	Statutory Nature Conservation Body	
SoS	Secretary of State	
SPA	Special Protection Area	
ToR	Terms of Reference	
UK	United Kingdom	



1 Introduction

1.1 Project Background

- 1. RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited ('the Applicants') are applying for a single Development Consent Order (DCO) for the Dogger Bank South (DBS) East and DBS West offshore wind farms (hereafter referred to as 'the Projects'). When fully operational, the Projects would have the potential to generate renewable power for over 3 million homes in the United Kingdom (UK) from up to 200 wind turbines¹.
- 2. The Applicants are submitting as part of their DCO application a **Volume 6**, **Report to Inform Appropriate Assessment (RIAA) (application ref: 6.1)**, which provides the information necessary for the competent authority to undertake an Appropriate Assessment (AA) to determine if there is any Adverse Effect on Integrity (AEoI) on the UK National Site Network (NSN).
- 5. For the Dogger Bank Special Area of Conservation (SAC) (DB SAC) 'sandbanks slightly covered by seawater all the time' feature (hereafter referred to as "sandbanks"), the Applicants' Volume 6, RIAA (application ref: 6.1) concludes that AEoI cannot be ruled out for long-term habitat loss when considered alone and in-combination with other offshore wind farms (OWFs). As such, the Applicants have put forward as part of their consent application, measures to compensate for the predicted impacts of the Projects, which are described in this Project Level Dogger Bank Compensation Plan. This document forms part of the Applicants' overarching Volume 6, Habitats Regulations Derogation: Provision of Evidence (application ref: 6.2).

¹ Calculation based on 2021 generation, and assuming average (mean) annual household consumption of 3,509 kWh, based on latest statistics from Department of Energy Security and Net Zero (Subnational Electricity and Gas Consumption Statistics Regional and Local Authority, Great Britain, 2021, Mean domestic electricity consumption (kWh per meter) by country/region, Great Britain, 2021.



1.2 The Crown Estate's Plan Level HRA

- 4. As part of the Plan level Habitats Regulations Assessment (HRA) for the Fourth Offshore Wind Seabed Leasing Round (the 'Round 4 Plan') (The Crown Estate, 2022), The Crown Estate (as the competent authority) concluded that AEoI as a result of the Round 4 Plan could not be ruled out in the case of Annex I sandbanks as a feature of the Dogger Bank SAC due to the predicted effects of the Projects.
- 5. The impact pathways for which a conclusion of AEoI has been reached in the Round 4 Plan level HRA are habitat loss and direct physical damage both alone and in-combination with other plans and projects.
- 6. Whilst the Applicants have reached the same conclusion as the Plan level HRA with respect to predicted habitat loss, a conclusion of no AEoI on the DB SAC in relation to direct physical damage (i.e. abrasion / disturbance of the seabed) from the Projects alone and in-combination has been concluded within the Projects' Volume 6, RIAA (application ref: 6.1). Thus, there is a divergence in the outcome of the Plan level HRA (The Crown Estate, 2022) and the Projects' Volume 6, RIAA (application ref: 6.1) with respect to this pressure. The implications of this divergence to the compensation quantum required at the Plan level versus the project level are discussed in section 5.2.
- 7. The Crown Estate submitted a 'derogation case' to the Secretary of State (SoS) alongside the Round 4 RIAA (The Crown Estate, 2022) which included a commitment to develop a Dogger Bank Strategic Compensation Plan (DBSCP) (The Crown Estate, 2024). The overall objective of the DBSCP is to "detail the development and delivery of strategic compensation [for the Round 4 Plan] to ensure the overall coherence of the UK National Site Network".
- 8. The DBSCP outlines the proposed strategic approaches to compensate for loss and damage to the sandbank feature of DB SAC and describes how measures can be secured, delivered, monitored, and adapted if necessary.
- 9. On 15th July 2022, the SoS for Business, Energy, and Industrial Strategy (BEIS) (now the Department for Energy Security and Net Zero (DESNZ)) approved The Crown Estate's derogation case and thus, The Crown Estate adopted the Round 4 Plan and subsequently entered into Agreements for Lease (AfL) for the six projects comprising Round 4.



- 10. The SoS's approval of the derogation case was conditional upon The Crown Estate establishing a steering group tasked with developing and agreeing upon the DBSCP, monitoring the compensatory measures, and putting in place adaptive management if necessary. Following the adoption of the Round 4 Plan, The Crown Estate formed a strategic steering group for DB SAC compensation (hereafter referred to as the 'Dogger Bank Steering Group') in accordance with the agreed Terms of Reference (ToR). The Crown Estate subsequently published the DBSCP in May 2024, following 17 months of engagement and development by the Dogger Bank Steering Group.
- 11. In accordance with the DBSCP, The Crown Estate is required to submit a Dogger Bank Strategic Implementation and Monitoring Plan (DBSIMP) to the SoS for DESNZ during the post-consent phase for the Projects. This document will provide further details on the delivery and implementation of the Plan level compensatory measures. It will also demonstrate that the necessary funding is defined and secured and ensure the benefits of the compensatory measures are shared across the Round 4 Plan. An outline version of the DBSIMP (which details the proposed content of this document) was published by The Crown Estate as an appendix to the DBSCP.
- 12. The Projects are required to adhere to the DBSCP under the terms of their AfL. The Applicants are required to participate in the process outlined in the DBSCP and comply with, undertake, and maintain (as necessary) the compensatory measures required to be adopted pursuant to the DBSCP. It therefore follows that the compensatory measures proposed by the Applicants as part of their project level derogation case are expected to align with the measures and approach outlined in the DBSCP and be secured as a requirement of the DCO.
- 13. The DBSCP and supporting appendices have played a crucial role in shaping the Projects' approach to the development of compensatory measures for DB SAC. Hence, the DBSCP and the associated appendices outlined below have been submitted as part of the Applicants' DCO application for consideration alongside this Project Level Dogger Bank Compensation Plan.
 - Volume 6, Round 4 Dogger Bank Strategic Compensation Plan (DBSCP) (application ref: 6.2.3.1)
 - Appendix A: Outline Dogger Bank Strategic Implementation and Monitoring Plan (DBSIMP)
 - o Appendix B: Letter of Acceptance from the Secretary of State
 - o Appendix C: Agreement Log

Unrestricted 005173994



- Appendix D: Compensation Measures Long List
- Appendix E: Potential Site Locations for Dogger Bank Compensation Measures
- Appendix F: DBS OWF SAC Extension Benthic Survey Technical Report
- 14. The compensatory measures agreed by the Dogger Bank Steering Group and presented in **Volume 6**, **DBSCP** (application ref: 6.2.3.1) to compensate for 2.035 km² of habitat loss and 32.209km² of habitat damage associated with the Round 4 Plan², in order of ecological preference, are:
 - Protected site designation or extension;
 - Restriction of fishing activity; and
 - Seagrass meadow restoration.
- 15. Under the ToR, the Dogger Bank Steering Group will continue to exist until all obligations have been discharged, including post-consent requirements such as development and submission of the DBSIMP to the SoS for approval. Thus, the Dogger Bank Steering Group will continue to operate following the submission of the Applicants' DCO application and during its examination. Any questions related to **Volume 6**, **DBSCP** (application ref: **6.2.3.1**) from the Examiners during the DCO examination process will be directed by the Applicants to The Crown Estate as chair of the Dogger Bank Steering Group for a response.

1.3 Strategic Compensation for Offshore Wind

- 16. In April 2022, the UK Government published the 'British Energy Security Strategy' (BESS) (HM Government, 2022). The BESS committed to implementing an Offshore Wind Environmental Improvement Package (OWEIP), which included, among others, measures to:
 - Revise the HRA process for offshore wind to facilitate the delivery of compensation measures whilst maintaining valued protection for wildlife.
 - Facilitate the delivery of strategic environmental compensation measures, including the development of a library of compensation

² These values represented The Crown Estate's understanding of the Round 4 Plan level impact at the timing of writing the **Volume 6, DBSCP (application ref: 6.2.3.1)** – this document acknowledges that revised values may become available once project information is refined.



- measures, through the Collaboration on Offshore Wind Strategic Compensation (COWSC)³.
- Implement an industry-funded Marine Recovery Fund (MRF) to which developers can choose to contribute to meet their environmental compensation obligations; and
- Implement a strategic monitoring programme to improve understanding of the environmental impacts of offshore wind projects.
- 17. The purpose of the OWEIP and these measures is to accelerate and de-risk the consenting of offshore wind, whilst ensuring environmental protections are maintained and domestic and international law is adhered to.
- 18. As outlined in National Policy Statement (NPS) for renewable energy infrastructure (EN-3) (DESNZ, 2023), the UK Government is still developing its policies on strategic compensation through the COWSC programme. However, in February 2024, the SoS for the Department for the Environment and Rural Affairs (Defra) approved the following compensatory measures recommended by COWSC for inclusion within the library of strategic compensatory measures (LoSCM) and for strategic delivery as compensation for offshore wind projects (Defra, 2024a):
 - For benthic habitats:
 - o Designation and/or extension of Marine Protected Areas (MPAs).
 - For seabirds:
 - Offshore ANS for kittiwake in English waters (only available for projects up to and including Round 4); and
 - Predator eradication and reduction.
- 19. The COWSC group will be responsible for implementing the measures in the LoSCM, with the exception of protected site designation or extension which will be implemented and delivered by Defra. The approach and timescales for delivery of protected site designation or extension are currently unknown. The Applicants will continue to engage with Defra, the COWSC group and relevant industry forums post-application on progress with respect to the implementation of these strategic compensatory measures.

³Collaboration on Offshore Wind Strategy Compensation (COWSC) brings together industry, environmental non-government organisations (NGOs), statutory nature conservation bodies (SNCBs), the UK Government and Devolved administrations and other relevant stakeholders with the purpose of finding strategic compensation solutions that enable the required development of offshore wind, whilst offsetting any impacts to the environment.

Unrestricted

Page 16

005173994





- 20. Sections 291 and 292 of the Energy Act 2023 enable the use of strategic compensation measures and the SoS to make regulations related to the establishment, operation and management of one or more MRFs for the development of offshore wind and associated infrastructure, respectively. The MRF is expected to be operational in 2025.
- 21. It is the Applicants' understanding that DESNZ is currently preparing advice for OWF developers on how strategic compensation and the MRF can be referred to in planning applications in advance of any statutory instruments coming into force. However, this information was not available at the time of writing. Further information with respect to strategic compensation will be provided to the Examining Authority during DCO examination at appropriate points and as it becomes available.

1.3.1 Offshore Wind Industry Council (OWIC)

- 22. The Applicants are active members of the Offshore Wind Industry Council (OWIC) derogation sub-group which was formed in 2021 to support the work of the Pathways to Growth⁴ (P2G) Coordination Group and to aid collaboration across the offshore wind industry. The P2G is the Sector Deal's workstream focussed on identifying and addressing the key environmental and consenting challenges that will be a barrier to the UK meeting its offshore wind 2030 target and playing its full role in delivering net zero. This includes HRA derogation, which is recognised as a key barrier to the growth of offshore wind.
- 23. The OWIC derogation sub-group has supported the work of the COWSC group in developing strategic compensation measures for offshore wind. The Applicants will continue to actively engage in the OWIC derogation subgroup and support the development and delivery of strategic compensation measures for the relevant / features through this collaborative initiative.

Unrestricted

Page 17

005173994

⁴ OWIC (2024). The Sector Deal's workstream focussed on identifying and addressing the key environmental and consenting challenges that will be a barrier to the UK meeting its offshore wind 2030 target and playing its full role in delivering net zero. Recognising the scale of the challenge, P2G brings together government representatives, SNCBs and industry across the UK's Devolved Administrations to work together in partnership.



1.4 Purpose of Document

- 24. This document sets out the details of the proposed compensatory measures for the sandbank feature of Dogger Bank SAC. It builds upon the information presented in **Volume 6**, **DBSCP (application ref: 6.2.3.1)** and supporting appendices to demonstrate how the measures identified and secured at the Plan level can be implemented by the Projects to compensate for their predicted impact on the sandbank feature of DB SAC.
- 25. As such, this document provides the following details in line with the Natural England Checklist (where relevant) for each of the proposed compensation measures for DB SAC:
 - Overview;
 - Scale:
 - Delivery mechanism i.e. how the measures are proposed to be delivered;
 - Location;
 - Timescales:
 - Monitoring, maintenance and adaptive management; and
 - Potential impacts from implementation of the compensation.
- 26. This Project Level Dogger Bank Compensation Plan is accompanied by an Volume 6, Outline Dogger Bank Compensation Implementation and Monitoring Plan (CIMP) (application ref: 6.2.3.2). Should a Dogger Bank CIMP be required in addition to the DBSIMP (i.e. the equivalent document for the Round 4 Plan), this will be produced by the Applicants and approved by the SoS prior to the start of construction. The Dogger Bank CIMP will set out detailed delivery proposals for the agreed compensatory measures based on the information provided in this document and the supporting appendices.

1.5 Implications of the Project Development Scenarios

The Projects may be delivered under a range of project development scenarios. Details of the scenarios and how these are assessed in the DCO application are set out in section 5.1.1 of **Volume 7, Chapter 5 Project Description** (application ref: **7.5**) of the Environmental Statement (ES).



- 28. The Applicants' approach to the development of the proposed compensatory measures has assumed that both DBS East and DBS West are developed and that the package of measures proposed for each of the relevant sites and features outlined in section 1.1 is considered to deliver the necessary level of compensation (factoring in the risks and uncertainty associated with delivering successful compensation) to address the worst-case impacts of both DBS East and DBS West, as required by draft Defra guidance (Defra, 2021a).
- 29. The development scenarios for the Projects include:
 - In Isolation Scenario where only DBS East or DBS West is developed.
 - Concurrent Scenario- where DBS East and DBS West are both constructed at the same time; or
 - Sequential Scenario both DBS East and DBS West are developed sequentially.
- 30. As outlined in **Volume 7, Chapter 5 Project Description (application ref: 7.5)** of the ES, the Applicants would develop DBS East and DBS West transmission infrastructure as co-ordinated projects and, where practicable, the Projects would co-locate infrastructure to reduce overall environmental impacts and disruption.
- 31. For the sandbank feature of DB SAC, it is the direct loss of habitat as a result of the installation of turbine foundations, scour protection, cable protection and cable crossings that requires compensation. Although there will be further abrasion / disturbance of the seabed as a result of activities such as sandwave levelling / clearance, cable burial (where not followed by rock protection, which is assessed as 'habitat loss'), survey equipment deployment (e.g. cores and trawls) and placement of temporary anchors and jack-up barge legs, the Applicants have reached a conclusion of no AEoI on the Dogger Bank SAC with their **Volume 6, RIAA (application ref: 6.1)**. Thus, no compensation is required with respect to this predicted impact. As outlined in section 1.2, the Applicants' conclusion with respect to further abrasion / disturbance of the seabed (i.e. direct physical damage) diverges from the conclusion reached by the Plan level HRA) - the implications of this divergence to the compensation quantum required at the Plan level versus project level is discussed in further detail in section 5.2.



- 32. In all three development scenarios, the first installation of turbine foundations, array cables and export cables is expected in Q2 2027 at the earliest. Up to 100 wind turbines will be installed at each of DBS East and DBS West (subject to the final turbine technology), equating to a maximum of 200 turbines across the two Projects. Information on the maximum extent of scour and cable protection required under each of the three development scenarios is provided in section 5.5 in **Volume 7, Chapter 5 Project Description (application ref: 7.5)** of the ES.
- 33. Where DBS East and DBS West are delivered in the Sequential Scenario, the overall final package of compensation to be delivered will be the same as in the Concurrent Scenario. The Applicants therefore consider it practical to deliver all of the compensation required under either the Sequential or Concurrent Scenario. In the Sequential Scenario, this may mean that one project delivers compensation earlier than may have otherwise been required if it were a standalone project, which could be at risk e.g. prior to Final Investment Decision (FID).
- 34. Should DBS East or DBS West be delivered in isolation then it would be necessary to deliver only the scale of measures required to achieve adequate compensation in proportion to the impacts predicted from the given project (DBS East or DBS West). Compensation would be delivered on a scale appropriate to the nature and extent of the predicted impact from DBS East, or DBS West.
- 35. The scale of compensation to be delivered by the Projects will be confirmed within the DBSIMP and the project level Dogger Bank CIMP (should this be required in addition to the DBSIMP) once project level impacts have been determined by the SoS.



2 Legislation & Guidance

36. The HRA process covers those features designated under the European Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the 'Habitats Directive').

2.1 UK National Legislation

- 37. In England and Wales, the Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'), the Wildlife and Countryside Act 1981 and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (the Offshore Habitats Regulations) (which applies outside of 12 nautical miles) transposed the Habitats Directive into English and Welsh law.
- The Conservation of Habitats and Species (Amendment) (EU Exit)
 Regulations 2019 (the EU Exit Regulations) make changes to the Habitats
 Regulations so that they continue to work (are operable) following the UK's
 exit from the EU on 31st January 2020. While the basic legal framework for
 HRA is maintained, the EU Exit Regulations transfer functions previously
 undertaken by the European Commission (EC) to UK Ministers. Furthermore,
 where the Habitats Regulations continue to use the term 'European sites',
 those sites now form part of a UK NSN rather than the European 'Natura
 2000' site network.
- The Habitats Regulations place an obligation on 'competent authorities' to carry out an AA of any proposal likely to significantly affect a designated site, to seek advice from Natural England and not to approve an application that would have an adverse effect on a designated site unless certain conditions are met (where there are no alternative solutions, the plan or project can only proceed if there are Imperative Reasons of Over-riding Public Interest (IROPI) and if the necessary compensatory measures can be secured). The competent authority in the case of the Projects is the SoS for the DESNZ.

2.2 Guidance on Compensatory Measures

40. If the competent authority determines, after conducting an AA, that an AEol on a European site cannot be ruled out, and that there are no alternative solutions and IROPI, Regulation 36 of the Offshore Marine Habitats and Species Regulations 2017 requires that "the appropriate authority must secure that any necessary compensatory measures are taken to ensure that the overall coherence of Natura 2000 is protected."



- 41. EC (2019) explains that with regards to a plan or project, the compensatory measures defined to protect the overall coherence of Natura 2000 network should "refer to the site's conservation objectives and to the habitats and species negatively affected in comparable proportions in terms of number and status. At the same time the role played by the site concerned in relation to the bio-geographical distribution has to be replaced adequately".
- 42. Defra has recently released for consultation⁵, updated policy information for MPA assessments (Defra, 2024b). This document expands upon the best practice guidance for developing compensatory measures in relation to MPAs which was consulted upon in July 2021 (Defra, 2021a) and is intended to inform updated guidance which is anticipated to be published in late 2024.
- 43. Defra (2021a) introduced a hierarchical approach for determining appropriate compensatory measures within the marine environment. The central tenet of this approach is to prioritise compensatory measures that address the same impact at the same location. However, in cases where this is not feasible, measures supporting similar or comparable ecological functions at alternative locations could serve as adequate compensation and should be considered. This hierarchical approach offers flexibility, acknowledging that it may not always be practical to compensate for the same feature at risk within the impacted site. Defra (2024b) proposes refinements to the hierarchical approach outlined in Defra (2021a) but maintains this core principle.
- 44. Ideally, compensation should be functioning before the effect takes place, although it is recognised that this may not always be possible, as stated in the Defra (2021a): "A protected feature should not be impacted before compensation is secured. Ideally, measures should be in place, functioning and contributing to the network before development begins. Defra recognises that in some cases and for certain habitats and species this could take several years and therefore it may not be feasible for the compensatory measures to be complete before the impact takes place. Where this is not possible, it is important that necessary licences are in place, finances are secured, and realistic implementation plans have been agreed with the appropriate bodies to demonstrate that the compensatory measure is secured."

Unrestricted

⁵ Consultation ran from 9th February 2024 to 1st April 2024. The consultation document (Defra, 2024b) expressly states in section 3.1 that "the draft guidance set out below for consultation should not be relied upon by stakeholders, statutory bodies or decision makers during the planning process".



- 45. Compensatory measures for the sandbank feature of the DB SAC are presented in the following sections in line with this guidance and the hierarchy presented within it.
- 46. In addition, Natural England has developed a list of those aspects of compensatory measures that it considers need to be described in detail when developers are submitting or updating applications where impacts on MPA are anticipated. Whilst not exhaustive, it lists key areas where Natural England considers sufficient detail is needed to provide the SoS with appropriate confidence that compensatory measures can be secured. The list is summarised below:
 - What, where, when: clear and detailed statements regarding the location and design of the proposal.
 - Why and how: ecological evidence to demonstrate compensation for the impacted site feature is deliverable in the proposed locations.
 - Demonstrate that on ground construction deliverability is secured and not just the requirement to deliver in the DCO i.e. landowner agreement is in place.
 - Policy/legislative mechanism for delivering the compensation (where needed).
 - Agreed DCO/ DML conditions.
 - Clear aims and objectives of the compensation.
 - Mechanism for further commitments if the original compensation objectives are not met – i.e. adaptive management.
 - Clear governance proposals for the post-consent phase we do not consider simply proposing a steering group is sufficient.
 - Ensure development of compensatory measures is open and transparent as a matter of public interest, including how information on the compensation would be publicly available.
 - Timescales for implementation especially where compensation is part of a strategic project, including how timescales relate to the ecological impacts from the development.
 - Commitments to monitoring specified success criteria.
 - Proposals for ongoing 'sign off' procedure for implementing compensation measures throughout the lifetime of the project. Including implementing feedback loops from monitoring.
 - Continued annual management of the compensation area and ensure other factors are not hindering the success of the compensation e.g.

Unrestricted 005173994



- changes in habitat, increased disturbance as a result of subsequent plans/projects.
- 47. The Applicants have prepared this Project Level Compensation Plan in accordance with the Natural England checklist outlined above. This necessary information is presented in section 6. A summary of the status of the Applicants overall compensatory proposal for DB SAC against the Natural England checklist is provided in section 8.



3 The Development of Compensatory Measures

- 48. **Volume 6, DBSCP (application ref: 6.2.3.1)** outlines in detail The Crown Estate's recommended approach to compensating for the sandbank feature of the DB SAC as a result of the Round 4 Plan. The Applicants have sought to align this project level compensation plan with **Volume 6, DBSCP (application ref: 6.2.3.1)** as far as possible in accordance with their AfL conditions.
- 49. As such, the Applicants' approach to developing compensatory measures for sandbank features of DB SAC has been informed by participation in the Dogger Bank Steering Group to support the development of **Volume 6**, **DBSCP (application ref: 6.2.3.1)**. This included review and appraisal of the proposed Plan level compensatory measures.
- 50. In addition, the Applicants have undertaken the following activities to further inform the Projects approach:
 - Stakeholder engagement (see section 3.1 for further details):
 - At the project level via the Dogger Bank Expert Topic Group (ETG) to discuss the Applicants' proposed project level approach to compensation.
 - Through industry for a such as COWSC and the OWIC derogation sub-group to remain abreast of compensation measures being discussed and explored on a wider strategic basis (i.e. beyond the Round 4 Plan).
 - Ongoing review of other OWF DCO applications to determine whether there are any additional potential compensatory measures not identified and appraised by Volume 6, DBSCP (application ref: 6.2.3.1).
- 51. In light of the above and taking account of draft guidance on developing compensatory measures (Defra, 2021), the Applicants concluded that the options put forward by the Dogger Bank Steering Group within **Volume 6**, **DBSCP (application ref: 6.2.3.1)** are the most ecologically suitable and technically feasible options available at this time.
- 52. As such, the Applicants are proposing the designation of a new protected site or extension of an existing site to protect Annex I sandbank habitat outside of the existing MPA network as their principal compensatory measure to offset predicted impacts to the DB SAC sandbank feature. As outlined in section 1.3, this measure is an approved strategic compensation measure for offshore wind projects (Defra, 2024a) and is considered to be more than capable of fully compensating for the predicted impacts of the Projects.

Unrestricted 005173994



- 53. However, if necessary, and subject to Defra's agreement, this measure could be supplemented by the restriction of fishing activities. This secondary measure would only be relied upon if the Applicants' principal compensation measure failed to deliver the full compensation quantum required, which given its strategic nature (i.e. intended to deliver compensation for multiple OWF projects), is considered unlikely.
- The Applicants consider seagrass meadow restoration to be a potential resilience measure rather than a compensation measure. As such and in line with **Volume 6, DBSCP (application ref: 6.2.3.1)**, the Applicants are only proposing to progress this option in addition to the other measures outlined above as part of a wider package if and when necessary. It is therefore not currently being actively progressed as a project-led measure.
- 55. The most appropriate compensation package will be advanced by the Applicants in collaboration with Defra and other relevant stakeholders as part of an overarching strategic approach.

3.1 Stakeholder Engagement

- The Applicants are active participants of the Dogger Bank Steering Group and have regularly engaged with this stakeholder group during the Projects' pre-application phase to support the development of **Volume 6, DBSCP** (application ref: 6.2.3.1) and to inform this Project Level Dogger Bank Compensation Plan. Feedback from involvement in the Dogger Bank Steering Group as well as project level consultation has been used to inform the development of the Applicants' compensation proposal.
- 57. Section 2 of **Volume 6, DBSCP (application ref: 6.2.3.1)** sets out the engagement process for the Dogger Bank Steering Group and provides details of the 13 meetings held between 15th December 2022 and 10th April 2024. An agreement log for the Dogger Bank Steering Group is also presented in section 2 of **Volume 6, DBSCP (application ref: 6.2.3.1)**.
- 58. Additional stakeholder engagement through the Evidence Plan Process has been undertaken during the pre-application phase to further inform the Applicants' approach to compensation at the project level. The Dogger Bank ETG included representatives from Natural England, JNCC, MMO and the Wildlife Trust. Consultation with additional stakeholders including Defra and the Planning Inspectorate has also been undertaken. Pre-application engagement including key details is summarised in **Table 3-1** below. Further details of the consultation undertaken including minutes of the ETG meetings are provided in **Volume 5**, **Consultation Report (application ref: 5.1)**.

Unrestricted 005173994



Table 3-1 Summary of Pre-application Consultation Undertaken for the Projects.

Date	Consultee(s)	Activity	Details
11th April 2024	Defra	Strategic com- pensation meeting	Meeting to discuss the Applicants' proposals with respect to strategic delivery of compensation and how this should be referred to in the DCO application. During this meeting, Defra confirmed that DESNZ would be publishing guidance imminently for OWF developers on how strategic compensation can be referred to in planning applications in advance of any necessary statutory instruments coming into force. However, this advice was not available at the time of writing.
23 rd April 2024	Planning In- spectorate	Projects up- date meeting	Meeting to appraise the Planning Inspectorate of the intended approach to the derogation case for the Projects and the development of the associated compensatory measures.
10th April 2024	MMO, Natural England, JNCC and the Wildlife Trust	Dogger Bank ETG meeting	The purpose of this meeting was to set out for stakeholders how the Projects intended to build upon the outcomes of Volume 6 , DBSCP (application ref: 6.2.3.1) and to outline the level of information that would be provided as part of the DCO application, and the aspects that would be matured further post-submission. Specific information related to the Applicants' RIAA conclusions was also presented along with the Applicants' intended approach to compensation. Natural England provided feedback specifically in relation to compensation ratios and the site designation process.
23 rd April 2024	Natural Eng- land	Written feed- back following Dogger Bank ETG meeting	Letter from Natural England acknowledges the Projects' departure from the Plan level HRA conclusions with respect to impacts from abrasion/disturbance in Dogger Bank SAC. Natural England also advised that should the Projects predicted impacts be greater than those being compensated for at the Plan level, the project level plan will need to include how this shortfall will be compensated for. Further advice was also provided with respect to implementation and management plans.



59. As outlined in section 1.3.1, the Applicants are active members of the OWIC derogation sub-group which is working towards the delivery of strategic compensation. The OWIC derogation sub-group has supported the work of the COWSC group in developing strategic compensation measures for offshore wind. Further details about the role of the OWIC derogation subgroup are provided in section 1.3.1.



4 Dogger Bank SAC

4.1 Site Description

- 60. The Dogger Bank is an extensive sublittoral sandbank in the southern North Sea formed by glacial processes and submergence through sea-level rise. A large part of the southern area of the bank is covered by water seldom deeper than 20m below chart datum within the SAC, though depths extend to 35 40m in places (JNCC, 2024). The DB SAC covers an area of 12,331km² across the Dogger Bank and is located approximately 150km to the north-east of the Humber Estuary.
- 61. Sediments in the DB SAC range from fine sands containing shell fragments on sandbank crests to muddy sands at greater depths. The sandbank sediments support benthic invertebrate communities characterised by polychaetes, amphipods, small bivalves, hermit crabs, flatfish, and echinoderms including brittlestars. In addition to benthic invertebrates, sandeel (Ammodytidae) are an important prey resource within the DB SAC that support a variety of higher trophic species including fish, seabirds, and marine mammals.

4.1.1 Qualifying Features

- 62. The site is designated under article 4(4) of the Directive (92/43/EEC) for the following Annex I habitat:
 - Sandbanks which are slightly covered by sea water all the time.

4.1.2 Conservation Objectives

- 63. The conservation objectives set for the designated sandbank feature and sub-features of Dogger Bank are (JNCC, 2022a):
 - "For the feature to be in favourable condition thus ensuring site integrity in the long term and contribution to Favourable Conservation Status of Annex I Sandbanks which are slightly covered by seawater all the time."
- 64. This contribution would be achieved by maintaining or restoring, subject to natural change:
 - The extent and distribution of the qualifying habitat in the site.
 - The structure and function of the qualifying habitat in the site.
 - The supporting processes on which the qualifying habitat relies.





4.1.3 Condition Assessment

- 65. In the most recent condition assessment of the Dogger Bank SAC, it was determined that the Annex I sandbank feature is currently in unfavourable condition (JNCC, 2022a). A 'restore' objective has been advised for the following attributes:
 - The extent and distribution of the qualifying habitat in the site.
 - The structure and function of the qualifying habitat in the site.

4.1.3.1 Extent, Distribution and Structure

66. With regard to physical change (to another seabed/sediment type), the 'restore' objective for 'extent and distribution' in the Supplementary Advice on Conservation Objectives (SACO) for Dogger Bank SAC (JNCC, 2022b) states that:

"JNCC understands that the site continues to be subjected to activities that have resulted in a change to the extent and distribution of the feature within the site, noting bottom trawling no longer occurs within the site. Installation and/or removal of infrastructure will have a continuing effect on extent and distribution. As such, JNCC continues to advise a restore objective which is based on expert judgement; specifically, our understanding of the feature's sensitivity to pressures which can be exerted by ongoing activities i.e. offshore wind farms, cabling and oil and gas industry activities...

...Whilst JNCC does not consider it likely that the human activities taking place within the site have the potential to permanently impact on the large-scale topography of the sandbank feature, JNCC continues to advise that the extent of the sandbank feature in terms of its sedimentary composition and biological assemblages has been reduced and it continues to be reduced by ongoing activities."

- 67. The restore objective for 'structure' (JNCC, 2022b) states that:
 - "JNCC understands that the site continues to be subjected to some activities that have resulted in a change to the finer topography, sediment composition and distribution, and characteristic communities of the feature within the site, noting bottom trawling no longer occurs within the site.... As such, JNCC continues to advise a restore objective."
- 68. Further details concerning the physical and biological structure objectives for DB SAC are provided in the Applicants' **Volume 6, RIAA (application ref: 6.1)**.

4.1.3.2 Function

69. The SACO (JNCC, 2022b) lists three ecosystems services which "may be provided by the sandbank feature":

Unrestricted 005173994





- Nutrition the site provides a feeding ground where prey is made available for a variety of species of commercial importance.
- Bird and whale watching the site provides some supporting function (provision for wider marine bird and mammal populations.
- Climate regulation the range of sedimentary habitats and associated communities in the site perform ecological processes common to sandbanks such as deposition and burial of carbon in seabed sediments through bioturbation, living biomass and calcification of benthic organisms.
- 70. The SACO (JNCC, 2022b) goes on to state that:
 - "...A restore objective continues to be advised for function within the site based on impacts to the characterising communities and peat deposits from ongoing and historical activities i.e., wind farm, demersal fishing, aggregates, cabling and oil and gas industry activities."
- 71. In terms of practical advice, the SACO (JNCC, 2022b) states that:

 "Activities must look to minimise, as far as is practicable, disturbance and changes to the biological communities and the abiotic component of the Dogger Bank to conserve the functions that it provides to the wider marine environment."

4.2 Summary of Potential Impacts

72. The following sections provide a summary of the potential impacts of the Projects on the sandbank feature of the DB SAC as set out in the Applicants' Volume 6, RIAA (application ref: 6.1) and how this compares to that considered within Volume 6, DBSCP (application ref: 6.2.3.1). This information sets out the context for the compensatory measures proposed by the Applicants. The SoS will ultimately determine the extent of the predicted impacts of the Projects on the DB SAC sandbanks feature based on the conclusions of the AA.

4.2.1 Quantification of Effects

4.2.1.1 Projects Alone

73. The placement of infrastructure above the seabed will result in a physical change to the DB SAC sandbank feature, resulting in a reduction in extent and permanent sandbank habitat loss in the form of 'physical change to another seabed / sediment type'.



- 74. The extent of sandbank loss within DB SAC has been calculated by combining the predicted worst-case scenario footprints for turbine foundations and scour protection, offshore platform foundations and scour protection, array cable protection, inter-platform cable protection and cable and pipeline crossing protection within the site.
- 75. The worst-case area for habitat loss ('physical change to another seabed/sediment type') within the SAC as a result of the Projects is calculated as 2.25km². This represents 0.018% of the SAC's overall sandbank extent of 12,332km², and 0.018% of the medium to high potential habitat for sandeel within the SAC.
- As outlined in the Applicants' **Volume 6, RIAA (application ref: 6.1)**, the Applicants are committed to minimising the footprint of habitat loss through the selection of an offshore cable corridor that reduces impacts on designated sites, and the minimal use of scour and cable protection measures where possible. Therefore, the final area of permanent habitat loss within the SAC is likely to be lower than that estimated as a worst-case scenario.
- 77. The predicted worst-case areas for habitat loss under the isolated, concurrent and sequential development scenarios are presented in **Table 4-1.** For further information see section 6.3.2 of **Volume 6, RIAA** (application ref: 6.1).





Table 4-1 Worst Case Scenarios for Habitat Loss within the DB SAC

DBS East in isolation	DBS West in isolation	DBS West and DBS East concurrently and / or in sequence
Array areas & export cable corridor	Array areas & export cable corridor	Array areas, export cable corridor & inter-platform cable corridor
1.02km ²	0.97km ²	2.25km ²

- 78. Although the extent of habitat loss is minimal, the Dogger Bank SAC has a 'restore' objective (seen section 4.1.2) in relation to the extent of the sandbank feature in terms of its sedimentary composition and biological assemblages. With regard to the physical structure, the restore objective relates to finer-scale topography and sediment composition and distribution. With regard to biological structure, the restore objective relates to the key and influential species and characteristic communities present. Given that the restore objectives were in place from the designation of the DB SAC (i.e. before any wind farms were present) and that the objectives apply at the fine scale, any permanent footprint could be considered to hinder the restore objectives no matter how small (even in comparison to the historic fishing impacts which affected at least 70% of the site).
- 79. Therefore, an AEoI of the Dogger Bank SAC in relation to habitat loss from the Projects alone cannot be ruled out.

4.2.1.2 In Combination

80. Based on the publicly available information for other projects present (and planned) within the zone of influence for DBS, an area of approximately 11.71km² may be permanently lost within the Dogger Bank SAC6, representing 0.16% of the total SAC area. Permanent habitat loss as a result of the Projects would equate to an additional 0.02% of the total SAC area. For further information see section 6.4.2 of **Volume 6, RIAA** (application ref: 6.1).

Unrestricted

Page 33

005173994

⁶ Based on the consented footprints and not including Dogger Bank D for which figures are not available.



81. For the reasons outlined above with respect to the impacts of the Projects alone, a conclusion of AEoI of the Dogger Bank SAC in relation to physical change (to another seabed / sediment type) in combination with other schemes cannot be ruled out.



5 Compensation Quantum

- 82. **Volume 6, DBSCP (application ref: 6.2.3.1)** does not prescribe the amount of compensation required for the Projects but does outline the following process for determining this (see section 6 of **Volume 6, DBSCP** (application ref: **6.2.3.1**) for further information).
 - Step 1 Calculate the impact.
 - Step 2 Determine the compensation level. This is the amount of compensation measure required to offset the impacts that occur as a result of the Projects. This is expressed as a ratio of at least 1:1.
 - Step 3 Apply a compensation multiplier. A multiplier may be applied to the compensation level to provide confidence that any impacts to the sandbank feature are fully offset. This is also expressed as a ratio of at least 1:1.
- 83. Steps 1 and 2 are discussed in relation to the compensation level required for the Projects and the Round 4 Plan in sections 5.1 and 5.2 respectively, whilst step 3 is considered in section 5.3 below.

5.1 Projects Alone

- 84. For the primary compensation measure proposed by the Applicants which is the designation or extension of a protected site, area is considered to be the most suitable metric to calculate compensation quantum. The impact of habitat loss as a result of the Projects within the DB SAC boundary is estimated to be 2.25km². The Applicants acknowledge that the compensation level provided must at least offset the level of impact attributed to the Projects (2.25km²).
- 85. To determine the appropriate scale of compensation required to offset the impact of the Projects, **Volume 6**, **DBSCP (application ref: 6.2.3.1)** recommends that each of the compensation measures proposed should be appraised individually in light of the different delivery options potentially available and the level they occupy in the compensation hierarchy (Defra, 2024b). For example, the higher the position of a measure in the Defra compensation hierarchy, the closer to a 1:1 ratio (impact to compensation) the compensation level will be. Following this principle, the ratio applied to compensation delivered via a SAC extension to DB SAC would be lower than that applied to the designation of a protected site (or sites) in an alternative location. For measures such as seagrass meadow restoration, which is lower down on the compensation hierarchy, or where measures are considered to present an element of risk in delivery, compensation levels above 1:1 would be more appropriate.

Unrestricted 005173994



86. It is not possible to determine the exact compensation level required by the Projects at this stage as it has been demonstrated that this would be influenced by the exact nature and location of the proposed measures. In the case of the Applicants' primary compensation measure, designation or extension of a protected site, these details would need to be confirmed by Defra. Similarly, for restriction of fishing activities, such information would need to be provided by Defra and the MMO or relevant IFCA.

5.2 Round 4 Plan

- 87. As outlined in section 1.2, the Plan level HRA undertaken by The Crown Estate (The Crown Estate, 2022) concluded AEoI of the DB SAC could not be ruled out due to the predicted impact of habitat loss and direct physical damage on the sandbank feature from the Round 4 Plan and specifically the Projects, alone and in-combination with other plans and projects.
- 88. Whilst the Applicants have reached the same conclusion as the Plan level HRA with respect to predicted habitat loss, a conclusion of no AEoI of the Dogger Bank SAC in relation to direct physical damage (i.e. abrasion / disturbance of the seabed) from the Projects alone and in-combination has been reached within the Projects **Volume 6, RIAA (application ref: 6.1)**. Thus, there is a divergence in the outcome of the Plan level HRA (The Crown Estate, 2022) and the Projects' **Volume 6, RIAA (application ref: 6.1)** with respect to this pressure.
- 89. The scale of the predicted impact(s) for which AEoI cannot be ruled out determines, in part the level of compensation required. The divergence in conclusions for direct physical damage therefore has implications for the level of compensation required at the project level vs. what was predicted at the Plan level to offset the potential impacts of the Projects on the DB SAC sandbank feature.
- 90. **Table 5-1** presents the predicted area of habitat loss and direct damage associated with the Projects assessed within the Plan level HRA and the Applicants' **Volume 6**, **RIAA** (application ref: 6.1). The reduction in overall footprint is attributable to refinements to the maximum design envelope assessed at the project level and the removal of some of the worst-case infrastructure (**Volume 7**, **Chapter 5 Project Description** (application ref: **7.5.0**)). However, it is acknowledged that there is a small increase in the predicted extent of habitat loss associated with the Projects from that assessed at the Plan level.



Table 5-1 Predicted Worst-case Extent of Habitat Loss and Direct Damage Associated with the Projects Assessed within the Plan Level HRA (The Crown Estate, 2022) and the Applicants' RIAA (application ref: 6.1)

Impact	Predicted impact of the Projects assessed at the Plan level (km²)	Predicted impact of the projects assessed in the Applicants RIAA (km²)
Habitat loss	2.035	2.25
Physical damage	32.209	31.4
Total impact	34.244	33.65
Percentage of sandbanks feature within DB SAC	0.28%	0.27%

- 91. Given that the Applicants only consider there to be AEoI from habitat loss, the scale of the predicted impact requiring compensation at the project level is 2.25 km². Should the Secretary of State's AA for the Projects reach the same conclusion as the Applicants' **Volume 6, RIAA (application ref: 6.1)** with respect to habitat disturbance (i.e. no AEoI), then the overall scale of compensation required under the project level HRA (2.25km², 0.018% of the SAC's overall sandbank extent) would be less than that currently required under the Plan level HRA (34.224km²).
- 92. The project level assessment reflects updated project information, taking account of refinements to the maximum design envelope, and captures further assessment work and evidence gathering. For example, substantial evidence is presented in **Volume 6**, **RIAA** (application ref: 6.1) which indicates rapid recovery of sandy seabed types and substrates within Dogger Bank itself following physical disturbance. The assessment presented in **Volume 6**, **RIAA** (application ref: 6.1) is therefore considered to represent a detailed and robust appraisal of predicted impacts on the Dogger Bank SAC which builds upon the assessment presented within the Plan level HRA (The Crown Estate, 2022). The conclusion reached by the Applicants with respect to direct physical damage is also consistent with the Hornsea Three decision (BEIS, 2020) which only relates to permanent effects impeding restoration and is in line with the earlier Round 3 decisions (DECC, 2015).



93. The exact quantum of compensation required to be delivered by the Projects will be determined as part of the SoS consent decision. However, irrespective of the outcome of this decision, the Applicants' primary compensation measure, (designation or extension of a protected site) is considered more than capable of fully compensating for the predicted impacts of the Projects. Nonetheless, the Applicants consider it important that this SoS's decision seeks to avoid the likelihood of over-compensating for the predicted impacts of the Projects at the risk of eroding compensation opportunities for future projects.

5.3 Compensation Multiplier

- 94. As outlined in **Volume 6, DBSCP (application ref: 6.2.3.1)**, a compensation multiplier may be applied to provide additional confidence that compensatory measures can fully offset the predicted impact of a Plan or Project(s) and is intended to account for uncertainty in the deliverability and / or success of the proposed measures. However, there is very little ecological evidence supporting the application of ratios which are often derived qualitatively and fail to robustly take account of the inherent precaution already built into the impact assessments and the calculation of the level of compensation required.
- 95. Volume 6, DBSCP (application ref: 6.2.3.1) states that "a compensation multiplier of one (1.0), based on an area metric, may be appropriate for measures targeting Annex I sandbank habitat (site extension / designation and restriction of other activities) where there is high confidence in delivery. If confidence is reduced for any reason, then a multiplier of >1 may be required. For any compensation provided by measures delivering compensation through the restoration of other habitats a higher compensation multiplier would be justified. A value of two (2.0) is proposed." These ratios are presented in Volume 6, DBSCP (application ref: 6.2.3.1) and are not agreed upon by the Dogger Bank Steering Group.
- 96. Several details related to the proposed compensatory measures (including extent, location, etc.) are yet to be defined and would have a bearing on what would be considered an appropriate compensation multiplier. Furthermore, it is the Applicant's understanding that it will be Defra's responsibility to determine the overall scale of a protected site designation or extension and the Project's contribution to this.



97. The Applicants have sought to align this project level compensation plan with **Volume 6, DBSCP (application ref: 6.2.3.1)** as far as possible in accordance with their AfL conditions. However, in light of the information presented above, it is not considered appropriate to apply a compensation multiplier to the Projects' predicted impacts at this time until further information is made available from Defra with respect to the strategic delivery of compensation for offshore wind projects.



6 Compensatory Measures

6.1 Overview

- 98. **Table 6-1** provides an overview of the compensatory measures proposed by the Applicants for DB SAC and the delivery options available for each measure.
- 99. The Applicants' principal and secondary compensatory measures are options that can only be delivered by Defra in consultation with other relevant stakeholders and are therefore regarded as solely strategic measures.
- 100. Whilst subtidal seagrass restoration could in practice be delivered on a project-led basis, the Applicants propose that this measure would, if required, only be taken forward on a strategic or collaborative basis. This approach recognises the potentially enormous benefit that working in partnership with expert organisations, individuals and local suppliers would provide in seeking to deliver successful seagrass meadow restoration.
- 101. Further information regarding each of these measures is provided in the following sections.

Table 6-1 Summary of Compensatory Measures for Dogger Bank SAC and Associated Delivery Options Proposed by the Applicants

Measure	Strategically	Collaboratively	Project-led
Primary measure			
New protected site designa-	✓	*	×
tion or extension			
Supporting measure			
Restriction of fishing activi-	✓	×	×
ties			
Resilience measure			
Seagrass meadow restora-	✓	✓	×
tion			

6.2 New Protected Site Designation or Extension

6.2.1 Overview

102. This compensation measure involves the designation of a new protected site, or the extension of an existing site designated for Annex I sandbank features.



- 103. The implementation of this option will ensure that there is no overall loss of sandbank habitat within the UK NSN by providing legal protection to a newly designated area of Annex I sandbank. The protection of an additional area (or areas) of qualifying sandbank habitat and supporting features will be able to deliver compensation for the Projects by providing ecosystem functionality within areas that are presently unprotected.
- Evidence provided in Appendix E of Volume 6, DBSCP (Application ref: 104. 6.2.3.1) confirms the presence of multiple potentially suitable Annex I sandbank sites within UK waters with coverage greater than that anticipated to be required relative to the predicted area of habitat loss within DB SAC which would be associated with the Projects. Substantiation for the case of extending DB SAC is provided by the Applicants in Volume 6, Extension of the Dogger Bank SAC for HRA Derogation Compensation -Rationale and Evidence Base (application ref: 6.2.3.3). Furthermore, investigations undertaken by Outer Dowsing Offshore Wind (ODOW) in consultation with Natural England (ODOW, 2024) identified two SAC extension areas with ecological merit for Annex I sandbank compensation. The extension areas presented by ODOW are an extension to Inner Dowsing Race Bank and North Ridge SAC, and Haisborough, Hammond and Winterton SAC. The identification of suitable Annex I sandbank sites that are not presently subject to legal protection supports the feasibility of this compensation option.
- 105. The ecological merit of this measure is outlined in sections 3 and 5 of **Volume 6, DBSCP (application ref: 6.2.3.1)**. Furthermore, consultation (as evidenced in Appendix C of **Volume 6, DBSCP (application ref: 6.2.3.1)**) indicates that this option is supported by Defra and Natural England.
- 106. Several forms of protected site designation or extension have been explored by the Dogger Bank Steering Group. These include:
 - The extension of Dogger Bank SAC.
 - The designation of a new SAC or extension to an existing SAC (other than Dogger Bank SAC) for the protection of sandbank feature.
 - The designation of a new Marine Conservation Zone (MCZ) for the protection of a sandbank feature.
 - Amending SAC citation to protect or enhance associated habitat (e.g. troughs between sandbanks).
- 107. It is the Applicants' understanding that Defra are working to identify potential areas for designating new sites or extending existing sites, in collaboration with Natural England and JNCC.

Unrestricted 005173994



6.2.2 Scale

- 108. The Applicants understand that Defra intends to only deliver new protected site designation / extension once. When designated, such a site should account for impacts on sandbanks resulting from multiple offshore wind farm developments anticipating the need to use protected site designation as strategic compensation for impacts to Annex I sandbank. As such, it is crucial to ensure that the scale of compensation is appropriately allocated.
- 109. The allocation of a new designated site or extension should be sufficiently large to fully compensate for multiple offshore wind projects in the North Sea, including the Projects. The extent of the designated area must provide ecosystem functionality and network benefits for the UK NSN. As such, it is anticipated that an entire sandbank system and supporting habitats should be contained within such a site.
- 110. It is the Applicants' understanding that it will be Defra's responsibility to calculate the combined impact for multiple projects and determine the area for which strategic compensatory measures will be delivered. During a meeting chaired by the Applicants on 11th April 2024, Defra shared its intention to oversee the formation of an 'implementation group' to determine the scale of compensation to be delivered at a strategic level.
- 111. The worst-case impact footprint calculated at the project level for habitat loss is 2.25km². This area represents 0.018% of the Dogger Bank SAC's overall extent of 12,332km². The Applicants acknowledge that it may be appropriate to apply a compensation ratio or multiplier to the predicted impact to determine the overall quantum of compensation required. However, as outlined in section 5, it is not considered appropriate to propose a ratio at this time until further information is made available from Defra regarding the strategic delivery of new protected site designation / extensions.
- 112. Details of the scale of compensation proposed to be provided and how this relates to the consent decision made by the SoS will be developed post-consent in consultation with the relevant stakeholders and detailed within the Dogger Bank CIMP if this document is required in addition to the DBSIMP.



6.2.3 Delivery Mechanism

- 113. Strategic designation or extension of a protected site is expected to be delivered via a Strategic Compensation Fund such as the MRF. The designation of a new or extended site will follow the full legal process required for designation, including stakeholder and public consultation. As outlined in section 1.3, the MRF is expected to be operational in 2025 ahead of offshore construction for the Projects. It is anticipated that further details on the delivery of the MRF are expected from Defra and DESNZ imminently. This information will be provided to the Examining Authority in due course.
- 114. Following implementation, sandbank habitat within a new or extended protected site would be protected by law. This designation process will be led by Defra with support from Natural England and JNCC. This process is outside the control of the Applicants and the contribution of developers in providing information on areas of search (AoS), surveying and gathering evidence is yet to be confirmed by Defra. It is understood that Defra is presently considering SAC designations or extensions as a form of delivery, though the Applicant acknowledges that an MCZ designation could also deliver compensation effectively.
- 115. An outline of the offshore SAC designation process is illustrated in **Figure**6-1. Once an area is classified as a candidate SAC (cSAC), it is treated as if it is formally designated. As such, it can be considered that from this point, the site is protected. It is understood that Defra's view on delivery is that compensation is not considered to be fully implemented until management measures are in place for the designated site.



Figure 6-1 Outline of the Offshore SAC Designation Process (Based on JNCC (2015) and Defra (2021b)).

Area of Search / Proposal

- Draft documentation supporting recommendation of the area of search (AoS) as an SAC is prepared by the JNCC.
- •The JNCC provide an assessment to ministers on how a proposed SAC meets the criteria in the second stage of Annex III.
- •Inter-agency MPA Technical Group, JNCC MPA Subgroup and Chief Scientists Group provide comment.
- Area is formally recommended to Government, at which point it becomes a Draft SAC (dSAC).

Possible SAC / Review

- •Government review proposal and consider whether to proceed to consultation.
- •Once approved for public consultation, it becomes a Possible SAC (pSAC).

- In preparation for consultation, a consultation document is produced, and preconsultation meetings with stakeholders may be conducted.
- Natural England, JNCC or NRW publish consultation document & conduct public consultation.

Consultation

- •JNCC produce a report of responses to the consultation (usually within 12 weeks) and provide this to ministers.
- JNCC formally recommend revised pSAC proposals to Government.

Management

- •Conservation Objectives are set for the pSAC and Competent Authorities are advised on appropriate management actions.
- Management of licensed activities is undertaken through the existing licensing system.

Candidate SAC

- When the site is approved by ministers it progressed to become a Candidate SAC (cSAC).
- JNCC establish formal conservation objectives for the cSAC and advise the competent authorities.

SAC Designation

- •UK Government designates site as a Special Area of Conservation (SAC).
- Conservation measures are established and applied from the time of designation.
- Competent authorities are notified.

Unrestricted 005173994



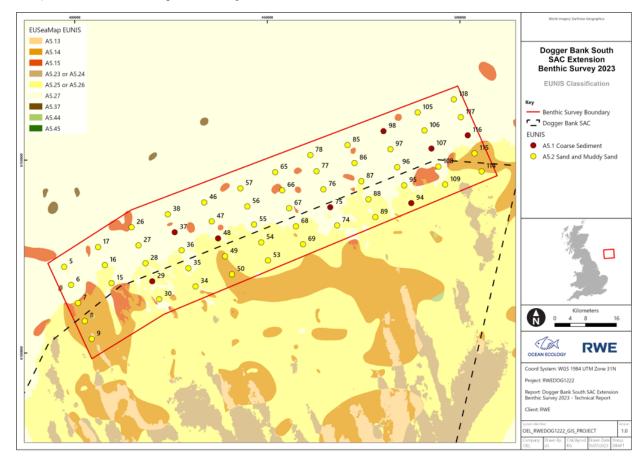
6.2.4 Location

- 116. It is understood that the identification of candidate areas for protected site designation or extension as a strategic measure will be overseen by Defra with support from Natural England and JNCC. However, the Applicants will continue to work with Defra on the development of this measure should support be required as part of the site selection process. Further information on the proposed location of the new protected site designation or extension will be provided post-consent and detailed within the Dogger Bank CIMP if this document is required in addition to the DBSIMP.
- 117. To ensure confidence in this compensation measure, NIRAS has undertaken the initial stages of a site selection exercise to provide a non-exhaustive list of potential AoS that would be suitable for a new protected site designation (section 7 and Appendix E of **Volume 6, DBSCP (application ref: 6.2.3.1)**). This has resulted in a long list of 19 areas that are considered to be potentially suitable candidates for site designation or extension from an ecological perspective.
- 118. Investigative work into a potential DB SAC extension area was also commissioned by the Applicants in March 2023. The benthic report for the potential DB SAC extension site is included as Appendix F in **Volume 6**, **DBSCP (application ref: 6.2.3.1)**. The benthic survey was carried out across an area of seabed adjacent to, and overlapping with, the northern boundary of DB SAC to characterise the habitat and communities present. The area within the maximum survey boundary is 3,197.6km².
- 119. The area surveyed by the Applicants is included as AoS 19 in Appendix E of **Volume 6, DBSCP (application ref: 6.2.3.1).** This site is advantageous as a candidate for SAC extension because it addresses the same impact at the same location, scoring highly on the Defra compensation hierarchy (Defra, 2021a).
- 120. The investigative survey commissioned by the Applicants involved the collection of seabed imagery and grab samples across 58 stations arranged in 12 transects across the potential DB SAC extension area (**Figure 6-2**). All samples were analysed for macrobenthos and sediment distribution and assessed using univariate and multivariate statistics to identify any significant differences and groupings of benthic communities.



121. Benthic communities within the study area were similar to those described in the north-eastern region of the DB SAC by Diesing et al. in 2009. The full rationale for extension of the DB SAC to the north is provided by the Applicants in Volume 6, Extension of the Dogger Bank SAC for HRA Derogation Compensation – Rationale and Evidence Base (application ref: 6.2.3.3). As is concluded in section 7.1 of Volume 6, DBSCP (application ref: 6.2.3.1), an extension of the SAC to the north may provide an equivalent area and comparable functioning of at least one of the benthic sandbank communities present within DB SAC.

Figure 6-2 Dogger Bank SAC Benthic Study Area Showing EUNIS Habitat Classification as Determined from Utilising the EUNIS Sediment Descriptions from Particle Size Distribution of Samples Collected During the Survey.





6.2.5 Timescales

- 122. As a strategic Defra-led measure, the timescales for implementation of a new site designation / extension are not within the Applicants' control. However, recognising the urgent need for strategic compensation to facilitate the delivery of 50GW of offshore wind, the Applicants' understanding based on engagement with Defra is that the ambition is for this measure to be implemented as soon as possible.
- Volume 6, DBSCP (application ref: 6.2.3.1) suggests that the process of 123. designating a new or extending an existing protected site may take up to seven years. However, further consultation with Defra suggests that timescales for implementation may be more aligned with those associated with the designation of Highly Protected Marine Protection Areas (HPMAs) (approximately two years), with some additional time allocated for consultation. Other recent OWF projects have assumed three years (Outer Dowsing Offshore Wind, 2024). It should be noted that, the designation of the first Tranche of MCZs was completed within a five-year window following the enactment of the Marine and Coastal Access Act 2009, with the first sites designated in November 2013 (JNCC, 2019). This initial process of designation also included the development of the MCZ Advice Protocol and the Ecological Network Guidance, processes that would not need to be repeated for a new MCZ designation or extension. The Applicants therefore consider designation of a new protected site or extension of an existing site to be possible within two to five years.
- 124. Draft Defra guidance (Defra, 2021a) states that compensation should ideally be in place, functioning and contributing to the coherence of the UK NSN prior to any impact occurring. However, this guidance also acknowledges that in some cases this may not be feasible.
- 125. In accordance with the National Planning Policy Framework which relates to onshore designations (Department for Levelling Up, Housing and Communities, 2023) and advice from the Dogger Bank ETG, a new site or extension can be considered secured when it is given 'candidate' or 'recommended' status in the case of SACs (cSAC) and MCZs (rMCZs), respectively. Furthermore, the measure can be considered to have been successfully implemented when the new site or extension is approved, and the necessary management measures are in place.



- 126. Based on the indicative programme information presented in **Volume 7 Chapter 5 Project Description (application ref: 7.5)**, the earliest installation of seabed infrastructure (and the impact of habitat loss) is likely to occur in Q2 2027. Therefore, depending on implementation timescales, the designation of a new protected site may occur either prior to or following the commencement of construction for the Projects.
- 127. An extension to DB SAC or another MPA designated for Annex I sandbank may therefore be preferable to a new site designation as an extension could potentially be progressed on a shorter timescale. As outlined in section 6.2.4 above, Appendix F of Volume 6, DBSCP (application ref: 6.2.3.1) and in Volume 6, Extension of the Dogger Bank SAC for HRA Derogation Compensation Rationale and Evidence Base (application ref: 6.2.3.3), the Applicants have provided evidence to demonstrate that an extension to DB SAC could be a potentially feasible option to compensate for predicted impacts to Annex I sandbank and supporting features as these are considered to extend beyond the existing site boundary. However, it is acknowledged that the responsibility for identifying suitable sites, including extension areas, lies with Defra in collaboration with Natural England and the JNCC.
- 128. Given that site designation or extension has been approved as a strategic compensation measure by the SoS for Defra and is an established process for marine habitat conservation should give confidence that this measure can be secured. Any potential time lag between the impact occurring and the implementation of compensation could be addressed by increasing the overall scale of compensation.

6.2.6 Monitoring and Adaptive Management

- 129. Following successful site designation, the new or extended site will require monitoring to demonstrate that it is functioning as expected and that management measures are delivering compensation. This will likely require a baseline survey prior to site designation, possibly followed by monitoring surveys if necessary to monitor the status of the site.
- 130. The process for measuring the success of a new site designation or the extension of an existing site will be determined by Defra. Monitoring requirements are likely to be the responsibility of Natural England or JNCC as part of statutory condition assessment obligations.

Unrestricted 005173994



- 131. It remains uncertain how monitoring for this strategic compensation measure will be funded, whether by OWF developers directly or through access to an appropriate Strategic Compensation Fund such as the MRF. As outlined in section 10 of **Volume 6, DBSCP (application ref: 6.2.3.1)**, the designation or extension of a protected site is expected to compensate for multiple projects. It is the Applicants understanding that COWSC will be responsible for determining how costs will be apportioned across multiple OWF projects. The Applicants anticipate that funding arrangements will be established by DESNZ in collaboration with Defra and COWSC during the development of an appropriate Strategic Compensation Fund (e.g. MRF). Details of funding arrangements will be provided in the Dogger Bank CIMP if required in addition to the DBSIMP.
- 132. The need for adaptive management will be considered once the Project's construction period is complete and the final footprint for habitat loss is confirmed. Adaptive management will be applied as a tool to address any unexpected shortfalls of this compensation measure.
- 133. Adaptive management thresholds will depend on the final compensation solution and will be triggered if necessary, following the appraisal of monitoring data. Measures that have been discussed with the Dogger Bank Steering Group (outlined in section 11 of **Volume 6, DBSCP (application ref: 6.2.3.1)**) include:
 - Extending measure(s) to different areas, identified through the site selection process.
 - Identifying pressures leading to failure and implementing measures to reduce those pressures.
 - Use MRF or a similar strategic route, if available.
- 134. Further details surrounding adaptive management, thresholds for adaptive management application and timescales are provided in **Volume 6, DBSCP** (application ref: 6.2.3.1) and will be outlined in the Dogger Bank CIMP should this document be required.
- 135. As a general point, the Applicants intend to explore with Defra, JNCC and Natural England how the concept of adaptive management would sit with the normal management measures and reviews which are conducted under existing legislative arrangements for the UK NSN. It is the Applicants' assumption that the existing legislative regime would operate in the normal way as the default position, irrespective of whether the purpose of new protected site designation / extension is for conservation or compensation. As such, further clarity is required as to the precise role and justification of any additional measures characterised as adaptive management.

Unrestricted 005173994



6.2.7 Outline Design Details

- 136. Design details for a new site designation or extension are beyond the remit for the Applicants and will be finalised by Defra. Such details to be determined will include:
 - Whether the designation will be an extension of an existing site or the establishment of a new site.
 - Whether multiple sites covering numerous Annex I sandbanks, or a single site covering a single large area of Annex I sandbank habitat will be designated.
 - The size of a new designated site or extension.
 - The location of a new designated site or extension.
 - The management measures for the designated site (in consultation with other affected industries and stakeholders).
 - The conservation objectives and condition assessment for the site.

6.2.8 Potential Impacts from Implementation

137. Defra will oversee the designation of a new site, or a site extension and will be responsible for appraising any potential impacts related to the implementation of this strategic measure.

6.3 Restriction of Fishing Activity

- 138. Using byelaws to reduce fishing activities that damage the seabed is a potential compensation measure that is currently being explored by COWSC. As outlined in section 3.3 of Volume 6, DBSCP (application ref: 6.2.3.1), the Dogger Bank Steering Group determined that the restriction of fishing activities shows potential to compensate for benthic losses and damage, though evidence gaps remain as to the effectiveness of this option.
- 139. The Applicants consider the restriction of fishing activity to be a supporting compensatory measure that would only be incorporated if needed to provide increased confidence in the overall success of the wider compensation package. This measure would therefore only be progressed should the scale of compensation from new site designation or extension fall short of 100% of the required compensation.

Unrestricted 005173994



- 140. Given the existing measures for the restriction of fishing using bottom towed equipment within DB SAC, potentially suitable sites for further cessation of fishing activities would need to be delivered in another location (section 7.3 of **Volume 6, DBSCP (application ref: 6.2.3.1)**). If progressed, this measure would need to be applied in an MPA for which Annex I sandbanks are a protected feature and for which relevant fishing byelaws have not already been adopted. Such a site would need to be identified by Defra with support from the relevant stakeholders.
- 141. The restriction of fishing as a strategic compensation measure has not been approved by the Defra SoS. If approval for this option is granted, the MMO would be responsible for producing byelaws outside of the 6nm coastal limit, while within the 6nm limit, byelaws will be produced by the relevant IFCA with support from the MMO.
- 142. Should the management of fishing activities be progressed as a supporting measure, then this would need to be monitored to ensure compliance through a standard government-led process. The process for measuring the success of the restriction of activities will be determined by Defra in conjunction with the MMO.

6.4 Seagrass Meadow Restoration

- 143. As outlined in section 3.3 of **Volume 6, DBSCP (application ref: 6.2.3.1)**, seagrass meadows can occur on subtidal sandbanks and therefore, the restoration of seagrass on sandbank habitat has the potential to support the overall structure and function of sandbanks within the UK NSN. It is acknowledged that seagrass restoration as a compensation measure for habitat loss within the DB SAC should be limited to subtidal seagrass only.
- 144. This option for compensation scores lower on the compensation hierarchy compared to other measures as it addresses a comparable ecological function (rather than the same impact) in a different location. Due to uncertainty surrounding the ecological suitability of this measure coupled with concerns about the deliverability of seagrass restoration, this option is regarded by the Applicants as a resilience measure only.
- 145. Though knowledge of seagrass restoration is growing, uncertainty remains concerning the viability of restoring seagrass including the scale of habitat that can be restored, whether it can become self-sustaining, and over what timescales restoration can occur (section 9.4 of **Volume 6, DBSCP** (application ref: 6.2.3.1)).



- 146. Seagrass meadow restoration could be delivered either by the Applicants strategically or collaboratively, either as a standalone compensation project for OWF projects, or through existing restoration initiatives with funding support from the Applicants. Given the lack of preference or viability for this measure, the delivery mechanism is not considered in further detail at this time.
- 147. In the event of the preferred measures not delivering the expected compensation and this option being progressed as a resilience measure, 'area' may not be the most suitable metric for calculating compensation. Rather, alternative metrics such as biodiversity indicators, biomass or carbon sequestration may be used. The use of alternative metrics to determine scale would need to be examined in more detail should this measure need to be considered further.
- 148. A list of potential locations for seagrass restoration is provided in **Volume 6**, **DBSCP (application ref: 6.2.3.1)** (section 7.3). There were no sites identified where subtidal seagrass occurs on the east coast of England and it is not yet understood whether there are historical records of seagrass meadows located in the North Sea. Should it not be possible to identify a suitable site for subtidal seagrass restoration within the same region as the Projects, this measure may be limited to sites outside of the southern North Sea.





7 Funding

- 149. A total cost estimate for delivering compensation for the Projects is presented within **Volume 4**, **Funding Statement (application ref: 4.4)**. This estimate includes the Applicants' contribution to the development and operation of a new protected site designation / extension to compensate for predicted impacts on the DB SAC sandbank feature over the lifetime of the Projects. It does not include restrictions on activities such as fishing as there remains uncertainty about whether this option is available as compensation for offshore wind projects.
- 150. This total cost cannot be broken down to provide details of individual compensation measures for commercial reasons as the majority of the compensatory measures proposed by the Applicants will be delivered strategically or collaboratively (in line with the recommendations of The Crown Estate's Plan level HRA). There remain several uncertainties around the details of the collaborative and strategic delivery mechanism (e.g. resource requirements, how many OWF projects may be voluntarily seeking to contribute to the MRF to access strategic compensation for benthic habitats and how costs may be apportioned between projects) to provide exact figures. It is, however, anticipated that these will all fall within the overall budget provided.
- 151. Seagrass meadow restoration is proposed as a resilience measure to be delivered alongside one or both of the proposed compensation measures if necessary. Should this option be required, the Applicants would seek to deliver this measure either collaboratively or strategically with other project partners. It is not a measure that is being actively progressed by the Applicants as a project-led measure.
- 152. Considering this and the uncertainty regarding the details and exact timings of a functioning collaborative or strategic delivery mechanism for seagrass meadow restoration, costs for this option have not been included in the compensation cost estimate outlined in **Volume 4**, **Funding Statement** (application ref: 4.4).



8 Summary

153. **Table 8-8-1** provides a summary of the Applicants' primary compensation measure for Dogger Bank (protected site designation or extension). The table highlights pertinent details that are provided within this application document and aspects that will be developed further following DCO submission.



Table 8-8-1 Summary of the Applicants' Compensation Proposal for Dogger Bank in Relation to Natural England's Checklist

NE Compensation Criteria	New site designation or extension (primary compensation measure)
a) What, where, when: clear and detailed statements regarding the location and design of the proposal.	What The designation or extension of a protected site for Annex I sandbank feature. Several forms of site designation or extension could be explored by Defra:
	The extension of Dogger Bank SAC;
	The designation of a new SAC or extension to an existing SAC (other than Dogger Bank SAC) for the protection of sandbank feature;
	The designation of a new MCZ for the protection of a sandbank feature; or
	Amending SAC citation to protect or enhance associated habitat (e.g. troughs between sandbanks).
	Where The location of the new protected site or extension will be determined by Defra in consultation with Natural England and JNCC.
	When The timescales for new site designation are outside of the Applicants' control. The process will be overseen by Defra and is anticipated to take between two and five years (in line with the Tranche 1 MCZ designations and SNCB guidance provided in the Dogger Bank ETG meeting on 10 th April 2024).

Unrestricted 005173994



NE Compensation Criteria	New site designation or extension (primary compensation measure)
b) Why and how: ecological evidence to demonstrate compensation for the impacted site feature is deliverable in the proposed locations.	In February 2024, the SoS approved designation and / or extension of MPAs for inclusion within the LoSCM and strategic delivery as compensation for offshore wind projects (Defra, 2024a). The Dogger Bank Steering Group and Defra have confirmed that this strategic measure is the preferred option according to the Defra (2021a and 2024b) compensation hierarchy. This option has ecological merit and will maintain the coherence of sandbank habitat across the UK NSN. Site selection and designation will be undertaken by Defra with support from Natural England and JNCC.
c) Policy/legislative mechanism for delivering the compensation	The mechanism is outlined in Volume 6 , Habitats Regulation Derogation: Provision of Evidence (application ref: 6.2) . Strategic site designation or extension is expected to be delivered via a Strategic Compensation Fund such as the MRF and will follow the full legal process required for designation, including stakeholder and public consultation.
d) Agreed DCO/DML conditions	A draft schedule for DB SAC compensation is provided within Volume 3, Draft DCO (application ref: 3.1) . The condition wording proposed is still to be agreed upon with the relevant statutory stakeholders.
e) Clear aims & objectives & links to the conservation objectives of the site or feature.	The Applicants aim to compensate for the permanent loss of Annex I sandbank habitat within the DB SAC as a result of the placement of seabed infrastructure associated with the development of the Projects. This aligns with the conservation objective for DB SAC to maintain or restore the extent, structure, function, and supporting processes on which the qualifying habitat (sandbanks which are slightly covered by sea water all the time) relies.

Unrestricted 005173994



NE Compensation Criteria	New site designation or extension (primary compensation measure)
f) Mechanism for further commitments if the original compensation objectives are not met - i.e., adaptive manage- ment.	Volume 6, DBSCP (application ref: 6.2.3.1) outlines potential supporting management measures. Should the primary compensation measure of new site designation or extension not provide 100% of the required compensation, restriction of fishing activities will be implemented if available as a supporting measure. Though seagrass meadow restoration is not considered a compensation measure, this option may also be relied upon as a resilience measure to help support habitats associated with Annex I sandbank should it be deemed necessary. Further details regarding adaptive management will be provided in the Dogger Bank CIMP.
g) Clear governance proposal for the post-consent phase (e.g. ToR agreed)	The Applicants' DB SAC compensation proposal aligns closely with the information provided in Volume 6 , DBSCP (application ref: 6.2.3.1) which was developed in accordance with the ToR for the Dogger Bank Steering Group. Under these ToR, the Dogger Bank Steering Group will continue to exist under all obligations have been discharged, including all post-consent requirements. It is currently unclear whether a separate governance process will be required for the delivery of compensation in accordance with the project level derogation case (in addition to that required at the Plan level). Nonetheless a separate governance process has been outlined with respect to this project level plan subject to the SoS confirming whether this is required. Further details will be agreed with the relevant stakeholders and provided post-consent in the DBSIMP and project level Dogger Bank CIMP (if required).
h) Ensure development of compensatory measures is open and transparent	The Applicants have actively participated in the Dogger Bank Steering Group during the pre-application phase to support the development of Volume 6, DBSCP (application ref: 6.2.3.1). This engagement has informed the Applicants' ap-

Unrestricted 005173994



NE Compensation Criteria	New site designation or extension (primary compensation measure)
	proach to compensation at the project level and has been supplemented with additional engagement with the Dogger Bank ETG, Defra, Natural England and The Planning Inspectorate. Further details of the Applicants pre-application engagement are provided in section 3.1 and Volume 5 , Consultation Report (application ref: 5.1) . Stakeholder engagement will continue post-application to support further development of the designation of a new site or site extension.
i) Timescales for implementation & how quickly the measures will contribute to the network	The timescales for new site designation or extension are not within the Applicants control. The process will be overseen by Defra and is anticipated to take between two and five years.
j) Commitments to ongoing monitoring of measure performance against specified success criteria.	The process for measuring the success of a new site designation or the extension of an existing site will be determined by Defra. Monitoring requirements are likely to be the responsibility of Natural England or JNCC as part of statutory condition assessment obligations and it is unclear what role developers will play in delivering monitoring. If required, the Dogger Bank CIMP will be developed in consultation with the Dogger Bank Steering Group and will outline the monitoring plan.



References

Defra (2021a) Best Practice Guidance for Developing Compensatory Measures in Relation to Marine Protected Areas.

Defra (2021b) Changes to the Habitats Regulations 2017. Available at: https://www.gov.uk/government/publications/changes-to-the-habitats-regulations-2017/changes-to-the-habitats-regulations-2017.

Defra (2024a) Letter to the Offshore Wind Industry Council. Approval of strategic compensation measures for offshore wind developments. 2 pp.

Defra (2024b) Consultation on policies to inform updated guidance for Marine Protected Area (MPA) Assessments. Available at: www.gov.uk/government/publications.

DESNZ (2023) National Policy Statement for Renewable Energy Infrastructure (EN-3).

Diesing, M., Ware, S., Foster-Smith, B., Stewart, H., Long D., Vanstaen K., Forster R, and Morando, A. (2009) Understanding the marine environment: seabed habitat investigations of the Dogger Bank offshore draft SAC.

EC (2019) Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Brussels, 25.1.2019 2019/C 33/1 62 pp.

HM Government (2022) British Energy Security Strategy (BESS) policy paper. Available at: https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy.

JNCC (2015) Offshore SAC Designation Process. Open Data. Available at: https://data.jncc.gov.uk/data/5dc040a7-cf45-49d9-986c-f272a2ec9d91/Offshore-SAC-Designation-Process-web.pdf.

JNCC (2019) Marine Conservation Zones. <u>Marine Conservation Zones | JNCC - Adviser to Government on Nature Conservation</u>.

JNCC (2022a) Conservation objectives for Dogger Bank Special Area of Conservation. Available at: https://data.jncc.gov.uk/data/26659f8d-271e-403d-8a6b-300defcabcb1/dogger-bank-conservation-objectives-v2.pdf.

JNCC (2022b) Supplementary Advice on Conservation Objectives for Dogger Bank Special Area of Conservation. Available at: https://data.jncc.gov.uk/data/26659f8d-271e-403d-8a6b-300defcabcb1/dogger-bank-saco-v2.pdf.

JNCC (2024) Dogger Bank MPA site summary page. Available at: https://jncc.gov.uk/our-work/dogger-bank-mpa/#summary.

Outer Dowsing Offshore Wind (2024) Habitats Regulations Assessment. Without Prejudice Benthic Compensation Evidence Base and Roadmap. Document 7.6.3.

OWIC (2024) Consenting and Environment by RenewableUK. https://www.owic.org.uk/our-work/pathways-to-growth.

Unrestricted 005173994



The Crown Estate (2022) Offshore Wind Leasing Round 4 Plan Level HRA Report to Inform Appropriate Assessment. 211 pp.

The Crown Estate (2024) Offshore Wind Leasing Round Four - Dogger Bank Strategic Compensation Plan. Report no: 43569_NIRAS_REP_007_v2.1.

Unrestricted 005173994

RWE Renewables UK Dogger Bank South (West) Limited

RWE Renewables UK Dogger Bank South (East) Limited

Windmill Hill Business Park Whitehill Way Swindon Wiltshire, SN5 6PB