



codling
wind park



Natura Impact Statement (NIS) Addendum

Part 3

SPA In-combination
Assessment



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Abbreviations

Abbreviation	Term in full
AESI	Adverse Effects on Site Integrity
CWP	Codling Wind Park
CWPE	Codling Wind Park Extension
CWPL	Codling Wind Park Limited
CWP OTI	CWP Onshore transmission infrastructure
EC	European Commission
ECC	Export Cable Corridor
EclA	Ecological Impact Assessment
EDF R	Électricité de France Renewables
EIA	Environmental Impact Assessment
ESB	Electricity Supply Board
ESBN	ESB Networks
EU	European Union
FOS	Fred. Olsen Seawind
GW	Gigawatt
INNS	Invasive non-native species
kV	Kilovolt
LSE	Likely Significant Effects
MHWM	Mean high water mark
MW	megawatts
MHWS	Mean high water springs
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Services
OWF	Offshore wind farm
OSS	Offshore substation structure
SAC	Special Area of Conservation
SCI	Special Conservation Interest
SPA	Special Protection Area
SSC	Suspended Sediment Concentration
TJB	Transition joint bay
TTS	Temporary Threshold Shift

WEI	Wind Energy Ireland
ZoI	Zone of influence

Definitions

Glossary	Meaning
the Applicant	The developer, Codling Wind Park Limited (CWPL).
array site	The red line boundary area within which the wind turbine generators (WTGs), inter-array cables (IACs) and the Offshore Substation Structures (OSSs) are proposed.
Alternative Alignment for the purposes of Modelling (AAM)	Locational flexibility of permanent and temporary infrastructure is described as a AAM from a specific point or alignment.
Codling Wind Park (CWP) Project	The proposed development as a whole is referred to as the Codling Wind Park (CWP) Project, comprising of the offshore infrastructure, the onshore infrastructure and any associated temporary works.
Codling Wind Park Limited (CWPL)	A joint venture between Fred. Olsen Seawind (FOS) and Électricité de France (EDF) Renewables, established to develop the CWP Project.
ESB Networks (ESBN)	Owner of the electricity distribution system in the Republic of Ireland, responsible for carrying out maintenance, repairs and construction on the grid.
environmental impact assessment (EIA)	A systematic means of assessing the likely significant effects of a proposed project, undertaken in accordance with the EIA Directive and the relevant Irish legislation.
Environmental Impact Assessment Report (EIAR)	The report prepared by the Applicant to describe the findings of the EIA for the CWP Project.
export cables	The cables, both onshore and offshore, that connect the offshore substations with the onshore substation.
generating station	Comprising the wind turbine generators (WTGs) and inter-array cables (IACs).
interconnector cables	The subsea electricity cables between OSSs
landfall	The point at which the offshore export cables are brought onshore and connected to the onshore export cables via the transition joint bays (TJB).
Metocean	Meteorological and oceanographic data (for example metocean data or metocean conditions).
offshore development area	The entire footprint of the offshore infrastructure and associated temporary works that will form the offshore boundary for the development consent application.
offshore export cables	The cables which transport electricity generated by the WTGs from the offshore substations (OSSs) to the landfall.
offshore export cable corridor (OECC)	The area between the array site and the landfall, within which the offshore export cables cable will be installed along with cable protection and other temporary works for construction.
offshore infrastructure	The offshore infrastructure, comprising of the WTGs, IACs, OSSs, Interconnector cables, offshore export cables and other associated infrastructure such as cable and scour protection.

offshore substation structure (OSS)	A fixed structure located within the array site, containing electrical equipment to aggregate the power from the wind turbine generators and convert it into a more suitable form for export to shore.
onshore export cables	The cables which transport electricity generated by the WTGs from the TJBs at the landfall to the onshore substation.
operation and maintenance (O&M) activities	Activities (e.g., monitoring, inspections, reactive repairs, planned maintenance) undertaken during the O&M phase of the CWP Project.
O&M phase	This is the period of time during which the CWP project will be operated and maintained.
operation and maintenance base (OMB)	The operational and maintenance facilities to support the CWP Project, including buildings/ / warehouses, laydown areas, cranes, parking and marine works such as pontoons for maintenance vessels.
parameters	Set of parameters by which the CWP Project is defined and which are used to form the basis of assessments.
Phase 1 Project	On 19 May 2020, the Government announced that seven offshore renewable energy projects had been designated as Relevant Projects, namely Oriel Wind Park, Arklow Bank II, Bray Bank, Kish Bank, North Irish Sea Array, Codling Wind Park and Skerd Rocks. These projects are now known as Phase 1 Projects.
planning application boundary	The area subject to the application for development consent, including all permanent and temporary works for the CWP Project.
Special Conservation Interest features	Species which are designated as having Conservation Objectives under Irish SPAs.
Special conservation interest conservation objectives	SPA and SCI-specific Objectives against which AESI is assessed for each potential impact of the CWP Project.
Strategic Infrastructure Development	Strategic Infrastructure Development includes development which would: - contribute significantly to meeting any of the objectives of the National Planning Framework, or - contribute significantly to meeting any regional spatial and economic strategy for an area, or - have a significant effect on the area of more than one planning authority.
transition joint bay (TJB)	This is required as part of the OTI and is located at the landfall. It is an underground bay housing a joint which connects the offshore and onshore export cables.
wind turbine generator	All the components of a wind turbine, including the tower, nacelle, and rotor.
zone of influence (Zol)	Spatial extent of potential impacts resulting from the project.

Note to readers: The following presents a re-submission of the in-combination assessment for SPAs with regard to the request for additional information (FIR) received. As information relating to the impact contributions of other projects considered within in-combination assessments (most notably other Irish east coast Phase 1 projects) has been published since the preparation of the in-combination assessment for CWP's original application, the provisional impact estimates used within that original in-combination assessment have now been replaced with published impact values from the applications of other Irish east coast Phase 1 projects (and other, more distant projects where impact estimates have been altered, or become available). As such, this addendum constitutes a full update to the in-combination assessment for SPAs, replacing Volume 6 Part 2 of the NIS and should be read as a stand alone document. Cross references within this document to the project alone assessment may refer to either text from the NIS or the NIS Addendum (Part 1) so it may benefit the reader having both these documents open in conjunction with this one for reference. This has been clarified throughout this re-submission of the in-combination assessment where appropriate.

1 INTRODUCTION

1. This document, **NIS Addendum (Part 3)** provides the scientific examination of the CWP Project and examines the in-combination impacts screened into the analysis of project-only assessment of the implications for Special Protection Areas (**Volume 5 Part 1 and Part 2** of the NIS and the **NIS Addendum (Part 1)**).
2. The NIS is laid out as follows:
 - **Volume 1** contains the introduction to the CWP Project, document structure and a summary of the conclusions of the other volumes.
 - **Volume 2** contains the introductory sections of the document, detailing the relevant legislation, assessment methodology, and the project description.
 - **Volume 3** provides the report to inform AA Screening.
 - **Volume 4** provides the scientific examination of the CWP Project on relevant European sites (Special Area of Conservation (SACs)), to identify and characterise any possible implications of the CWP Project on the integrity of European sites.
 - **Volume 5 (Part 1 and Part 2)** provides the scientific examination of the CWP Project on relevant European sites (Special Protection Areas (SPAs)), to identify and characterise any possible implications of the CWP Project on the integrity of European sites.
 - **Volume 6 - Part 1** provides the scientific examination of the CWP Project and examines the in-combination impacts screened into the analysis of project-only SAC assessment (**Volume 4**)
 - **Volume 6 - Part 2** provides the scientific examination of the CWP Project and examines the in-combination impacts screened into the analysis of project-only SPA assessment (**Volume 5**)
3. This document is structured to give a scientific consideration of potential impacts each 'screened in' European designated site, drawing on the conclusions presented in **Volume 3** of the NIS. Each section in this volume initially provides a summary of the conclusions for the site, through reference to the Conservation Objectives and potential impact pathways, before then providing a detailed QI by QI impact assessment. **Section 3** presents this detailed examination and analysis in a site by site structure to allow the reader to understand the implications for each site.

2 APPROACH TO IN-COMBINATION ASSESSMENT

4. Step 1 of the in-combination assessment process involved establishing the long list of other development with the potential to result in in-combination effects with the CWP Project. This included all projects that result in a comparative effect that is not intrinsically considered as part of the existing environment and is not limited to other Offshore Wind Farm (OWF) projects.
5. The long list of other plans and programmes (presented in **Appendix 1** of the **Cumulative Effects Assessment (CEA) Report (Part 1)** the EIAR) was then subject to additional screening criteria to establish a short list of other development for each European Site. Each plan or project considered alongside the CWP Project has been assigned to a tier, reflecting their current status in the planning and development process.
6. The purpose of the tiered approach is to give consideration to the level of certainty that a plan or project will be built and therefore contribute to in-combination effects. For example, there can be greater certainty that other developments approved and under construction are likely to contribute to in-combination, whereas other developments at early phases of development (i.e., pre-planning) are less likely to proceed to construction and contribute in-combination.
7. The proposed tiering structure is presented in **Table 2-1** and described in more detail in **CEA Report (Part 1)** of the EIAR. The tiers are listed in descending order of level of detail likely to be available (and, correspondingly, certainty of effects arising).

Table 2-1 Tiered structure for other plans and programmes considered (modified from PINS Advice Note 17 (PINS, 2019))

Tier	Description
Tier 1	- Constructed projects with a continuing effect* - Under construction. - Permitted applications, but not yet implemented. - Offshore applications submitted six months or more in advance of the CWP Project submission of further information, but not yet determined. This includes the other Phase 1 Projects; and - Onshore applications submitted six months or more in advance of the CWP Project submission of further information, but not yet determined. This includes the DPC 3FM Project.
Tier 2	- Offshore projects in receipt of a Maritime Area Consent (MAC); - Offshore projects in the public domain where an EIA scoping report has been issued; and - Onshore projects in the public domain where an EIA scoping report has been issued.
Tier 3	- Projects in the public domain where an EIA scoping report has not been issued; and - Projects that have been identified in the relevant development plans and programmes, which set the framework for future development consents / approvals, where such development is reasonably likely to come forward.

*specifically constructed projects that do not form part of the baseline receiving environment

3 EXAMINATION AND ANALYSIS OF POTENTIAL IMPACTS ON EUROPEAN SITES – CWP PROJECT IN-COMBINATION WITH OTHER PLANS AND PROJECTS

8. For the project screening process, in order to determine which other projects to include for in-combination assessment, a Zone of Influence (Zol) was applied around the project area to ensure that in-combination effects on offshore, intertidal and onshore ornithological receptors were appropriately identified and assessed.
9. For offshore ornithological receptors for impacts relating to the array site or OECC the Zol was defined as the area encompassed by the maximum of the mean-max foraging range (plus one standard deviation), taken from Woodward *et al.* (2019), of all receptors considered within in-combination assessment, with the exception of fulmar and Manx shearwater. Fulmar and Manx shearwater were excluded in determining Zol ranges on account of their extremely large foraging ranges, and as such potential connectivity with very distant sites would mean apportioned impacts to these colonies would be imperceptible and would therefore make no meaningful in-combination contribution to impacts). For the key offshore ornithology receptors considered in in-combination assessment, excluding fulmar and Manx shearwater, gannet has the largest foraging range at 509 km (inclusive of one standard deviation) and thus this distance was used to define the Zol for all receptors.
10. For intertidal receptors for impacts relating to the OECC intertidal landfall within the South Dublin Bay area the Zol was defined as within the South Dublin Bay part of the South Dublin Bay and River Tolka Estuary SPA.
11. For the terrestrial and estuarine / Liffey receptors, the Zol was defined based on a precautionary maximum disturbance distance of 300 m as outlined by Cutts *et al.* (2013).
12. Certain planned and operational projects were screened out of further consideration for potential in-combination effects on ornithology based on there not being a potential impact-receptor-pathway across development phases for the following reasons:
 - There is no potential impact-receptor-pathway due to the project being outside of the Zol;
 - There is no potential impact-receptor-pathway due to there being no temporal overlap between project / plan activities with the potential for in-combination effect;
 - The plan / project does not have an ongoing effect or is part of the baseline; and
 - Very limited data are available for the project in question but on the basis of the data available no likely potential for in-combination effects arises
 - Project in question is at an early stage and will be subject to detailed future assessment that will take account of the CWP Project.
13. Projects screened in to in-combination assessment for impacts relating to the array site or OECC for offshore ornithological receptors are listed in **Table 3-1**, along with their minimum distances from the array site and OECC and their assigned tier.
14. Projects screened in to in-combination assessment for impacts relating to the OECC intertidal landfall are listed in **Table 3-2**, along with their minimum distances from the OECC intertidal landfall area and onshore development area and their assigned tier.
15. Other projects screened in to in-combination assessment for impacts relating to terrestrial and estuarine / Liffey receptors are listed in **Table 3-3**, along with the minimum distance from the onshore infrastructure and their assigned tier.

Table 3-1 Summary of other projects screened into the in-combination assessment for offshore ornithology

Development	Type	Distance from array site (km)	Distance from OECC (km)	Tier
Offshore wind energy projects				
Dublin Array	OWF	2.8	0	1
Arklow Bank Phase 2	OWF	9.3	9.9	1
Arklow Bank Phase 1	OWF	22.1	28.3	1
North Irish Sea Array	OWF	51.0	35.7	1
Oriel	OWF	83.9	61.6	1
Mona	OWF	125.1	128.7	1
Morgan	OWF	140.12	143.9	1
Awel-y-Mor	OWF	129.4	133.3	1
Rhyl Flats	OWF	138.4	142.5	1
Gwynt y Mor	OWF	140.3	144.2	1
Morecambe	OWF	154.4	157.9	1
Isle of Man (Moor Vannin)	OWF	154.2	156.7	1
Walney Extension 3	OWF	163.3	166.1	1
Walney Extension 4	OWF	165.9	168.8	1
North Hoyle	OWF	153.2	157.2	1
Burbo Bank Extension	OWF	162.0	166.0	1
Walney 2	OWF	173.4	175.6	1
West of Duddon Sands	OWF	174.2	177.4	1
Walney 1	OWF	176.2	179.4	1
Burbo Bank	OWF	171.6	175.6	1
Llyr 1	OWF	181.5	187.8	1
Ormonde	OWF	184.5	187.6	1
Erebus	OWF	167.9	173.9	1
Barrow	OWF	186.3	189.7	1
Robin Rigg West	OWF	222.1	221.6	1
Robin Rigg East	OWF	224.7	224.0	1
White Cross	OWF	207.5	213.9	1
Twin Hub	OWF	291.3	297.3	1
Other marine projects				
Minesto	Tidal energy			1
Dublin Port Company MP2	Coastal assets	25.1	4.2	1
Maintenance dredging River Boyne, Drogheda	Coastal assets	69.1	42.7	1
Development at Howth Fishery Harbour Centre (dredging and reclamation works)	Coastal assets	22.4	8.0	1
Arklow Bank Wind Park 2 O&M Facility	Coastal assets	30.8	33.1	1
3FM Project	Coastal assets	31.3	0.6	1
Maintenance Dredging in Dublin Port	Coastal assets	32.2	0.8	1
Greater Dublin Drainage Project	Coastal assets	33.1	9.9	1
Carnsore Wind Farm (Onshore)	Coastal assets	98.6	103.1	1
An Daingean Fishery Harbour Centre	Coastal assets	315.5	304.9	1

Development	Type	Distance from array site (km)	Distance from OECC (km)	Tier
Site investigation activities to inform the development of the North Irish Sea Array OWF	Surveys	62.0	41.7	1
Site investigation activities to inform the development of the Oriel OWF	Surveys	84.4	61.1	1
Site investigation activities in relation to the deep water terminal development on Foynes island	Surveys	225.2	210.8	1
HyNet North West Industrial Cluster & Liverpool Bay CO ₂ Storage	Carbon storage	148.1	152.0	1
East Coast Cluster & Northern Endurance	Carbon storage	484.9	488.8	1
Capital dredging works under the MP2 Project	Dumping at sea	23.2	3.7	1
Dublin Harbour Capital Dredging Project	Dumping at sea	23.2	3.7	1
Maintenance Dredging in River Boyne	Dumping at sea	69.1	44.1	1

Table 3-2 Summary of other development screened into the in-combination assessment for intertidal ornithology

Development	Distance from OECC (km)	Tier
Dredging and Dumping at Sea arising from the Dublin Harbour Capital Dredging Project	3.7	1
MP2 Project	4.2	1
Maintenance Dredging in Dublin Port	0.8	1
Maintenance Dredging in Dublin Port (dumping at sea)	3.7	1
3FM Project	0.6	1

Table 3-3 Summary of other developments screened into the in-combination assessment for onshore ornithology

Development	Distance from the onshore infrastructure (km)	Tier
Dublin Port Company 3FM	0	1

3.1 Introduction or spread of invasive non-native species: High level assessment for non-overlapping SPAs

16. Given that screened-in non-overlapping SPAs do not spatially overlap with any part of the CWP project, screened-in impacts to SCIs of those SPAs primarily (and generally entirely) relate to *ex situ* effects insofar that they do not impact areas within SPA boundaries (i.e., in situ impacts do not generally occur, or where they may they are extremely limited).
17. Potential introduction or spread of INNS impacts to non-overlapping SPAs is entirely limited to potential upon *ex situ* habitats which may support the SCIs and features of those SPAs. The areas of the CWP

Project in which the introduction or spread of INNS may coincide with, at most, very limited proportions of the *ex situ* supporting habitats of SCIs from the screened-in SPAs. It is therefore considered that the potential for such *ex situ* impacts to impede the Conservation Objectives of non-overlapping SPAs is negligible and therefore that there is no meaningful pathway for such impacts to result in AESI in- for the CWP project alone.

18. Despite this, the implementation of mitigation measures to align with EU policy (specifically EU Regulation 1143/2014 [regarding the prevention and management of the introduction and spread of INNS]; and The EU Biodiversity Strategy for 2030 [which contains a commitment to manage established INNS and decrease the number of Red List species they threaten by 50% by 2030]) in the form of biosecurity protocols outlined within the CEMP, shall eliminate or reduce CWP Project risk relating to the introduction or spread of invasive non-native species across all areas and phases of the project. This will have the effect of eliminating or reducing CWP *ex situ* introduction or spread of invasive non-native species impacts within supporting habitats of the SCIs of the above listed non-overlapping SPAs when considered in-combination with other projects.
19. In relation to the Conservation Objectives, attributes and targets for SCIs of all non-overlapping SPAs, for introduction and spread of INNS impacts it can be concluded that there is no impediment to their Conservation Objectives being met for any SCIs and, in turn, that there is no AESI for these SPAs as a result of the CWP Project in-combination with other projects.

3.2 South Dublin Bay and River Tolka Estuary SPA (IE004024)

20. This SPA is designated in relation to the following special conservation interests (SCIs) which have been screened in for consideration within the NIS: common tern, Arctic tern, roseate tern, black-headed gull, light-bellied brent goose, oystercatcher, ringed plover, grey plover, knot, sanderling, dunlin, bar-tailed godwit, redshank, and 'wetland and waterbirds. A summary of the in-combination assessment is provided in **Table 3-4**, with the details provided in **Table 3-5**.

Table 3-4 Summary of adverse effects on site integrity (AESI) (in-combination) - South Dublin Bay and River Tolka Estuary SPA

Objective:	Attributes and targets	Predicted impact [attribute(s) potentially affected]	Link to assessment	Mitigation	Residual effect	Conclusion
Sterna hirundo - Common tern [A193]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Passage population – No significant decline 4. Distribution: breeding colonies – No significant decline 5. Distribution: roosting areas – No significant decline 6. Prey biomass available – No significant decline 7. Barriers to connectivity – No significant increase 8. Disturbance at the breeding site – Human activities should occur at levels that do not adversely affect the breeding common tern population 9. Disturbance at roosting site – Human activities should occur at levels that do not adversely affect the numbers of common tern among the post-breeding aggregation of terns	Direct effects on habitat [1,3,5]	Section 2.2.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI
		Disturbance and displacement [1,2,3,4,5,7,8,9]		Section 2.2.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2,3,6]		None	No change	No AESI
		Collision [1,2,3]		None	No change	No AESI
		Introduction or spread of invasive species [1,2,3,4,5,6]	See high level assessment in Section 3.1			
Sterna paradisaea - Arctic tern [A194]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Passage population – No significant decline 2. Distribution: roosting areas – No significant decline 3. Prey biomass available – No significant decline 4. Barriers to connectivity – No significant increase 5. Disturbance at roosting site – Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns	Direct effects on habitat [1,2]	N/A	None	No change	No AESI
		Disturbance and displacement [1,2,4,5]		Section 2.2.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,3]		None	No change	No AESI
		Collision [3]		None	No change	No AESI
		Introduction or spread of invasive species [1,2,3]	See high level assessment in Section 3.1			
Sterna dougallii - Roseate tern [A192]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Passage population – No significant decline 2. Distribution: roosting areas – No significant decline 3. Prey biomass available – No significant decline 4. Barriers to connectivity – No significant increase 5. Disturbance at roosting site – Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns	Direct effects on habitat [1,2]	N/A	None	No change	No AESI
		Disturbance and displacement [1,2,4,5]		Section 2.2.3 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.3 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,3]		None	No change	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2,3]	See high level assessment in Section 3.1			
Chroicocephalus ridibundus - Black-headed gull [A179]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.5 of Volume 5 Part 1, and NIS Addendum (Part 1)Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.5 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement [1,2]		Section 2.2.5 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.5 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI

Objective:	Attributes and targets	Predicted impact [attribute(s) potentially affected]	Link to assessment	Mitigation	Residual effect	Conclusion
		Changes in prey availability [1,2]		Section 2.2.5 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.5 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			
Branta bernicla - Light-bellied brent goose [A046]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1) Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1) Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			
Haematopus - Oystercatcher [A130]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			
Charadrius hiaticula - Ringed plover [A137]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI

Objective:	Attributes and targets	Predicted impact [attribute(s) potentially affected]	Link to assessment	Mitigation	Residual effect	Conclusion
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
<i>Pluvialis squatarola</i> - Grey plover [A141]– This SCI is proposed for removal from the list of SCIs for the SPA. As a result, a site-specific Conservation Objective has not been set for this species. However, as this SCI has not yet been removed from the list of SCIs for this SPA, it has been assessed against the same Conservation Objective and associated attributes and targets as other wader SCIs of this SPA.						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
<i>Calidris canutus</i> - Knot [A143]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
<i>Calidris alba</i> - Sanderling [A144]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
<i>Calidris alpina</i> - Dunlin [A149]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI

Objective:	Attributes and targets	Predicted impact [attribute(s) potentially affected]	Link to assessment	Mitigation	Residual effect	Conclusion
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
Limosa lapponica - Bar-tailed godwit [A157]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
Tringa totanus - Redshank [A162]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	N/A	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
Wetland and Waterbirds [A999]						
To maintain the favourable conservation condition of the wetland habitat in the SPA as a resource for the regularly occurring migratory waterbirds that utilise it	1. Habitat area - The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192 hectares, other than that occurring from natural patterns of variation.	Direct effects on habitat [1]	N/A	Section 2.2.6 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.6 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1]		Section 2.2.6 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.2.6 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Introduction or spread of invasive species [1]	See high level assessment in Section 3.1			No AESI

Table 3-5 In-combination assessment of adverse effects on site integrity for South Dublin Bay and River Tolka Estuary SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Common tern, Arctic tern, roseate tern, black-headed gull	Array site	Project-only construction phase direct effects on habitat impacts within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, or on the basis that where detailed assessments for other projects are available for the specific SPA the projects 1 have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-4.
		All ('non wetland and waterbird') SCIs	OECC intertidal landfall	The spatial extent of intertidal habitat within the SPA that is estimated to be subject to temporary direct effects as a result of intertidal cable landfall activities is estimated to be 0.73% of available habitat. In the context of the negligible proportion of intertidal habitat within the SPA which will be affected during construction and the short-term temporary nature of the effects to those habitats, the scale of direct effects on habitat within the OECC intertidal landfall area is considered to be negligible. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in consideration of the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on habitat arising from other projects screened in to in-combination assessment (Table 3-2) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, or on the basis that where detailed assessments for other projects are available for the specific SPA the projects 1 have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to SCIs habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-4.
		Wetland and Waterbirds	OECC intertidal landfall	Project-only construction phase direct effects on habitat impacts within the OECC intertidal landfall represent a negligible proportion of the Wetland and Waterbirds SCI habitat area. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on habitat arising from other projects screened in to in-combination assessment (Table 3-2) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-4.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Common tern, Arctic tern, roseate tern, black-headed gull	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-4.
		All	OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the intertidal landfall area represent a negligible proportion of intertidal habitat areas. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of intertidal habitat loss under normal operation. Occasional maintenance actions may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however the physical area of intertidal habitat affected by activities is considered to be negligible relative to the habitat areas available within South Dublin Bay and River Tolka Estuary SPA. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in consideration of the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, or on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-4.
		Wetland and waterbirds	OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC intertidal landfall represent a negligible proportion of the Wetland and Waterbirds SCI habitat area. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC intertidal landfall area during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-4.

Impact	Phase	SCI(s)	Area	In-combination assessment
Disturbance and displacement	Construction	All	Array site	Disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-4.
		All	OECC intertidal landfall	Project-only construction phase impacts arising from disturbance and displacement within the OECC intertidal landfall area are considered to affect a negligible proportion of the SPA SCI populations, once mitigative measures of seasonal and night-time restrictions are put in place. Seasonal restrictions will require that construction does not take place within intertidal areas between September and March, inclusive. Night-time timing restrictions require that no works are to be undertaken between mid-July and August during the dawn and dusk crepuscular periods or at night, when tern species are likely to be roosting in the intertidal zone. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Provided that disturbance-inducing activities of other projects (Table 3-2) screened in to the in-combination assessment of this impact are mitigated similarly, it is considered that disturbance and displacement impacts would be similarly negligible in this regard. For tern SCIs, which are present in greatest numbers during the late summer to early autumn period, additional timing restrictions on construction works are applied in order to mitigate against impacts to these autumn-staging terns. These timing restrictions require that no works are to be undertaken during the dawn and dusk crepuscular periods or at night, when terns are likely to be roosting in the intertidal zone. Any residual impacts to terns would be restricted to the diurnal period, when sensitivity to anthropogenic activities is considered to be lower. Although intertidal waterbird species are known to exhibit a range of behavioural responses to anthropogenic activity (i.e., low-tolerance species may flee at lower disturbance levels than high-tolerance species), it is considered that the extent of intertidal habitat available is such that any residually impacted individuals can still access alternative areas within the vicinity. It is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-4.
		Common tern	Onshore infrastructure	Following the application of mitigative measures outlined in NIS Volume 5, Part 1, Section 2.2.2, it was determined that there is no potential for AESI from the project-only construction phase disturbance and displacement impacts to the common tern SCI of South Dublin Bay and River Tolka Estuary SPA, of which there is a SPA breeding colony approximately 250 m to the northeast of the onshore substation area. The other development screened in to in-combination assessment (Table 3-3), assess their project only disturbance and displacement impacts to this SCI to be negligible. In-combination disturbance and displacement impacts to the common tern SCI of South Dublin Bay and River Tolka Estuary SPA is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement from construction phase activity to develop onshore infrastructure with regard to SCI Conservation Objectives stated in Table 3-4.
		Light-bellied brent goose		Following the application of mitigative measures outlined in NIS Volume 5, Part 1, Section 2.2.4, it was determined that there is no potential for AESI from the project-only construction phase disturbance and displacement impacts to the light-bellied brent goose SCI of South Dublin Bay and River Tolka Estuary SPA, which utilises the onshore 'Goose Green' grassland area are assessed to be negligible. It is considered that the negligible project only contribution to disturbance and displacement impacts would be inconsequential. As such, in consideration of the other development screened in to in-combination assessment (Table 3-3), there is assessed to be no in-combination AESI as a result of disturbance and displacement from construction phase activity to develop onshore infrastructure with regard to SCI Conservation Objectives stated in Table 3-4.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	All	Array site	Disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-4.
		All	OECC intertidal landfall	Project-only operation and maintenance phase disturbance and displacement impacts within the intertidal landfall area represent a negligible proportion of intertidal waterbird SCI habitat use areas during breeding, migration and / or wintering periods. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no mechanism for disturbance or displacement to waterbird SCIs under normal operation. Occasional maintenance actions may require some activities which illicit disturbance responses from waterbirds along the buried infrastructure during this phase of the project, however the short temporal duration and small scale of any such activities is considered to be negligible relative to the habitat areas available to seabird SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprints of disturbance and displacement inducing activities within the SPA arising from the activities of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only disturbance and displacement footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-4.
Changes in prey availability	Construction	Common tern, Arctic tern, roseate tern, black-headed gull	Array site OECC	Project-only construction phase impacts arising from changes in prey availability within the array site and OECC are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical seabird foraging areas. Impacts to seabird prey species from array site and OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects impacts on prey availability are considered similarly negligible. This is on the basis that other project effects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area and OECC with regard to SCI Conservation Objectives stated in Table 3-4.
		All	OECC intertidal landfall	Project-only construction impacts arising from changes in prey availability within the intertidal segment of the OECC are considered to represent a negligible proportion of habitats available to the prey species of intertidal waterbird SCIs. Additionally, project-only construction phase impacts arising from changes in prey availability within the OECC intertidal landfall are considered to be mitigated for as per the seasonal timing restrictions implemented in order to minimise disturbance and displacement impacts. Intertidal waterbird SCIs will largely be absent from the SPA during the April to August landfall construction period, and with the high rate of recoverability of intertidal habitats, it is considered that the prey species of

Impact	Phase	SCI(s)	Area	In-combination assessment
				intertidal waterbirds would likely rapidly repopulate areas of disrupted intertidal habitat. Any residual impacts on prey availability are considered to represent a negligible proportion of SPA habitats available to intertidal waterbird SCIs migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The impact footprints of changes in prey availability arising from intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard, provided that developers apply similar seasonal restrictions on activities within this SPA. The in-combination total project-only changes in prey availability on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to habitat use extents of the SCIs. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-4.
	O&M	Common tern, Arctic tern, roseate tern, black-headed gull	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-4.
		Common tern, Arctic tern, roseate tern, black-headed gull	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-4.

Impact	Phase	SCI(s)	Area	In-combination assessment
		All	OECC intertidal landfall	Project-only operation and maintenance phase impacts arising from changes in prey availability within the intertidal segment of the OECC represent a negligible proportion of habitats available to the prey species of seabird SCIs. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to these SCIs. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to the prey species of intertidal waterbird SCIs under normal operation. Occasional maintenance activities may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however effects on prey species which inhabit intertidal substrate affected by such activities is considered to be negligible, relative to the habitat areas available to seabird SCIs. Furthermore, the rate of recoverability of intertidal habitats following any maintenance excavations is considered to be high, lasting several tidal cycles. Repopulation of any disrupted intertidal habitat by seabird prey species is considered to occur quickly. The magnitude of impacts to potentially sensitive intertidal waterbird prey species arising from the presence of an EMF around infrastructure cables are assessed as being very low. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The prey availability impact footprints of intertidal activities within South Dublin Bay in relation to other projects screened in for the in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total footprint of changes in prey availability for project-only, when considered alongside all other projects screened in to the in-combination assessment of this impact, is therefore considered to be negligible in relation to seabird prey species' habitat use extents, and by extension to the habitat use areas available to the SCIs themselves. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-4.
Collision	O&M	Common tern	Array site	During the operation and maintenance phase of the CWP Project the presence of operational WTGs within the array site may result in mortality of this SPA SCI through predicted collisions of individuals with turbine blades. Collision mortality has the potential to impact on the Conservation Objective attribute and targets for this SPA SCI as per Table 3-4 Project-only collision impacts to this SPA SCI which may pass through the array site during migration periods are assessed to result in no AESI in relation to the SPA breeding population and in relation to the SPA post-breeding aggregation (see NIS Volume 5 Part 1, Section 2.2). The increase in baseline mortality to the breeding common tern population of the SCI from the CWP Project alone is modelled to be a total of 0.030 individuals per annum [one mortality every 33.3 years, on average] for array site Design Option A and 0.027 individuals per annum [one mortality per 37 years] for array site Design Option B), representing a 0.026% or 0.023% increase to SPA mortality rates respectively. The increase in baseline mortality to the post-breeding common tern SCI population from the CWP Project alone is modelled to be a total of 0.531 individuals per annum [one mortality per 1.9 years, on average] for array site Design Option A and 0.475 individuals per annum [one mortality per 2.1 years, on average] for array site Design Option B, representing up to a 0.016% or 0.014% increase to SPA mortality rates respectively. A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5, and NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality estimates to the common tern SCI of South Dublin Bay and River Tolka Estuary SPA from other projects in Table 3-1, as a result of no collision mortalities for this SCI apportioned to this SPA for other projects, and in light of the apparent rapid increase in the breeding population of this SCI at this SPA (a 129% increase from 512 to 988 individuals between the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002) and surveys for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2016)), it is not feasible to undertake a quantitative assessment of potential effects in-combination with other projects. Notwithstanding this, it is considered that any negligible project-only contribution to similarly negligible in-combination collision impacts to this SCI of South Dublin Bay and River Tolka Estuary SPA cannot contribute to AESI in such a way as to adversely affect the Conservation Objective of the SPA to maintain the favourable conservation condition of the SCI. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no AESI as a result of predicted in-combination collision impacts with regard to SCI Conservation Objectives stated in Table 3-4.

Impact	Phase	SCI(s)	Area	In-combination assessment
		Arctic tern, roseate tern, black-headed gull	Array site	Project-only collision impacts to these SCIs are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5 Part 1, Section 2.2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality from Dublin Array and North Irish Sea Array OWFs, and as all other OWF projects listed in are beyond the mean maximum foraging range (+ 1 SD) of these species from South Dublin Bay and River Tolka Estuary SPA, it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs of South Dublin Bay and River Tolka Estuary SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCIs Conservation Objectives stated in Table 3-4.
		All wildfowl and waders	Array site	Project-only collision impacts to these SCIs are assessed to be negligible on the basis that estimated collision mortalities were very low. The risk of collision to migratory wildfowl and wader SCIs is considered to be negligible when project-only impacts are considered, primarily due to the likelihood that such species will tend to fly around, rather than through, the operational array site (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5 Part 1, Section 2.2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the combining the collision mortality estimates from projects listed in Table 3-1, these are not available or provided; however it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-4.

3.3 North Bull Island SPA (IE004006)

21. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: black-headed gull, light-bellied brent goose, shelduck, teal, pintail, shoveler, oystercatcher, golden plover, grey plover, knot, sanderling, dunlin, black-tailed godwit, bar-tailed godwit, curlew, redshank and turnstone. A summary of the in-combination assessment is provided in **Table 3-6**, with the details provided in **Table 3-7**. The CWP Project does not directly interact with the North Bull Island SPA, with no physical overlap between the CWP Project and the SPA. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-6 Summary of adverse effects on site integrity (in-combination) - North Bull Island SPA

Objective:	Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion	
Black-headed gull [A179]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Disturbance and displacement [1,2]		Section 2.3.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Changes in prey availability [1, 2]		Section 2.3.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Collision [1]		None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1				No AESI
		Light-bellied brent goose [A046]					
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Collision [1]		None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1				No AESI
		Shelduck [A048]					
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and	Section 2.3.1 of Volume 5 Part 1,	Section 2.3.1 of Volume 5 Part 1, and NIS	No AESI	

Objective:	Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
	2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation		NIS Addendum (Part 1)	and NIS Addendum (Part 1)	Addendum (Part 1)	
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
		Teal [A052]				
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
		Pintail [A054]				
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI

Objective:	Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion	
Shoveler [A857]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Collision [1]		None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1				No AESI
		Oystercatcher [A130]					
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Collision [1]		None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1				No AESI
		Golden plover [A140]					
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI	
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS	No AESI	

Objective:	Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
					Addendum (Part 1)	
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			
Grey plover [A141]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]	None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			
Knot [A143]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]	None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			
Sanderling [A144]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS	No AESI

Objective:	Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
					Addendum (Part 1)	
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
Dunlin [A149]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]	None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
Black-tailed godwit [A156]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]	None	No change	No AESI	
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
Bar-tailed godwit [A157]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS	No AESI

Objective:	Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
					Addendum (Part 1)	
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
		Curlew [A160]				
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI
		Redshank [A162]				
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI

Objective:	Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Turnstone [A169]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population trend – Long-term population trend stable or increasing 2. Distribution - No significant decrease in the range, timing or intensity of use of areas other than that occurring from natural patterns of variation	Direct effects on habitat [1,2]	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Disturbance and displacement (including barrier effects) [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Changes in prey availability [1,2]		Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.3.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI
		Collision [1]		None	No change	No AESI
		Introduction or spread of invasive species [1,2]	See high level assessment in Section 3.1			No AESI

Table 3-7 In-combination assessment of adverse effects on site integrity for North Bull Island SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Black-headed gull	Array site	Project-only construction phase direct effects on <i>ex situ</i> habitat impacts within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA for this specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-6.
		Black-headed gull	OECC	Project-only construction phase direct effects on habitat impacts within the OECC represent a negligible proportion of seabird SCI <i>ex situ</i> habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-6.
		All	OECC intertidal landfall	The spatial extent of <i>ex situ</i> intertidal habitat (i.e., beyond the boundaries of North Bull Island SPA) that is estimated to be subject to temporary direct effects as a result of intertidal cable landfall activities is 0.16 km², and is confined to the functionally connected South Dublin Bay and River Tolka Estuary SPA. This equates to approximately 0.42% of total available intertidal habitat across the South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA complex. In the context of the negligible proportion of <i>ex situ</i> intertidal habitat within North Bull Island SPA and in situ habitat within the functionally linked South Dublin Bay and River Tolka Estuary SPA which will be affected during construction and the short-term temporary nature of the effects to those habitats, the scale of direct effects on habitat within the OECC intertidal landfall area is considered to be negligible. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in consideration of the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, or on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on <i>ex situ</i> habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to SCIs habitat use extents. Consequently, there is assessed to be no in-combination AESI

				as a result of direct effects on habitat within the OECC intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-6 .
	O&M	Black-headed gull	Array site	Project-only operation and maintenance phase direct effects on <i>ex situ</i> habitat within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-6.
		Black-headed gull	OECC	Project-only operation and maintenance phase direct effects on <i>ex situ</i> habitat within the OECC represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-6.
		All	OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the intertidal landfall area represent a negligible proportion of intertidal habitat areas. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of intertidal habitat loss under normal operation. Occasional maintenance actions may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however the physical area of intertidal habitat affected by activities is considered to be negligible relative to the habitat areas available within North Bull Island SPA. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in consideration of the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, or on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site.

				The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-6.
Disturbance and displacement	Construction	All	Array site	<i>ex situ</i> disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the presence of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-6.
		All	OECC intertidal landfall	Project-only construction phase impacts arising from <i>ex situ</i> disturbance and displacement within the OECC intertidal landfall area are considered to affect a negligible proportion of the North Bull Island SPA SCI populations if they are present in the functionally connected South Dublin Bay and River Tolka Estuary SPA during construction. Seasonal restrictions will require that construction does not take place within <i>ex situ</i> intertidal areas between September and March, inclusive. Night-time timing restrictions require that no works are to be undertaken between mid-July and August during the dawn and dusk crepuscular periods or at night, when tern species are likely to be roosting in the intertidal zone. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is important to note that no other projects are proposed within either the North Bull Island SPA nor the South Dublin Bay and River Tolka SPA. It is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Furthermore, in the absence of other projects within either North Bull Island SPA or South Dublin Bay and River Tolka SPA there are anticipated to be no meaningful pathways for in-combination effect. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-6.
	O&M	All	Array site	<i>ex situ</i> disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-6.
		All	OECC intertidal landfall	Project-only operation and maintenance phase <i>ex situ</i> disturbance and displacement impacts within the intertidal landfall area at South Dublin Bay represent a negligible proportion of the total intertidal waterbird SCI habitat use areas across North Bull Island and South Dublin Bay and River Tolka SPA during breeding, migration and / or wintering periods. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no mechanism for disturbance or

				displacement to waterbird SCIs under normal operation. Occasional maintenance actions may require some activities which illicit disturbance responses from waterbirds along the buried infrastructure during this phase of the project, however the short temporal duration and small scale of any such activities is considered to be negligible relative to the habitat areas available to seabird SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprints of disturbance and displacement inducing activities within the SPA arising from the activities of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard, in particular given that no other projects are anticipated within the intertidal area of South Dublin Bay. The in-combination total project-only disturbance and displacement footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-6.
Changes in prey availability	Construction	Black-headed gull	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for this SCI. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical seabird foraging areas. Impacts to seabird prey species from array site construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-6.
		Black-headed gull	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-6.
		All	OECC intertidal landfall	Project-only construction impacts arising from changes in prey availability within the intertidal segment of the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of habitats available to the prey species of intertidal waterbird SCIs. Additionally, project-only construction phase impacts arising from changes in prey availability within the OECC intertidal landfall are considered to be mitigated for as per the seasonal timing restrictions implemented in order to minimise disturbance and displacement impacts. Intertidal waterbird SCIs will largely be absent from the SPA during the April to August landfall construction period, and with the high rate of recoverability of intertidal habitats, it is considered that the prey species of intertidal waterbirds would likely rapidly repopulate areas of disrupted intertidal habitat. Any residual impacts on prey availability are considered to represent a negligible proportion of SPA habitats available to intertidal waterbird SCIs migration and / or wintering periods.

				This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The impact footprints of changes in prey availability arising from intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard, given no projects are proposed. The in-combination total project-only changes in prey availability on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to habitat use extents of the SCI It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to this SPA SCI cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-6.
O&M	Black-headed gull	Array site		Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-6.
	Black-headed gull	OECC		Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-6.
	All	OECC intertidal landfall		Project-only operation and maintenance phase impacts arising from changes in prey availability within the intertidal segment of the OECC on an <i>ex situ</i> basis represent a negligible proportion of habitats available to the prey species of seabird SCIs. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to the prey species of intertidal waterbird SCIs under normal operation. Occasional maintenance activities may

				require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however effects on prey species which inhabit intertidal substrate affected by such activities is considered to be negligible, relative to the habitat areas available to seabird SCIs. Furthermore, the rate of recoverability of intertidal habitats following any maintenance excavations is considered to be high, lasting several tidal cycles. Repopulation of any disrupted intertidal habitat by seabird prey species is considered to occur quickly. The magnitude of impacts to potentially sensitive intertidal waterbird prey species arising from the presence of an EMF around infrastructure cables are assessed as being very low. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The <i>ex situ</i> prey availability impact footprints of intertidal activities within the functionally connected South Dublin Bay and River Tolka Estuary SPA in relation to other projects screened in for the in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total footprint of changes in prey availability for project-only, when considered alongside all other projects screened in to the in-combination assessment of this impact, is therefore considered to be negligible in relation to seabird prey species' habitat use extents, and by extension to the habitat use areas available to the SCIs themselves. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to the North Bull Island SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-6.
Collision	O&M	Black-headed gull	Array site	Project-only collision impacts to the SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 1, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality from Dublin Array and North Irish Sea Array OWFs, and as all other OWF projects listed in are beyond the mean maximum foraging range (+ 1 SD) of these species from North Bull Island SPA, it is considered that the negligible project-only contribution to in-combination collision impacts to the SCI of North Bull Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCIs Conservation Objectives stated in Table 3-6.
		All wildfowl and waders	Array site	Project-only collision impacts to these SCIs basis are assessed to be negligible on the basis that estimated collision mortalities were very low. The risk of collision to migratory wildfowl and wader SCIs is considered to be negligible when project-only impacts are considered, primarily due to the likelihood that such species will tend to fly around, rather than through, the operational array site (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 1, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the combining the collision mortality estimates from projects listed in Table 3-1, these are not available or provided; however it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-6.

3.4 Dalkey Islands SPA (IE004172)

22. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: common tern, Arctic tern and roseate tern. A summary of the in-combination assessment is provided in **Table 3-8**, with the details provided in **Table 3-9**. The CWP Project does not directly interact with the Dalkey Island SPA, with no physical overlap between the CWP Project and the SPA. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-8 Summary of adverse effects on site integrity (AESI) (in-combination) – Dalkey Islands SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion			
Objective: To restore [common tern, Arctic tern, roseate tern] the Favourable conservation condition of the SCI in Dalkey Islands SPA, which is defined by the following list of attributes and targets: 1. Post breeding and passage population size – Long term SPA population trend is stable or increasing 2. Distribution: extent of available roosting options within the SPA 3. Forage spatial distribution, extent, abundance and availability – Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. Disturbance at the roosting site – Disturbance occurs at levels that do not significantly impact on birds at the roost sites 5. Disturbance at areas ecologically connected to the colony – Disturbance occurs at levels that do not significantly impact on post-breeding and passage population 6. Barriers to connectivity – Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Common Tern [A193]							
	Direct effects on habitat [1,3]	Section 2.4.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI			
	Disturbance and displacement [1,3,5]		Section 2.4.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.4.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI			
	Changes in prey availability [1,3]					None	No change	No AESI
	Collision [1]					None	No change	No AESI
	Introduction or spread of invasive species [1,2,3]	See high level assessment in Section 3.1				No AESI		
	Arctic tern [A194]							
	Direct effects on habitat [1, 3]	Section 2.4.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI			
	Disturbance and displacement [1,3,5]		Section 2.4.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.4.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI			
	Changes in prey availability [1,3]					None	No change	No AESI
	Collision [1]					None	No change	No AESI
	Introduction or spread of invasive species [1,2,3]	See high level assessment in Section 3.1				No AESI		
	Roseate tern [A192]							
	Direct effects on habitat [1,3]	Section 2.4.3 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI			
	Disturbance and displacement [13,5]		Section 2.4.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.4.1 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI			
	Changes in prey availability [1,3]					None	No change	No AESI
	Collision [1]					None	No change	No AESI
	Introduction or spread of invasive species [1,2,3]	See high level assessment in Section 3.1				No AESI		

Table 3-9 In-combination assessment of adverse effects on site integrity for Dalkey Islands SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	All	Array site	Project only construction phase direct effects on <i>ex situ</i> habitat impacts within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects

Impact	Phase	SCI(s)	Area	In-combination assessment
				and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other projects <i>ex situ</i> direct effects are spatially limited, do not directly interact with the Dalkey Islands SPA, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-8.
		All	OECC	Project only construction phase direct effects on <i>ex situ</i> habitat impacts within the OECC similarly represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, do not directly interact with the Dalkey Islands SPA, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, or on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to SCIs habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-8.
		All	OECC intertidal landfall	Project only construction phase direct effects on <i>ex situ</i> habitat impacts within the intertidal segment of the OECC represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP Project. This is on the basis that other project direct effects are spatially limited, do not directly interact with the Dalkey Islands SPA, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, or on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on <i>ex situ</i> habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to SCIs habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal section of the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-8.
	O&M	All	Array site	Project-only operation and maintenance phase direct effects on <i>ex situ</i> habitat impacts within the array site represent a negligible proportion of seabird SCI <i>ex situ</i> habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA.

Impact	Phase	SCI(s)	Area	In-combination assessment
				The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. This is on the basis that other project direct effects are spatially limited, do not directly interact with the Dalkey Islands SPA, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-8.
		All	OECC	Project-only operation and maintenance phase direct effects on <i>ex situ</i> habitat impacts within the OECC represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. This is on the basis that other project direct effects are spatially limited, do not directly interact with the Dalkey Islands SPA, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on <i>ex situ</i> habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-8.
		All	OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the intertidal section of the OECC represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 1 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible. The project footprints are therefore considered similarly negligible when combined with CWP. This is on the basis that other project direct effects are spatially limited, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of direct effects on <i>ex situ</i> habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal section of the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-8.
Disturbance and displacement	Construction	All	OECC intertidal landfall	Project-only construction phase impacts arising from <i>ex situ</i> disturbance and displacement within the OECC intertidal landfall area are considered to affect a negligible proportion of the Dalkey Islands SPA SCI populations if they are present in the functionally connected South Dublin Bay and River Tolka Estuary SPA during construction. Seasonal restrictions for works in the South Dublin Bay and River Tolka SPA will require that construction does not take place within <i>ex situ</i> intertidal areas between September and March, inclusive. Night-time timing restrictions require that no works are to be undertaken between mid-July and August during the dawn and dusk crepuscular periods or at night, when tern species are likely to be roosting in the intertidal zone. This allows a conclusion to be drawn

Impact	Phase	SCI(s)	Area	In-combination assessment
				of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is important to note that no other projects are proposed within either the Dalkey Islands SPA nor the South Dublin Bay and River Tolka SPA. It is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to the SCIs of this SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-8.
	O&M	All	OECC intertidal landfall	Project-only operation and maintenance phase disturbance and displacement impacts within the intertidal landfall area on an <i>ex situ</i> basis represent a negligible proportion of intertidal habitat use areas during breeding, migration and / or wintering periods. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no mechanism for disturbance or displacement to SCIs under normal operation. Occasional maintenance actions may require some activities which illicit disturbance responses from along the buried infrastructure during this phase of the project, however the short temporal duration and small scale of any such activities is considered to be negligible relative to the habitat areas available to SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprints of disturbance and displacement inducing activities within the SPA arising from the activities of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only disturbance and displacement footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-8.
Changes in prey availability	Construction	All	Array site & OECC	Project-only construction phase impacts arising from changes in prey availability within the array site and OECC are considered to represent a negligible proportion of prey availability for these SCIs on an <i>ex situ</i> basis. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical seabird foraging areas. Impacts to seabird prey species from array site and OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area and OECC with regard to SCI Conservation Objectives stated in Table 3-8.
		All	OECC intertidal landfall	Project-only construction impacts arising from changes in prey availability within the intertidal segment of the OECC are considered to represent a negligible proportion of habitats available to the prey species of breeding tern SCIs on an <i>ex situ</i> basis. Although project-only construction phase impacts to migratory and wintering intertidal waterbirds arising from changes in prey availability within the OECC intertidal landfall are considered to be mitigated for as per the seasonal timing restrictions implemented in order to minimise disturbance and displacement impacts, breeding tern SCIs are present in greatest numbers during the late summer to early autumn (i.e., during the period of construction works). Nevertheless, any residual direct effects on habitat are considered to represent a negligible proportion of SPA habitats available to breeding tern SCIs during the breeding and / or migration periods. Project-only direct

Impact	Phase	SCI(s)	Area	In-combination assessment
				effects on habitat are assessed also to be negligible (See Volume 5, Part 1 of the NIS: Sections 2.4.1 to 2.4.3). Given the high rate of recoverability of intertidal habitats, it is considered that the prey species of breeding tern SCIs would likely rapidly repopulate areas of disrupted intertidal habitat. Any residual impacts on prey availability are considered to represent a negligible proportion of SPA habitats available to breeding tern SCIs during breeding and / or migration periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The impact footprints of changes in prey availability arising from intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard, provided that developers apply similar seasonal restrictions on activities within this SPA. The in-combination total project-only changes in prey availability on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to habitat use extents of the SCIs. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-8.
	O&M	All	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs on an <i>ex situ</i> basis. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-8.
		All	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs on an <i>ex situ</i> basis. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other developments must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed

Impact	Phase	SCI(s)	Area	In-combination assessment
				assessments for other projects are available for the specific SPA the projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-8.
		All	OECC intertidal landfall	Project-only operation and maintenance phase impacts arising from changes in prey availability within the intertidal segment of the OECC represent a negligible proportion of habitats available to the prey species of seabird SCIs on an <i>ex situ</i> basis. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to these SCIs. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to the prey species of intertidal waterbird SCIs under normal operation. Occasional maintenance activities may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however effects on prey species which inhabit intertidal substrate affected by such activities is considered to be negligible, relative to the habitat areas available to seabird SCIs. Furthermore, the rate of recoverability of intertidal habitats following any maintenance excavations is considered to be high, lasting several tidal cycles. Repopulation of any disrupted intertidal habitat by seabird prey species is considered to occur quickly. The magnitude of impacts to potentially sensitive intertidal waterbird prey species arising from the presence of an EMF around infrastructure cables are assessed as being very low. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The prey availability impact footprints of intertidal activities within South Dublin Bay in relation to other projects screened in for the in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total footprint of changes in prey availability for project-only, when considered alongside all other projects screened in to the in-combination assessment of this impact, is therefore considered to be negligible in relation to seabird prey species' habitat use extents, and by extension to the habitat use areas available to the SCIs themselves. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-2), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-8.
Collision	O&M	Common tern	Array site	Project-only predicted collision impacts to the common tern SCI of Dalkey Island SPA which may forage within the array site during the breeding period or pass through the array site during migration periods are assessed to be negligible in relation to the SPA breeding population and in relation to the SPA post-breeding aggregation (NIS Volume 5, Part 1). Impacts to the very small breeding common tern population of the SPA (30 individuals – 2017 count) are assessed to be a total of 0.012 individuals per annum [one mortality per 83.3 years] for array site Design Option A and 0.011 individuals per annum [one mortality per 90.9 years] for array site Design Option B). Maximum impacts to the post-breeding common tern SCI are assessed to be a total of 0.531 individuals per annum [one mortality per 1.9 years] for array site Design Option A and 0.475 individuals per annum [one mortality per 2.1 years] for array site Design Option B, representing up to a 0.016% or 0.014% increase to SPA mortality rates respectively. In the absence of collision mortality estimates to the common tern SCI of Dalkey Islands SPA from other projects in Table 3-1, it is considered that any negligible project-only contribution to in-combination collision impacts to this SCI of Dalkey Islands SPA cannot contribute to AESI in such a way as to adversely affect or impede the Conservation Objective of the SPA to maintain the favourable conservation condition of the SCI. As such, there is assessed to be no AESI as a result of in-combination collision impacts with regard to SCI Conservation Objectives stated in Table 3-8.
		Arctic tern, roseate tern	Array site	Project-only collision impacts to these SCIs are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 1, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality from Dublin Array and North Irish Sea Array OWFs, and as all other OWF projects listed in are beyond the mean maximum foraging range (+ 1 SD) of these species from Dalkey Islands SPA, it is considered that the negligible



Impact	Phase	SCI(s)	Area	In-combination assessment
				project-only contribution to in-combination collision impacts to these SCIs of Dalkey Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCIs Conservation Objectives stated in Table 3-8 .

3.5 The Murrough SPA (IE004186)

23. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: herring gull, black-headed gull, red-throated diver, little tern, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, teal and wigeon. A summary of the in-combination assessment is provided in **Table 3-10** with the details provided in **Table 3-11**.

Table 3-10 Summary of adverse effects on site integrity (AESI) (in-combination) – The Murrough SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion		
Herring gull [A184], Black-headed gull [A179]							
Objective: To maintain [herring gull, black-headed gull] the Favourable conservation condition of the SCI in The Murrough SPA, which is defined by the following list of attributes and targets: 1. Winter population trend - Long term winter population trend is stable or increasing 2. Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target 3. Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution 4. Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA 5. Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 6. Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target 7. Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 2.5.2 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI		
	Disturbance and displacement [1,2,3,5]		None	No change	No AESI		
	Changes in prey availability [1,2,5]		None	No change	No AESI		
	Collision [1]		None	No change	No AESI		
		Introduction or spread of invasive species [1,2,3,6]	See high level assessment in Section 3.1			No AESI	
Red-throated diver [A001]							
Objective: To maintain [red-throated diver] the Favourable conservation condition of the SCI in The Murrough SPA, which is defined by the following list of attributes and targets: 1. Non-breeding population size - Long term SPA population trend is stable or increasing 2. Spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target 3. Disturbance across the site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution 4. Barriers to connectivity and site use - Barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA 5. Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 6. Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target	Direct effects on habitat [1,2]	Section 2.5.3 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI		
	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		Section 2.5.3 of Volume 5 Part 1, and NIS Addendum (Part 1)	Section 2.5.3 of Volume 5 Part 1, and NIS Addendum (Part 1)	No AESI		
	Changes in prey availability [1,2,5]				None	No change	No AESI
	Collision [1]				None	No change	No AESI
		Introduction or spread of invasive species [1,2,3,6]	See high level assessment in Section 3.1			No AESI	
Little tern [A885]							
Objective: To restore maintain [little tern] the Favourable conservation condition of the SCI in The Murrough SPA, which is defined by the following list of attributes and targets: 1. Breeding population size – Long term SPA population trend is stable or increasing 2. Productivity rate – Sufficient to maintain a stable or increasing population 3. Distribution: extent of available nesting options within the SPA – Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population 4. Forage spatial distribution, extent, abundance and availability – Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 5. Disturbance at the breeding site – Disturbance occurs at levels that do not significantly impact on birds at the breeding site 6. Disturbance at areas ecologically connected to the colony – Disturbance occurs at levels that do not significantly impact on breeding population 7. Barriers to connectivity – Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,4]	Section 2.5.4 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI		
	Changes in prey availability [1,4]		None	No change	No AESI		
	Collision [1,2]		None	No change	No AESI		
		Introduction or spread of invasive species [1,2,3]	See high level assessment in Section 3.1			No AESI	
Whooper swan [A038], Light-bellied brent goose [A046], Greenland white-fronted goose [A395], Greylag goose [A043], Teal [A052], Wigeon [A855]							

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [greylag goose, light-bellied brent goose] / maintain [wigeon, teal] the Favourable conservation condition of the SCI in The Murrough SPA, which is defined by the following list of attributes and targets: 1. Winter population trend - Long term winter population trend is stable or increasing 2. Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target 3. Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution 4. Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA 5. Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 6. Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target 7. Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA	Direct effects on habitat [1,7]	Section 2.5.5 of Volume 5 Part 1, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [1,3,4]		None	No change	No AESI
	Changes in prey availability [1,5]		None	No change	No AESI
	Introduction or spread of invasive species [1,2,5,6,7]	See high level assessment in Section 3.1			No AESI

Table 3-11 In-combination assessment of adverse effects on site integrity The Murrough SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Herring gull, black-headed gull, red-throated diver, little tern	Array site	Project-only construction phase direct effects on habitat impacts within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-10.
		Herring gull, black-headed gull, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, wigeon	OECC intertidal landfall	Project-only construction phase direct effects on habitat impacts within the OECC intertidal landfall are considered to be negligible given the spatial extent of the habitat affected and the, the temporary nature of the works, and the recoverability of the habitat. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 8.2) are predicted within the respective EIAs and Natura assessments to be negligible. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC intertidal landfall during construction with regard to SCI Conservation Objectives stated in Table 3-10.

	O&M	Herring gull, black-headed gull, red-throated diver, little tern	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site represent a negligible proportion of <i>ex situ</i> seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-10.
		Herring gull, black-headed gull, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, wigeon	OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC intertidal landfall are considered to be negligible given the spatial extent of the <i>ex situ</i> habitat affected and the temporary nature of the works, as well as the recoverability of habitat. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC intertidal landfall during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-10.
Disturbance and displacement	Construction	All	Array site	<i>ex situ</i> disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-10.
		Red-throated diver (indirect habitat loss)	Array site	Two other relevant projects screened in to in-combination assessment (Table 3-1) are within the conservative maximum potential disturbance or displacement distance for red-throated diver of 10 km to The Murrough SPA; Dublin Array OWF (c.2.4km to the north-east of the SPA) and Arklow Extension OWF (c. 8.0km to the south-south-east of the SPA). These projects consequently may contribute alongside CWP to in-combination displacement effects to divers within the SPA. Referring to the Dublin Array assessment, estimated construction phase displacement mortality by Dublin Array OWF to red-throated diver within The Murrough SPA (based on construction phase impacts being half the operational phase impacts - which assumes an SPA population of 131 individuals; and an even distribution of individuals throughout the SPA area, 52% displacement within 10km of the array and 1% mortality) is 0.115 individuals (Dublin Array, 2025). No estimate of impacts to red-throated diver within The Murrough SPA are provided in the NIS of Arklow Extension OWF as this SPA is screened out of inclusion in the NIS, with disturbance risk to red-throated diver characterised as being very small on account of the distance between the proposed development and the SPA (7.05km).

				In-combination construction phase displacement mortality calculated as the sum of the revised CWP project only construction phase displacement impact [assumed to be 50% of the operational phase impact] to the SPA (0.026 individuals per annum) and the published impact values of the two other relevant projects, is therefore calculated to be 0.141 individuals per annum. This very low in-combination mortality, much less than one individual per annum, is considered negligible in relation to the SPA population and would not compromise the achievement of conservation objective attribute targets relating to the maintenance of the SPA non-breeding population.
		Red-throated diver	OECC	A review of disturbance impacts from vessels (Fliessbach <i>et al.</i>, 2019) was used to inform the project-only assessment (Volume 5, NIS Addendum (Part 1), Section 2.5), which concludes that the impacts were of a negligible proportion of the SPA population. In relation to the Conservation Objectives (Table 3-10), a conclusion was therefore drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in-combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. No other relevant projects screened in to in-combination assessment (Table 3-1) are within the conservative maximum potential vessel disturbance distances for red-throated diver of 2 km to The Murrough SPA. It is therefore assessed that no other projects will meaningfully contribute to in situ in-combination disturbance and displacement impacts with construction phase works within the OECC and intertidal landfall area. In-combination construction phase disturbance and displacement impacts to this SPA SCI are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-10. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of construction phase disturbance and displacement impacts from the presence of infrastructure and construction activities within the OECC and intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-10.
		Herring gull, black-headed gull, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, wigeon	OECC intertidal landfall	Project-only construction phase impacts arising from disturbance and displacement within the OECC landfall area are considered to affect a negligible proportion of the SPA SCI populations, if present in the South Dublin Bay area on an <i>ex situ</i> basis. Seasonal restrictions in South Dublin Bay will require that construction does not take place within intertidal areas between September and March, inclusive. Night-time timing restrictions require that no works are to be undertaken between mid-July and August during the dawn and dusk crepuscular periods or at night, when tern species are likely to be roosting in the intertidal zone. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Furthermore no other projects are anticipated to construct within the South Dublin Bay area and as such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-10.
	O&M	All	Array site	<i>ex situ</i> disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the SPA. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-10.
		Red-throated diver	Array site	Two other relevant projects screened in to in-combination assessment (Table 3-1) are within the conservative maximum potential disturbance or displacement distance for red-throated diver of 10 km to The Murrough SPA; Dublin Array OWF (c.2.4km to the north-

			east of the SPA) and Arklow Extension OWF (c. 8.0km to the south-south-east of the SPA). These projects consequently may contribute alongside CWP to in-combination displacement effects to divers within the SPA. Referring to the Dublin Array assessment, estimated operational phase displacement mortality by Dublin Array OWF to red-throated diver within The Murrough SPA (based on an SPA population of 131 individuals; and assuming an even distribution of individuals throughout the SPA area, 52% displacement within 10km of the array and 1% mortality) is 0.23 individuals (Dublin Array, 2025). As noted previously, no estimate of impacts to red-throated diver within The Murrough SPA are provided in the NIS of Arklow Extension OWF. In-combination displacement mortality calculated as the sum of the revised CWP project only displacement impact to the SPA (0.051 individuals per annum (Volume 5, NIS Addendum (Part 1), Section 2.5) and the published impact values of the two other relevant projects, is therefore calculated to be 0.281 individuals per annum. This very low in-combination mortality, much less than one individual per annum, is considered negligible in relation to the SPA population and would not compromise the achievement of conservation objective attribute targets relating to the maintenance of the SPA non-breeding population.
	Red-throated diver	OECC	A review of disturbance impacts from vessels (Fliessbach <i>et al.</i>, 2019) was used to inform the project-only assessment (Volume 5, NIS Addendum (Part 1)), Section 2.5, which concludes that the impacts were of a negligible proportion of the SPA population. In relation to the Conservation Objectives (Table 3-10), a conclusion was therefore drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in-combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. No other relevant projects screened in to in-combination assessment (Table 3-1) are within the conservative maximum potential vessel disturbance distances for red-throated diver of 2 km to The Murrough SPA. It is therefore assessed that no other projects will meaningfully contribute to in situ in-combination disturbance and displacement impacts with operation and maintenance phase works within the OECC and intertidal landfall area. In-combination operation and maintenance phase disturbance and displacement impacts to this SPA SCI are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-10. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of operation and maintenance phase disturbance and displacement impacts from the presence of infrastructure and construction activities within the OECC and intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-10.
	Herring gull, black-headed gull, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, wigeon	OECC intertidal landfall	Project-only operation and maintenance phase disturbance and displacement impacts within the intertidal landfall area represent a negligible proportion of <i>ex situ</i> intertidal waterbird SCI habitat use areas during breeding, migration and / or wintering periods. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no mechanism for disturbance or displacement to waterbird SCIs under normal operation. Occasional maintenance actions may require some activities which illicit disturbance responses from waterbirds along the buried infrastructure during this phase of the project, however the short temporal duration and small scale of any such activities is considered to be negligible relative to the habitat areas available to seabird SCIs on an <i>ex situ</i> basis. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprints of disturbance and displacement inducing activities within the SPA arising from the activities of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only disturbance and displacement footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-10.

Changes in prey availability	Construction	Herring gull, black-headed gull, red-throated diver, little tern	Array site OECC	Project-only construction phase impacts arising from changes in prey availability within the array site and OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical seabird foraging areas. Impacts to seabird prey species from array site and OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area and OECC with regard to SCI Conservation Objectives stated in Table 3-10.
		Herring gull, black-headed gull, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, wigeon	OECC intertidal landfall	Project-only construction impacts arising from changes in prey availability within the intertidal segment of the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of habitats available to the prey species of intertidal waterbird SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The impact footprints of changes in prey availability arising from intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard, provided that developers apply similar seasonal restrictions on activities within this SPA. The in-combination total project-only changes in prey availability on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to habitat use extents of the SCIs. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-10.
	O&M	Herring gull, black-headed gull, red-throated diver, little tern	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves.

		Herring gull, black-headed gull, red-throated diver, little tern	OECC	Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-10. Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The <i>ex situ</i> areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-10.
		Herring gull, black-headed gull, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, wigeon	OECC intertidal landfall	Project-only operation and maintenance phase impacts arising from changes in prey availability within the intertidal segment of the OECC represent a negligible proportion of <i>ex situ</i> habitats available to the prey species of seabird SCIs. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to these SCIs. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to the prey species of intertidal waterbird SCIs under normal operation. Occasional maintenance activities may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however effects on prey species which inhabit intertidal substrate affected by such activities is considered to be negligible, relative to the habitat areas available to seabird SCIs. Furthermore, the rate of recoverability of intertidal habitats following any maintenance excavations is considered to be high, lasting several tidal cycles. Repopulation of any disrupted intertidal habitat by seabird prey species is considered to occur quickly. The magnitude of impacts to potentially sensitive intertidal waterbird prey species arising from the presence of an EMF around infrastructure cables are assessed as being very low. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The prey availability impact footprints of intertidal activities within South Dublin Bay in relation to other projects screened in for the in-combination assessment are considered similarly negligible in this regard. The in-combination total footprint of changes in prey availability for project-only, when considered alongside all other projects screened in to the in-combination assessment of this impact, is therefore considered to be negligible in relation to seabird prey species' habitat use extents, and by extension to the habitat use areas available to the SCIs themselves. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-10.
Collision	O&M	Herring gull	Array site	Herring gull from The Murrough SPA may pass through the array site during the non-breeding period (when the herring gull population of the SPA forms the basis of the site's designation for this SCI) and, as such, may collide with operational WTGs. However, The Murrough SPA non-breeding season herring gull population constitutes only a negligible proportion of the regional herring gull non-breeding season population. During the baseline assessments to inform SPA designation, 506 herring gull were estimated to be using The Murrough SPA (5 year mean peak count for baseline period 1995/96 - 1999/2000; see NPWS, 2013). This

				equates to 0.27% of the regional herring gull non-breeding population (calculated as 187,090 individuals in Section 2.5 of Appendix 10.5 Ornithology Baseline characterisation report of the EIAR). As such, only a very small proportion of total non-breeding season herring gull predicted collision mortalities (0.27% of 2.393 = 0.006 collisions per non-breeding period) would be considered to relate to individuals associated with The Murrough SPA. Project-only collision impacts to the herring gull SCI of The Murrough SPA are assessed to be negligible (a total of 0.006 individuals per non-breeding period [one mortality per 155 years] for array site Design Options A or B). No other projects screened in to in-combination assessment (Table 3-1) provide collision mortality impact estimates relating to the Murrough SPA and, as such the combined collision mortality to the herring gull SCI of this SPA from those other projects is considered to be negligible. It is considered that the negligible project-only contribution to in-combination collision impacts combined with any negligible impacts associated with other projects listed in Table 3-1 to this SCI of The Murrough SPA cannot contribute to AESI in such a way as to adversely affect the Conservation Objective of the SPA to maintain the favourable conservation condition of the SCI. As such, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-10.
		Black-headed gull, red-throated diver, little tern		Project-only collision impacts to these SCIs are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. In the absence of collision mortality from Dublin Array and North Irish Sea Array OWFs, it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs of The Murrough SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-10.
		Herring gull, black-headed gull, whooper swan, light-bellied brent goose, Greenland white-fronted goose, greylag goose, wigeon		Project-only collision impacts to these SCIs are assessed to be negligible on the basis that estimated collision mortalities were very low. The risk of collision to migratory wildfowl and wader SCIs is considered to be negligible when project-only impacts are considered, primarily due to the likelihood that such species will tend to fly around, rather than through, the operational array site (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the combining the collision mortality estimates from projects listed in Table 3-1 these are not available or provided; however it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-10.

Breeding Seabird SPAs (Non-overlapping)

3.6 Wicklow Head SPA (IE004127)

24. This SPA is designated in relation to the following SCI which has been screened in for consideration within the NIS: kittiwake. A summary of the in-combination assessment is provided in **Table 3-12**, with the details provided in **Table 3-13**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-12 Summary of adverse effects on site integrity (in-combination) - Wicklow Head SPA

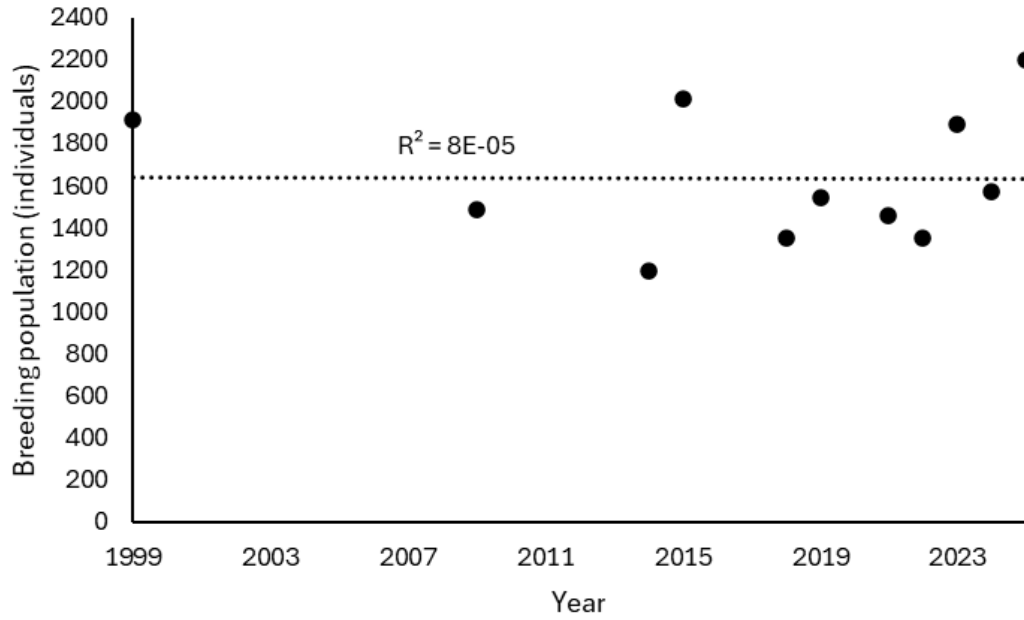
Objective: Attributes and targets	Predicted effect [Attribute(s) potentially affected]	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [kittiwake] the Favourable conservation condition of the SCI in Wicklow Head SPA, which is defined by the following list of attributes and targets: - Breeding population size – Long term SPA population trend is stable or increasing - Productivity rate – Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA – Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability – Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site – Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony – Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity – Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Kittiwake [A188]				
	Direct effects on habitat [1,4]	Section 4.4 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.			No AESI

Table 3-13 In-combination assessment of adverse effects on site integrity for Wicklow Head SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake	Array site	Project-only construction phase <i>ex situ</i> direct effects on habitat impacts within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-12.
			OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Kittiwake		and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-12 .
			Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS , the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-12 .
			OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS , the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-12 .
Changes in prey availability	Construction	Kittiwake	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-12 .
			OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible

Impact	Phase	SCI(s)	Area	In-combination assessment
				size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) of other projects impacts on prey availability are considered similarly negligible. This is on the basis that effects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-12.
	O&M	Kittiwake	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of on <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-12.
			OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site.

Impact	Phase	SCI(s)	Area	In-combination assessment
				The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-12.
Collision	O&M	Kittiwake	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to kittiwake from Wicklow Head SPA as a result of the operational infrastructure of the proposed CWP project and in-combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 8.043 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.574 individuals (7.137%). The in-combination impact equates to a predicted increase to the baseline mortality of the Wicklow Head SPA breeding kittiwake population of 4.270%, of which the proposed CWP project contributes 0.305%. Density independent PVA As the in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, a density independent PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.993 (and a CPS after the 25-year operational period of 0.825) [Full details of in-combination PVA inputs and outputs are provided in the CEA Ornithology Appendix of the CEA Report]. Wicklow Head SPA breeding population of kittiwake appeared to decrease from a total of 1,912 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – from surveys in 1999), to a total of 1,546 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – from surveys in 2019). However, when population trends are considered using all available colony count data from 1999 to 2025 (Graph 3.6.1, below), overall colony size has neither decreased nor increased over this period – instead fluctuating around 1,600 individuals.  Graph 3.6.1: Wicklow Head SPA kittiwake colony size 1999 – 2025 (Arklow, 2026) At Wicklow Head SPA, where the kittiwake breeding population appears to be relatively stable over recent decades, consideration of whether additional predicted impacts may meaningfully alter future population trajectories, a conservative CGR threshold of 0.995 is prudent in the determination of AESI. However, CGR values of collision impacts to the kittiwake SCI of Wicklow Head SPA from the in-combination scenario (i.e., the CWP Project plus Tier 1 projects) are estimated to be 0.993. As such, density independent PVA model outputs, although very close, do not meet the stated threshold levels which are appropriate to form a robust conclusion of no AESI.

Impact	Phase	SCI(s)	Area	In-combination assessment
				Density Dependent PVA In this circumstance, as more simple and inherently conservative density independent PVA models do not incorporate compensatory density dependence relationships, these are likely to be overly precautionary. Supplementary PVA models were therefore undertaken that incorporate a range of feasible compensatory density dependence scenarios, but were otherwise the same as the density independent PVAs. Further information relating to these supplementary density dependent PVA models is provided in the CEA Ornithology Appendix of the CEA Report with the full methodology for this approach provided in Section 2.1.2 of Appendix 4 Population Viability Analysis in Volume 7 of the original NIS. For density dependent PVAs the most appropriate counterfactual to consider when assessing the potential for impacts to compromise achieving the conservation objective attributes related to population size is the counterfactual of population size (CPS), i.e the size of the impacted population in comparison to the size of the unimpacted population after the 25-year operational period for the Project. The resultant density dependent PVA outputs provided median CPS values ranging from 0.838 for the weakest density dependence effects modelled, to 0.958 for the strongest density dependence effects modelled. This equates to impacted populations being estimated as 4.2% to 16.2% smaller than unimpacted populations at the end of the Project's 25-year operational period. For density dependence parameters which are the most biologically realistic, the CPS value after 25 years of impact is 0.895, which equates to the impacted population being 10.5% smaller than the unimpacted population. This small reduction in counterfactual population size by the end of the operational period of the project, particularly in the context of recent studies which highlight the very high levels of conservatism present within collision quantification models for kittiwake [for example, very high levels of micro and meso avoidance and no observed collisions from very large sample size, multi-year camera and radar monitoring at Aberdeen OWF (Skov <i>et al.</i>, 2025)], is not considered to significantly compromise or impede the conservation objective attribute targets relating to breeding population size. Effects of Immigration Further evidence that in-combination collision impacts are unlikely to compromise conservation objective attributes relating to breeding population size comes from breeding productivity data which has been collected annually at Wicklow Head SPA since 2018. These data demonstrate that average productivity values for the Wicklow Head SPA breeding colony (0.506 ± 0.305 chicks fledged per pair; NPWS, 2024) are below those required for the population to maintain itself (c.0.8 chicks fledged per pair, Coulson, 2017). This indicates that the stable population trajectory observed at this colony is likely a result of net immigration of breeding adults. Using the Natural England PVA tool, when this low productivity value is considered alongside national average kittiwake survival rates (Horswill and Robinson, 2015), baseline populations would be predicted to decrease by approximately 1.6% per annum. For a colony the size of Wicklow Head SPA, fluctuating around 1,600 individuals, this would suggest that immigration of approximately 26 breeding individuals would be needed each year to maintain a stable population size over time. If immigration is required to maintain the favourable conservation condition of the kittiwake SCI of Wicklow Head SPA , it follows that the Conservation Objective attribute target that the 'Long term SPA population size is stable or increasing' needs to consider the source of immigration. In-combination impacts should therefore not inhibit immigration occurring. The most likely sources of immigration to Wicklow Head SPA are the surrounding colonies of Howth Head, Ireland's Eye, Lambay Island, and Saltee Islands (Coulson and Neve De Mevergnies, 1992; Ponchon <i>et al.</i>, 2017). Since in-combination collision impacts are assessed not to adversely affect the sizes or productivities of those colonies, it can be concluded that in-combination impacts do not inhibit the continuation of net immigration to Wicklow Head SPA. As such, in-combination collision impacts would not compromise demographic processes which drive the observed long-term stability of the Wicklow Head SPA kittiwake population. Conclusion Although the most conservative density independent PVA models cannot be used to robustly conclude no AESI to Wicklow Head SPA as a result of in-combination collision impacts to the kittiwake SCI (i.e. density independent PVA CGR output values are < 0.995, see Table 18 of CEA Ornithology Appendix of the CEA Report), a robust conclusion of no AESI can, nonetheless, be drawn after consideration of two additional factors: Firstly, there is evidence that compensatory density dependence will be acting to buffer the population from changes due to additional mortality, which is not addressed by the (standard) density independent models. Models that incorporate these compensatory effects indicate that population consequences of in-combination impacts are likely to be small and would not significantly compromise or impede conservation objective attribute targets relating to breeding population size. Secondly, it is likely that the existing stable population at Wicklow Head SPA is being maintained by net immigration from other colonies and, for those source colonies, in-combination impacts are assessed not to result in an AESI. Consequently, there is no in-combination AESI to Wicklow Head SPA as a result of collision impacts to the breeding kittiwake SCI with regard to the Conservation Objectives stated in Table 3-12.

3.7 Howth Head Coast SPA (IE004113)

25. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: kittiwake. A summary of the in-combination assessment is provided in **Table 3-14**, with the details provided in **Table 3-15**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-14 Summary of adverse effects on site integrity (in-combination) - Howth Head Coast SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [kittiwake] the Favourable conservation condition of the SCI in Howth Head SPA, which is defined by the following list of attributes and targets: - Breeding population size – Long term SPA population trend is stable or increasing - Productivity rate – Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA – Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability – Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site – Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony – Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity – Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Kittiwake [A188]				
	Direct effects on habitat [1,4]	Section 4.5 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI

Table 3-15 In-combination assessment of adverse effects on site integrity for Howth Head Coast SPA

Impact	Phase	SCI	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake	Array site	Project-only construction phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-14.
			OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is

Impact	Phase	SCI	Area	In-combination assessment
				assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-14 .
	O&M	Kittiwake	Array site	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-14.
			OECC	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the OECC represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-14.
Changes in prey availability	Construction	Kittiwake	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-14.
			OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	SCI	Area	In-combination assessment
	O&M	Kittiwake		When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-14.
			Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-14.
			OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-14.

Impact	Phase	SCI	Area	In-combination assessment
Collision	O&M	Kittiwake	Array site	A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to kittiwake from Howth Head Coast SPA as a result of the operational infrastructure of the proposed CWP project and in-combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 8.568 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.368 individuals (4.295%). The in-combination impact equates to a predicted increase to the baseline mortality of the Howth Head Coast SPA breeding kittiwake population of 1.655%, of which the proposed CWP project contributes 0.071%. As the in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.997 (and a CPS after the 25-year operational period of 0.929) [Full details of in-combination PVA inputs and outputs are provided in the CEA Ornithology Appendix of the CEA Report]. The Howth Head Coast SPA breeding population of kittiwake decreased from a total of 4,658 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 3,546 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – from surveys in 2018) – a decline of 23.87%. At Howth Head Coast SPA, where the kittiwake breeding population appears to be decreasing, consideration whether additional impacts predicted may meaningfully increase the existing population decline a conservative CGR threshold of 0.995 is prudent in the determination of AESI. As CGR values of in-combination collision impacts to the kittiwake SCI of Howth Head Coast SPA exceed 0.995, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-14.

3.8 Ireland's Eye SPA (IE004117)

26. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: kittiwake, cormorant, herring gull, guillemot, razorbill. A summary of the in-combination assessment is provided in **Table 3-16**, with the details provided in **Table 3-17**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-16 Summary of adverse effects on site integrity (in-combination) - Ireland's Eye SPA

Objective: Attributes and Targets	Predicted effect [Attribute(s) potentially affected]	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [kittiwake, herring gull, cormorant] / maintain [guillemot, razorbill] the Favourable conservation condition of the SCI in Ireland's Eye SPA, which is defined by the following list of attributes and targets: - Breeding population size – Long term SPA population trend is stable or increasing - Productivity rate – Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA – Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability – Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site – Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony – Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity – Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Kittiwake [A188]				
	Direct effects on habitat [1,4]	Section 4.6 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Herring gull [A184]				
	Direct effects on habitat [1,4]	Section 4.6 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Guillemot [A199]				
	Direct effects on habitat [1,4]	Section 4.6 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Razorbill [A200]				
	Direct effects on habitat [1,4]	Section 4.6 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Cormorant [A117]				
	Direct effects on habitat [1,4]	Section 4.6 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement [1,2,4,6]		None	No change	No AESI
	Changes in prey availability 1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2, 3]	See high-level assessment in Section 3.1.			No AESI

Table 3-17 In-combination assessment of adverse effects on site integrity for Ireland's Eye SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake, herring gull, guillemot, razorbill, cormorant	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-16.
		Kittiwake, herring gull, guillemot, razorbill, cormorant	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-16.
	O&M	Kittiwake, herring gull, guillemot, razorbill, cormorant	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-16.
		Kittiwake, herring gull, guillemot, razorbill, cormorant	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects

Impact	Phase	SCI(s)	Area	In-combination assessment
				and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-16.
Disturbance and displacement	Construction	Guillemot – Indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to guillemot from Ireland's Eye SPA as a result of the construction of the proposed CWP project and in -combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 7.849 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.439 individuals (5.593%). The in-combination impact equates to a predicted increase to the baseline mortality of the Ireland's Eye SPA breeding guillemot population of 2.918%, of which the proposed CWP project contributes 0.163%. Although total impact is estimated to result in an increase to SPA baseline mortality rates which exceeds the 1% threshold used to determine the requirement for PVA for operational phase impacts, as the duration of the construction phase impacts is short in relation to those during the operational phase (less than three years, compared to 25 years), this threshold is not considered appropriate for use in the assessment of construction phase impacts. Due to the limited duration of the construction phase, potential in-combination displacement mortality to the SPA breeding population resulting in less than a 3% increase to baseline mortality rates over a period of less than three years, is not considered to compromise CO attributes relating to long term population maintenance. Consequently, there is assessed to be no in-combination AESI as a result of construction phase disturbance and displacement impacts with regard to SCI Conservation Objectives stated in Table 3-16.
		Razorbill – Indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to razorbill from Ireland's Eye SPA as a result of the construction of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 1.933 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.163 individuals (8.432%). The in-combination impact equates to a predicted increase to the baseline mortality of the Ireland's Eye SPA breeding razorbill population of 1.151%, of which the proposed CWP project contributes 0.097%. Although total impact is estimated to result in an increase to SPA baseline mortality rates which exceeds the 1% threshold used to determine the requirement for PVA for operational phase impacts, as the duration of the construction phase impacts is very short in relation to those during the operational phase (less than three years, compared to 25 years), this threshold is not considered appropriate for use in the assessment of construction phase impacts. Due to the limited duration of the construction phase, potential in-combination displacement mortality to the SPA breeding population resulting in less than a 1.5% increase to baseline mortality rates over a period of less than three years, is not considered to compromise CO attributes relating to long term population maintenance. Consequently, there is assessed to be no in-combination AESI as a result of construction phase disturbance and displacement impacts with regard to SCI Conservation Objectives stated in Table 3-16.
		Cormorant- Indirect habitat loss	Array site	Ireland's Eye SPA is the only designated site with a breeding cormorant SCI which lies within this species' mean maximum (+1 SD) foraging range from the array site (33.9 km; Woodward <i>et al.</i>, 2019). Although cormorant are insensitive to disturbance and displacement from the presence of array site infrastructure, they are considered to be moderately sensitive to disturbance from vessel movements. As disturbance areas of cormorant around vessels are typically small (i.e., mean area 0.209 km² calculated from published disturbance response range – Fließbach <i>et al.</i>, 2019; See Section 4.6 of NIS Volume 5, Part 2, with only a small part of the array site within the theoretical foraging range of breeding cormorant from Ireland's Eye SPA (i.e., on an <i>ex situ</i> basis) and very

Impact	Phase	SCI(s)	Area	In-combination assessment
				few cormorant recorded within the array site during baseline surveys, the Ireland's Eye SPA cormorant SCI is assessed to experience only negligible disturbance and displacement impacts from construction phase vessel activity within the array site. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Cormorant breeding within Ireland's Eye SPA may also experience <i>ex situ</i> disturbance and displacement from vessel activity associated with those other projects listed in which are also within this species' mean maximum (+ 1 SD) foraging range, in particular from construction phase activity associated with the Dublin Array and North Irish Sea Array OWFs. Potential disturbance areas associated with construction vessel activity within these sites will also be negligible in relation to the foraging range extent of cormorant from Ireland's Eye SPA. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement to the cormorant SCI of Ireland's Eye SPA from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-16.
		Guillemot, razorbill, cormorant – Indirect habitat loss	OECC	Project-only construction phase impacts arising from disturbance and displacement within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of habitats available to seabird SCIs of Ireland's Eye SPA during breeding, migration and wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. These SCIs of Ireland's Eye SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs of Ireland's Eye SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-16.
	O&M	Guillemot – indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to guillemot from Ireland's Eye SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 8.288 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.878 individuals (10.594%). This in-combination impact equates to a predicted increase to the baseline mortality of the Ireland's Eye SPA breeding guillemot population of 3.081%, of which the proposed CWP project contributes 0.326%. As in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.998 (and a CPS after the 25-year operational period of 0.947) [Full details of in-combination PVA inputs and outputs are provided in CEA Ornithology Appendix of the CEA Report]. The Ireland's Eye SPA breeding population of guillemot increased from a total of 2,191 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 4410 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2015) – an increase of 101.28%. In relation to a CGR of 0.998 to an increasing population, in-combination operation and maintenance phase disturbance and displacement impacts to the guillemot SCI of Ireland's Eye SPA are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-16. Specifically, this small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats.

Impact	Phase	SCI(s)	Area	In-combination assessment
				Consequently, there is assessed to be no AESI as a result of in-combination operation and maintenance phase disturbance and displacement impacts from the presence of infrastructure and associated operational activities within the array site with regard to SCI Conservation Objectives stated in Table 3-16 .
		Razorbill – indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to razorbill from Ireland's Eye SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 2.096 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.326 individuals (15.533%). The in-combination impact equates to a predicted increase to the baseline mortality of the Ireland's Eye SPA breeding razorbill population of 1.248%, of which the proposed CWP project contributes 0.194%. As the in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.999 (and a CPS after the 25-year operational period of 0.962) [Full details of in-combination PVA inputs and outputs are provided in the CEA Ornithology Appendix of the CEA Report]. The Ireland's Eye SPA breeding population of razorbill increased from a total of 522 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 1,600 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2015) – an increase of 206.51%. In relation to a CGR of 0.999 to an increasing population, in-combination operation and maintenance phase disturbance and displacement impacts to the razorbill SCI of Ireland's Eye SPA are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-16. Specifically, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of operation and maintenance phase disturbance and displacement impacts from the presence of infrastructure and associated operational activities within the array site with regard to SCI Conservation Objectives stated in Table 3-16.
		Cormorant – indirect habitat loss	Array site	Ireland's Eye SPA is the only designated site with a breeding cormorant SCI which lies within this species' mean maximum (+1 SD) foraging range from the Array site (33.9 km; Woodward <i>et al.</i>, 2019). Although cormorant are insensitive to disturbance and displacement from the presence of array site infrastructure, they are considered to be moderately sensitive to disturbance from vessel movements. As disturbance areas of cormorant around vessels are typically small (i.e., mean area 0.209 km² calculated from published disturbance response range – Fließbach <i>et al.</i>, 2019; See Section 4.6 of NIS Volume 5, Part 2, with only a small part of the array site within the theoretical foraging range of breeding cormorant from Ireland's Eye SPA (i.e., on an <i>ex situ</i> basis) and very few cormorant recorded within the array site during baseline surveys, the Ireland's Eye SPA cormorant SCI is assessed to experience only negligible disturbance and displacement impacts from operation and maintenance phase vessel activity within the array site. Vessel activity during this phase of the project is expected to occur at lower levels than during the construction phase of the project. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Cormorant breeding within Ireland's Eye SPA may also experience disturbance and displacement from vessel activity associated with those other projects listed in Table 3-1 above, which are also within this species' mean maximum (+ 1 SD) foraging range during the operation and maintenance phase of the CWP Project (in particular from operational phase activity associated with the Dublin Array and North Irish Sea Array OWFs). Potential disturbance areas associated with vessel activity within these sites will also be negligible in relation to the foraging range extent of cormorant from Ireland's Eye SPA. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement to the cormorant SCI of Ireland's Eye SPA from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-16.
		Guillemot, razorbill, cormorant – indirect habitat loss	OECC	Potential for disturbance and displacement within the OECC on an <i>ex situ</i> basis during the operation and maintenance phase of the project is limited to works associated with routine monitoring activity and maintenance or repair events over the operational lifetime of

Impact	Phase	SCI(s)	Area	In-combination assessment
				the project. Project-only operation and maintenance phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of <i>ex situ</i> habitats available to seabird SCIs of Ireland's Eye SPA during breeding, migration and wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. These SCIs of Ireland's Eye SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 above, which are also within these species' mean maximum (+ 1 SD) foraging range during the operation and maintenance phase of the CWP Project. It is, however, considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs of Ireland's Eye SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-16.
Changes in prey availability	Construction	Kittiwake, herring gull, guillemot, razorbill, cormorant	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-16.
		Kittiwake, herring gull, guillemot, razorbill, cormorant	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-16.
	O&M	Kittiwake, herring gull, guillemot, razorbill, cormorant	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration

Impact	Phase	SCI(s)	Area	In-combination assessment
				of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-16.
		Kittiwake, herring gull, guillemot, razorbill, cormorant	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-16.
Collision	O&M	Kittiwake	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to kittiwake from Ireland's Eye SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 2.401 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.082 individuals (3.415%). The in-combination impact equates to a predicted increase to the baseline mortality of the Ireland's Eye SPA breeding kittiwake population of 2.051%, of which the proposed CWP project contributes 0.070%. As the in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.996 (and a CPS after the 25-year operational period of 0.910) [Full details of in-combination PVA inputs and outputs are provided in the CEA Ornithology Appendix of the CEA Report].

Impact	Phase	SCI(s)	Area	In-combination assessment
				The Ireland's Eye SPA breeding population of kittiwake decreased from a total of 1,882 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 910 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – from surveys in 2015), and subsequently to 802 individuals (from surveys in 2016) – declines of 51.65% and 57.39%, respectively. At Ireland's Eye SPA, where the kittiwake breeding population appears to be decreasing, consideration is required as to whether additional predicted impacts may meaningfully increase the existing population decline a conservative CGR threshold of 0.995 is prudent in the determination of AESI. As CGR values of collision impacts to the kittiwake SCI of Ireland's Eye SPA exceed 0.995, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-16.
		Herring gull	Array site	A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to herring gull from Ireland's Eye SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 2.894 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.814 individuals (28.127%). This in-combination impact equates to a predicted increase to the baseline mortality of the Ireland's Eye SPA breeding herring gull population of 2.741%, of which the proposed CWP project contributes 0.771%. The in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.994 (and a CPS after the 25-year operational period of 0.868) [Full details of in-combination PVA inputs and outputs are provided in the CEA Ornithology Appendix of the CEA Report]. The Ireland's Eye SPA breeding population of herring gull increased from a total of 492 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 636 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2018) – an increase of 29.27%. In relation to a CGR of 0.994 to an increasing population, in-combination collision impacts to the herring gull SCI of Ireland's Eye SPA are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-16. Specifically, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-16.
		Cormorant	Array site	Project-only collision impacts to this SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Ireland's Eye SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-16.

3.9 Lambay Island SPA (IE004069)

27. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, cormorant and greylag goose. A summary of the in-combination assessment is provided in **Table 3-18**, with the details provided in **Table 3-19**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-18 Summary of adverse effects on site integrity (in-combination) - Lambay Island SPA

Objective: Attributes and Targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [kittiwake, fulmar, herring gull, puffin, cormorant, shag] / maintain [lesser black-backed gull, guillemot, razorbill] the Favourable conservation condition of the SCI in Lambay Island SPA, which is defined by the following list of attributes and targets: 1. Breeding population size – Long term SPA population trend is stable or increasing 2. Productivity rate – Sufficient to maintain a stable or increasing population 3. Distribution: extent of available nesting options within the SPA – Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population 4. Forage spatial distribution, extent, abundance and availability – Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 5. Disturbance at the breeding site – Disturbance occurs at levels that do not significantly impact on birds at the breeding site 6. Disturbance at areas ecologically connected to the colony – Disturbance occurs at levels that do not significantly impact on breeding population 7. Barriers to connectivity – Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Kittiwake [A188]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Fulmar [A009]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]		See high-level assessment in Section 3.1.		
	Herring gull [A184]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Lesser black-backed gull [A183]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Guillemot [A199]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Razorbill [A200]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Puffin [A204]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI

Objective: Attributes and Targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
	Changes in prey availability [1,4]	Addendum (Part 1)	None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
	Cormorant [A017]				
	Direct effects on habitat [1,4]	Section 4.7 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
	Shag [A018] (receptor added as SCI in 2024 update of Conservation Objectives)				
	Direct effects on habitat [1,4]	Section 4.7.10 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
	Greylag goose [A043] – See Section 3.41				

Table 3-19 In-combination assessment of adverse effects on site integrity for Lambay Island SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-18.
		Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, cormorant, shag	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other) projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-18.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Greylag goose	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
		Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin	Array site	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-18.
		Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, cormorant, shag	OECC	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the OECC represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-18.
		Greylag goose	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 4.42 of NIS Volume 5 Part 2 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
Disturbance and displacement	Construction	Guillemot – Indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to guillemot from Lambay Island SPA as a result of the construction of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 77.671 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 4.751 individuals (6.117%). The in-combination impact equates to a predicted increase to the baseline mortality of the Lambay Island SPA breeding guillemot population of 2.123%, of which the proposed CWP project contributes 0.130%. Although total impact is estimated to result in an increase to SPA baseline mortality rates which exceeds the 1% threshold used to determine the requirement for PVA for operational phase impacts, as the duration of the construction phase impacts is very short in relation to those during the operational phase (less than three years, compared to 25 years), this threshold is not considered appropriate for use in the assessment of construction phase impacts. Due to the limited duration of the construction phase, potential in-combination displacement mortality to the SPA breeding population resulting in less than a 3% increase to baseline mortality rates over a period of less than three years, is not considered to compromise CO attributes relating to long term population maintenance. Consequently, there is assessed to be no in-combination AESI as a result of construction phase disturbance and displacement impacts with regard to SCI Conservation Objectives stated in Table 3-18.

Impact	Phase	SCI(s)	Area	In-combination assessment
		Razorbill – Indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to razorbill from Lambay Island SPA as a result of the construction of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 8.162 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.592 individuals (7.253%). The in-combination impact equates to a predicted increase to the baseline mortality of the Lambay Island SPA breeding razorbill population of 1.057%, of which the proposed CWP project contributes 0.077%. Although total impact is estimated to result in an increase to SPA baseline mortality rates which exceeds the 1% threshold used to determine the requirement for PVA for operational phase impacts, as the duration of the construction phase impacts is very short in relation to those during the operational phase (less than three years, compared to 25 years), this threshold is not considered appropriate for use in the assessment of construction phase impacts. Due to the limited duration of the construction phase, potential in-combination displacement mortality to the SPA breeding population resulting in less than a 1.5% increase to baseline mortality rates over a period of less than three years, is not considered to compromise CO attributes relating to long term population maintenance. Consequently, there is assessed to be no in-combination AESI as a result of construction phase disturbance and displacement impacts with regard to SCI Conservation Objectives stated in Table 3-18.
		Puffin – indirect habitat loss and barrier effects	Array site	Project-only disturbance and displacement impacts associated with construction phase activities within the array site on an <i>ex situ</i> basis to the puffin SCI of Lambay Island SPA are assessed to be negligible (a total of 0.008 individuals per annum [one mortality per 125 years], representing a 0.031% increase to SPA mortality rates for evidence-led central value displacement figures – see Section 4.7 NIS Volume 5, Part 2. It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Lambay Island SPA cannot possibly contribute to AESI as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Lambay Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Lambay Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-18.
		Greylag goose – barrier effects	Array site	The in-combination assessment for this species is addressed in Section 3.41: Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.
		Guillemot, razorbill, puffin, cormorant, shag – indirect habitat loss	OECC	Project-only construction phase impacts arising from disturbance and displacement within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of habitats available to seabird SCIs of Lambay Island SPA during breeding, migration and wintering periods (Section 4.7 of NIS Volume 5, Part 2 and Section 4.7 of NIS addendum Part 1). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.7 of NIS Volume 5, Part 2 and Section 4.7 of NIS addendum Part 1, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although these SCIs of Lambay Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to

Impact	Phase	SCI(s)	Area	In-combination assessment
				these SCIs of Lambay Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-18 .
		Greylag goose – indirect habitat loss	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 7.40: Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
	O&M	Guillemot – Indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to guillemot from Lambay Island SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 82.422 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 9.502 individuals (11.528%). The in-combination impact equates to a predicted increase to the baseline mortality of the Lambay Island SPA breeding guillemot population of 2.253%, of which the proposed CWP project contributes 0.260%. As the in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.998 (and a CPS after the 25-year operational period of 0.961) [Full details of in-combination PVA inputs and outputs are provided in the CEA Ornithology Appendix of the CEA Report]. The Lambay Island SPA breeding population of guillemot remained approximately stable between surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002) and surveys for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2015), with a breeding population of 60,754 individuals for the former and 59,983 for the later (a decline of 1.27%). In relation to a CGR of 0.998 to a stable population, in-combination operation and maintenance phase disturbance and displacement impacts to the guillemot SCI of Lambay Island SPA are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-18. Specifically, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of operation and maintenance phase disturbance and displacement impacts from the presence of infrastructure and associated operational activities within the array site with regard to SCI Conservation Objectives stated in Table 3-18.
		Razorbill – Indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to razorbill from Lambay Island SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 8.754 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 1.184 individuals (13.525%). The in-combination impact equates to a predicted increase to the baseline mortality of the Lambay Island SPA breeding razorbill population of 1.134%, of which the proposed CWP project contributes 0.153%. As the in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.999 (and a CPS after the 25-year operational period of 0.965) [Full details of in-combination PVA inputs and outputs are provided in the CEA Ornithology Appendix of the CEA Report]. The Lambay Island SPA breeding population of razorbill increased from a total of 4,337 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 7,353 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2015) – an increase of 69.54%.

Impact	Phase	SCI(s)	Area	In-combination assessment
				In relation to a CGR of 0.999 to an increasing population, in-combination operation and maintenance phase disturbance and displacement impacts to the razorbill SCI of Lambay Island SPA are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-18. Specifically, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of operation and maintenance phase disturbance and displacement impacts from the presence of infrastructure and associated operational activities within the array site with regard to SCI Conservation Objectives stated in Table 3-18.
		Puffin – indirect habitat loss and barrier effects	Array site	Project-only disturbance and displacement impacts associated with operation and maintenance phase activities on an <i>ex situ</i> basis within the array site to the puffin SCI of Lambay Island SPA are assessed to be negligible (a total of 0.017 individuals per annum [one mortality per 58.8 years], representing a 0.063% increase to SPA mortality rates for evidence-led central value displacement figures – see Section 4.7 of NIS Volume 5, Part 2). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Lambay Island SPA cannot possibly contribute to AESI as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Lambay Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Lambay Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-18.
		Greylag goose – barrier effects	Array site	The in-combination assessment for this species is addressed in Section 2: Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.
		Guillemot, razorbill, puffin, cormorant, shag – indirect habitat loss	OECC	Potential for disturbance and displacement within the OECC on an <i>ex situ</i> basis during the operational phase of the project is limited to works associated with routine monitoring activity and maintenance or repair events over the operational lifetime of the project. Project-only operation and maintenance phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of habitats available to seabird SCIs of Lambay Island SPA during breeding, migration and wintering periods (Section 4.7 of NIS Volume 5, Part 2 and Section 4.7 of NIS addendum Part 1). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.7 of NIS Volume 5, Part 2 and Section 4.7 of NIS addendum Part 1, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although these SCIs of Lambay Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within these species' mean maximum (+ 1 SD) foraging range during the operation and maintenance phase of the CWP Project. It is, however, considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs of Lambay Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from operation and maintenance phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-18.
		Greylag goose – indirect habitat loss	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 4.42 of NIS Volume 5, Part 2: Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.

Impact	Phase	SCI(s)	Area	In-combination assessment
Changes in prey availability	Construction	Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-18.
		Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, cormorant, shag	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-18.
		Greylag goose	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
	O&M	Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site.

Impact	Phase	SCI(s)	Area	In-combination assessment
				The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-18.
		Kittiwake, fulmar, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, cormorant, shag	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-18.
		Greylag goose	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 of NIS Volume 5, Part 2: Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.
Collision	O&M	Kittiwake	Array site	A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to kittiwake from Lambay Island SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 12.541 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.531 individuals (4.234%). The in-combination impact equates to a predicted increase to the baseline mortality of the Lambay Island SPA breeding kittiwake population of 1.294%, of which the proposed CWP project contributes 0.055%. As the in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.998 (and a CPS after the 25-year operational period of 0.945) [Full details of in-combination PVA inputs and outputs are provided in CEA Ornithology Appendix of the CEA Report]. The Lambay Island SPA breeding population of kittiwake decreased from a total of 8,182 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 6,640 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – from surveys in 2015) – a decline of 18.85%. At Lambay Island SPA, where the kittiwake breeding population appears to be decreasing, consideration whether additional predicted impacts may meaningfully increase the existing population decline a conservative CGR threshold of 0.995 is to be prudent in the determination of AESI. As CGR values of collision impacts to the kittiwake SCI of Lambay Island SPA exceed 0.995, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-18.

Impact	Phase	SCI(s)	Area	In-combination assessment
		Herring gull	Array site	A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to herring gull from Lambay Island SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 7.327 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 1.697 individuals (23.161%). The in-combination impact equates to a predicted increase to the baseline mortality of the Lambay Island SPA breeding herring gull population of 2.436%, of which the proposed CWP project contributes 0.564%. As in-combination impact is estimated to result in an increase to SPA baseline mortality rates which exceeds 1%, PVA was undertaken to determine if such levels of impacts result in AESI by compromising CO attributes relating to long term population maintenance. The resultant PVA output values were a CGR of 0.995 (and a CPS after the 25-year operational period of 0.882) [Full details of in-combination PVA inputs and outputs are provided in CEA Ornithology Appendix of the CEA Report]. The Lambay Island SPA breeding population of herring gull decreased from a total of 3,612 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 1,812 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 –from surveys in 2015) – a decline of 49.83%. At Lambay Island SPA, where the herring gull breeding population appears to be decreasing, consideration is required as to whether additional impacts may meaningfully worsen population decline and a conservative CGR threshold of 0.995 is considered to be prudent in the determination of AESI. As CGR values of in-combination collision impacts to the herring gull SCI of Lambay Island SPA equal 0.995, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-18.
		Lesser black-backed gull	Array site	Project-only collision impacts to this SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that the negligible project-only contribution to in-combination collision mortality impacts to this SCI of Lambay Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-18.
		Greylag goose	Array site	The in-combination assessment for this species is addressed in NIS Volume 5, Part 2, Section 3.41: Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.

3.10 Rockabill SPA (IE004014)

28. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: common tern, Arctic tern, and purple sandpiper. A summary of the in-combination assessment is provided in **Table 3-20**, with the details provided in **Table 3-21**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-20 Summary of adverse effects on site integrity (in-combination) - Rockabill SPA

Objective:	Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Common tern [A193]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – Human activities should occur at levels that do not adversely affect the breeding common tern population	Direct effects on habitat [1]	Section 4.8 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
		Disturbance and displacement [1,2]		None	No change	No AESI
		Changes in prey availability [1,2,4]		None	No change	No AESI
		Collision [1,2]		None	No change	No AESI
		Introduction or spread of INNS [1,2,4]	See high-level assessment in Section 3.1 .			No AESI
		Arctic tern [A194]				
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – Human activities should occur at levels that do not adversely affect the breeding Arctic tern population	Direct effects on habitat [1]	Section 4.8 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
		Disturbance and displacement [1,2]		None	No change	No AESI
		Changes in prey availability [1,2,4]		None	No change	No AESI
		Collision [1,2]		None	No change	No AESI
		Introduction or spread of INNS [1,2,4]	See high-level assessment in Section 3.1 .			No AESI
		Roseate tern [A192]				
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance: apparently occupied nests (AONs) – No significant decline 2. Productivity rate: fledged young per breeding pair – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – Human activities should occur at levels that do not adversely affect the breeding roseate tern population	Collision [1,2]	Section 4.8 of Volume 5 - Part 2	None	No change	No AESI
Purple sandpiper [A148] – See Section 4.8 of Volume 5 Part 2, and NIS Addendum (Part 1)						

Table 3-21 In-combination assessment of adverse effects on site integrity for Rockabill SPA

Impact	Phase	SCI(s)	Area	In-combination Assessment
Direct effects on habitat	Construction	Common tern, Arctic tern	OEEC intertidal landfall	Project only construction phase direct effects on <i>ex situ</i> habitat impacts within the intertidal segment of the OEEC represent a negligible proportion of seabird SCI habitat use areas during breeding and / or migration periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on <i>ex situ</i> habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to SCIs habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal section of the OEEC during construction with regard to SCI Conservation Objectives stated in Table 3-20.

Impact	Phase	SCI(s)	Area	In-combination Assessment
		Purple sandpiper	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
	O&M	Common tern, Arctic tern	OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the intertidal section of the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding and / or migration periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-2) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on <i>ex situ</i> habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal section of the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-20.
		Purple sandpiper	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
Disturbance and displacement	Construction			<i>ex situ</i> project-only construction phase impacts arising from disturbance and displacement within the OECC intertidal landfall are considered to impact a negligible number of individuals of each SCI of this SPA during all seasons. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. These SCIs of may also experience disturbance and displacement from those other projects listed in Table 3-2, which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project. it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC intertidal landfall with regard to SCI Conservation Objectives stated in Table 3-20.
	O&M	Common tern, Arctic tern	OECC intertidal landfall	<i>ex situ</i> project-only operation and maintenance phase impacts arising from disturbance and displacement within the OECC intertidal landfall are considered to impact a negligible number of individuals of each SCI of this SPA during all seasons. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. These SCIs of may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project. it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from operation and maintenance phase activities within the OECC intertidal landfall with regard to SCI Conservation Objectives stated in Table 3-20.
	Construction	Purple sandpiper	Array site	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
		Purple sandpiper	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
	O&M	Purple sandpiper	Array site	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .

Impact	Phase	SCI(s)	Area	In-combination Assessment
		Purple sandpiper	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.
Changes in prey availability	Construction	Common tern, Arctic tern	OECC intertidal landfall	Project-only construction impacts arising from changes in prey availability within the intertidal segment of the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of habitats available to the prey species of breeding tern SCIs. Although project-only construction phase impacts to migratory and wintering intertidal waterbirds arising from changes in prey availability within the OECC intertidal landfall are considered to be mitigated for as per the seasonal timing restrictions implemented in order to minimise disturbance and displacement impacts, breeding tern SCIs are present in greatest numbers during the late summer to early autumn (i.e., during the period of construction works). Nevertheless, any residual direct effects on habitat are considered to represent a negligible proportion of SPA habitats available to breeding tern SCIs during the breeding and / or migration periods. Project-only direct effects on habitat are assessed also to be negligible (See NIS Volume 5, Part 2, Section 4.8). Given the high rate of recoverability of intertidal habitats, it is considered that the prey species of breeding tern SCIs would likely rapidly repopulate areas of disrupted intertidal habitat. Any residual impacts on prey availability are considered to represent a negligible proportion of SPA habitats available to breeding tern SCIs during breeding and / or migration periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The impact footprints of changes in prey availability arising from intertidal works of other projects screened in to in-combination assessment are considered similarly negligible in this regard, provided that developers apply similar seasonal restrictions on activities within this SPA. The in-combination total project-only changes in prey availability on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to habitat use extents of the SCIs. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-20.
			OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-20.
		Purple sandpiper	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.
	O&M	Common tern, Arctic tern	OECC intertidal landfall	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the intertidal segment of the OECC represent a negligible proportion of habitats available to the prey species of seabird SCIs. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to these SCIs. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to the prey species of intertidal waterbird SCIs under normal operation. Occasional maintenance activities may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however effects on prey species which inhabit intertidal substrate affected by such activities is considered to be negligible,

Impact	Phase	SCI(s)	Area	In-combination Assessment
				relative to the habitat areas available to seabird SCIs. Furthermore, the rate of recoverability of intertidal habitats following any maintenance excavations is considered to be high, lasting several tidal cycles. Repopulation of any disrupted intertidal habitat by seabird prey species is considered to occur quickly. The magnitude of impacts to potentially sensitive intertidal waterbird prey species arising from the presence of an EMF around infrastructure cables are assessed as being very low. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The prey availability impact footprints of intertidal activities within South Dublin Bay in relation to other projects screened in for the in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total footprint of changes in prey availability for project-only, when considered alongside all other projects screened in to the in-combination assessment of this impact, is therefore considered to be negligible in relation to seabird prey species' habitat use extents, and by extension to the habitat use areas available to the SCIs themselves. It is considered that the negligible project-only contribution to in-combination changes in prey availability impacts to these SPA SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC intertidal landfall area with regard to SCI Conservation Objectives stated in Table 3-20.
			OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the project effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-20.
		Purple sandpiper	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
Collision	O&M	Common tern	Array site	Project-only collision impacts to the common tern SCI of Rockabill SPA are assessed to be negligible (a total of 0.124 individuals per annum [one mortality per 8.1 years] for array site Design Option A and 0.111 individuals per annum [one mortality per 9 years] for array site Design Option B), representing a 0.026% or 0.023% increase to SPA mortality rates respectively – see Section 4.8 of Volume 5, Part 2 of the NIS. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality estimates to the common tern SCI of Rockabill SPA from other projects in Table 3-1 and in light of the apparent rapid increase in the breeding population of this SCI at this SPA (a 233% increase from 1,210 to 4,058 individuals between the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002) and surveys for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2016)), it is considered that any negligible project-only

Impact	Phase	SCI(s)	Area	In-combination Assessment
				contribution to in-combination collision impacts to this SCIs of Rockabill SPA cannot contribute to AESI in such a way as to adversely affect the Conservation Objective of the SPA to maintain the favourable conservation condition of the SCI. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-20.
		Arctic tern	Array site	Project-only collision impacts to this SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality estimates to the common tern SCI of Rockabill SPA from other projects in Table 3-1, it is considered that the negligible project-only contribution to in-combination collision mortality impacts to this SCI of Rockabill SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-20.
		Roseate tern	Array Site	Project-only collision impacts to this SCI are assessed to be negligible as flight activity recorded within the array site was extremely low throughout the baseline survey period and supported by migratory collision risk modelling (Appendix 10-F of the EIAR Addendum) assuming the frequency of collision events are predicted to be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.8 of NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality estimates to the roseate tern SCI of Rockabill SPA from other projects in Table 3-1 (with the exception of NISA OWF which estimates an annual mortality of 0.07 breeding adults per annum and Dublin Array OWF which estimates an annual mortality of 0.27 breeding adults per annum) the extremely conservative assumption within collision risk modelling for the Project that all migratory roseate tern from Rockabill SPA pass through the CWP Array Area, is considered to mean that the potential for them also to pass through other OWFs is very limited. The combined annual collision mortality from Dublin OWF, NISA OWF and the extremely conservative modelling approach used for CWP totals 0.783 breeding adults per annum. In relation to an estimated baseline annual mortality of 415.58 breeding adults (from the most recent colony count of 1,776 breeding pairs - Coughlan <i>et al.</i>, 2024 and a breeding adult annual mortality rate of 11.7% - Horswill and Robinson, 2015), this additional in-combination mortality would represent a 0.19% increase to SPA mortality. As additional mortality to the roseate tern SCI of Rockabill SPA resulting from in-combination collision impacts with operational WTGs is estimated to represent only a very small potential increase (much less than 1%) to SPA baseline mortality rates, this impact will not result in an AESI in relation to the Conservation Objective and attributes and targets for this SCI as stated in Table 3-20. Specifically, this negligible increase to baseline mortality is considered not to affect the population dynamics of the SCI in such a way as to result in meaningful additional decline to the breeding population abundance. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-20.
		Purple sandpiper	Array site	The in-combination assessment for this species is addressed in Section 3.41: Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI.

3.11 Skerries Islands SPA (IE004122)

29. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: herring gull, light-bellied brent goose, purple sandpiper, turnstone and cormorant. A summary of the in-combination assessment to the breeding herring gull SCI is provided in **Table 3-22**, with the details provided in **Table 3-23**. [in-combination impacts to non-breeding herring gull are assessed in Section 3.42]. All effects assessed, including direct effects, are ex situ and considered in the context of the wider natural range and supporting habitats.

Table 3-22 Summary of adverse effects on site integrity (in-combination) – Skerries Islands SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Herring gull [A184]					
Objective: To restore [herring gull, cormorant] the Favourable conservation condition of the SCI in Skerries Islands SPA, which is defined by the following list of attributes and targets: 1. Breeding population size - Long term SPA population trend is stable or increasing 2. Productivity rate - Sufficient to maintain a stable or increasing population 3. [Winter population trend - Long term winter population trend is stable or increasing 4. Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population 5. Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target 6. Forage spatial distribution, extent, abundance and availability (winter and breeding) - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 7. Disturbance at breeding or wintering sites - Disturbance occurs at levels that do not significantly impact the achievement of targets 8. Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population 9. Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target 10. Supporting winter habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA 11. Barriers to connectivity and site use (winter and breeding) - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,6]	Section 4.9 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,6]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
		Introduction or spread of INNS [1,2,4]	See high-level assessment in Section 3.1		
Light-bellied brent goose [A046] – See Section 3.41					
Purple sandpiper [A148] – See Section 3.41					
Turnstone [A169] – See Section 3.41					
Cormorant [A017]					
Objective: To restore [cormorant] the Favourable conservation condition of the SCI in Skerries Islands SPA, which is defined by the following list of attributes and targets: 1. Breeding population size - Long term SPA population trend is stable or increasing 2. Productivity rate - Sufficient to maintain a stable or increasing population 3. [Winter population trend - Long term winter population trend is stable or increasing 4. Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population 5. Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target 6. Forage spatial distribution, extent, abundance and availability (winter and breeding) - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 7. Disturbance at breeding or wintering sites - Disturbance occurs at levels that do not significantly impact the achievement of targets 8. Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population 9. Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target 10. Supporting winter habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA 11. Barriers to connectivity and site use (winter and breeding) - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Disturbance and displacement [1,2,4,6,7]	Section 4.9.3 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
		Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.		

30. Within the November 2024 update to the Conservation Objectives of this site Shag (breeding) and cormorant (breeding and wintering) were added as SCIs of Skerries Islands SPA. As the Array site is beyond the mean maximum foraging range of these species from this SPA, any potential for impacts would be limited to occurring within the OECC. Such impacts are considered short term, reversible and of extremely limited potential consequence to the cormorant or shag SCIs of Skerries Islands SPA in relation to the Conservation Objectives, attributes and targets outlined in **Table 3-22**, above. Consequently there is assessed to be no in-combination AESI to the Skerries Islands SPA via potential impacts to these receptors.

Table 3-23 In-combination assessment of adverse effects on site integrity Skerries Islands SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Herring gull	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-22.
		Herring gull	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-22.
		Light-bellied brent goose, purple sandpiper, turnstone	OECC intertidal landfall	The in-combination assessment for these species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
	O&M	Herring gull	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-22.
		Herring gull	OECC	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the OECC represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS , the

Impact	Phase	SCI(s)	Area	In-combination assessment
				proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-22.
		Light-bellied brent goose, purple sandpiper, turnstone	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
Disturbance and displacement	Construction	Light-bellied brent goose, purple sandpiper, turnstone	Array site	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
		Cormorant	OECC	Project-only construction phase impacts arising from disturbance and displacement within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of habitats available to seabird SCIs of Skerries Islands SPA during breeding, migration and wintering periods (Section 4.9.3 of NIS Volume 5, Part 2 and Section 4.9 of NIS Addendum Part 1). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Skerries Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skerries Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-22.
		Light-bellied brent goose, purple sandpiper, turnstone	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
	O&M	Light-bellied brent goose, purple sandpiper, turnstone	Array site	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
		Cormorant	OECC	Potential for disturbance and displacement within the OECC on an <i>ex situ</i> basis during the operational phase of the project is limited to works associated with routine monitoring activity and maintenance or repair events over the operational lifetime of the project. Project-only operation and maintenance phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of habitats available to seabird SCIs of Skerries Islands SPA during breeding, migration and wintering periods (Section 4.9.3 of NIS Volume 5, Part 2 and Section 4.9 of NIS Addendum Part 1). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Skerries Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range during the operation and maintenance phase of the CWP Project. It is, however, considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skerries Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from operation and maintenance phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-22.

Impact	Phase	SCI(s)	Area	In-combination assessment
		Light-bellied brent goose, purple sandpiper, turnstone	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
Changes in prey availability	Construction	Herring gull	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-22.
		Herring gull Cormorant	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-22.
		Light-bellied brent goose, purple sandpiper, turnstone	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
	O&M	Herring gull	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with

Impact	Phase	SCI(s)	Area	In-combination assessment
				the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-22.
		Herring gull Cormorant	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-22.
		Light-bellied brent goose, purple sandpiper, turnstone	OECC intertidal landfall	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .
Collision	O&M	Herring gull	Array site	Project-only collision impacts to the herring gull SCI of Skerries Islands SPA are assessed to be negligible (a total of 0.013 individuals per annum [one mortality per 76.9 years] for array site Design Option A and 0.011 individuals per annum [one mortality per 90.9 years] for array site Design Option B). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that this negligible project-only contribution to in-combination collision impacts to this SCI of Skerries Islands SPA cannot contribute to AESI in such a way as to adversely affect the Conservation Objective of the SPA to maintain the favourable conservation condition of the SCI. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-22.
		Light-bellied brent goose, purple sandpiper, turnstone	Array site	The in-combination assessment for this species is addressed in Section 3.41 : Distant SPAs designated in relation to migratory wildfowl and waders. No in-combination AESI .

3.12 Aberdaron Coast and Bardsey Island SPA (Wales – UK9013121)

31. This SPA is designated in relation to the following feature which have been screened in for consideration within the NIS: Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-24**, with the details provided in **Table 3-25**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-24 Summary of adverse effects on site integrity (in-combination) – Aberdaron Coast and Bardsey Island SPA

Objective:	Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Manx shearwater [A013]						
The vision for this feature is for it to be in a favourable conservation status	1. Breeding population: stable or increasing	Direct effects on habitat [1]	Section 4.10 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Productivity rate: stable	Disturbance and displacement [1,2]		None	No change	No AESI
	3. Deaths from the lighthouse attractions, fencing and other infrastructure: minimal	Artificial lighting impacts [1,2]		None	No change	No AESI
	4. Ground predators: none introduced	Changes in prey availability [1,2]		None	No change	No AESI
	5. No disturbance to nesting birds by restoration works on boundary walls or recreational activities	Introduction or spread of INNS [1,2,4]	See high-level assessment in Section 3.1 .			No AESI

Table 3-25 In-combination assessment of adverse effects on site integrity for Aberdaron Coast and Bardsey Island SPA

Impact	Phase	Feature(s)	Area	In-combination Assessment
Direct effects on habitat	Construction	Manx shearwater	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-24.
		Manx shearwater	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-24.

Impact	Phase	Feature(s)	Area	In-combination Assessment
	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-24.
		Manx shearwater	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-24.
Disturbance and displacement	Construction	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater feature of Aberdaron Coast and Bardsey Island SPA are assessed to be negligible (a total of 0.063 individuals per annum [one mortality per 15.9 years], representing a 0.003% increase to SPA mortality rates for evidence-led central value displacement figures – see Section 4.10 of NIS Volume 5, Part 2. It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Aberdaron Coast and Bardsey Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.10 of NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Aberdaron Coast and Bardsey Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Aberdaron Coast and Bardsey Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to feature Conservation Objectives stated in Table 3-24.
	O&M	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the Manx shearwater feature of Aberdaron Coast and Bardsey Island SPA are assessed to be negligible (a total of 0.125 individuals per annum [one mortality per 8 years], representing a 0.006% increase to SPA mortality rates for evidence-led central value

Impact	Phase	Feature(s)	Area	In-combination Assessment
				displacement figures – see Section 4.10 of NIS Volume 5, Part 2. It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Aberdaron Coast and Bardsey Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.10 of NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Aberdaron Coast and Bardsey Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Aberdaron Coast and Bardsey Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to feature Conservation Objectives stated in Table 3-24.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.10 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-24.
Changes in prey availability	Construction	Manx shearwater	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-24.
		Manx shearwater	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter

Impact	Phase	Feature(s)	Area	In-combination Assessment
				durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-24.
	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-24.
		Manx shearwater	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for other projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI.



Impact	Phase	Feature(s)	Area	In-combination Assessment
				Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-24 .

3.13 Saltee Islands SPA (IE004002)

32. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet. A summary of the in-combination assessment is provided in **Table 3-26**, with the details provided in **Table 3-27**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-26 Summary of adverse effects on site integrity (in-combination) – Saltee Islands SPA

Objective:	Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion		
Kittiwake [A188]								
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – No significant increase	Direct effects on habitat [1]	Section 4.11 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI		
		Changes in prey availability [1,2,4]		None	No change	No AESI		
		Collision [1,2]		None	No change	No AESI		
		Introduction or spread of INNS [1,2,3,4]		See high-level assessment in Section 3.1.			No AESI	
		Fulmar [A009]						
		To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – No significant increase 7. Disturbance at marine areas immediately adjacent to the colony – No significant increase	Direct effects on habitat [1]	Section 4.11 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
Changes in prey availability [1,2,4]	None			No change		No AESI		
Introduction or spread of INNS [1,2,3,4]	See high-level assessment in Section 3.1.			No AESI				
Lesser black-backed gull [A183]								
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – No significant increase			Direct effects on habitat [1]	Section 4.11 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
				Changes in prey availability [1,2,4]		None	No change	No AESI
		Collision [1,2]	None	No change		No AESI		
		Introduction or spread of INNS [1,2,3,4]		See high-level assessment in Section 3.1.			No AESI	
		Guillemot [A199]						
		To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – No significant increase 7. Disturbance at marine areas immediately adjacent to the colony – No significant increase	Direct effects on habitat [1]	Section 4.11 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
Disturbance and displacement (including barrier effects) [1,2,5]	None			No change		No AESI		
Changes in prey availability [1,2,4]	None			No change		No AESI		
Introduction or spread of INNS [1,2,3,4]				See high-level assessment in Section 3.1.			No AESI	
Razorbill [A200]								
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – No significant increase 7. Disturbance at marine areas immediately adjacent to the colony – No significant increase			Direct effects on habitat [1]	Section 4.11 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
		Disturbance and displacement (including barrier effects) [1,2,5]	None	No change		No AESI		
		Changes in prey availability [1,2,4]	None	No change		No AESI		
		Introduction or spread of INNS [1,2,3,4]		See high-level assessment in Section 3.1.			No AESI	
		Puffin [A204]						
		To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – No significant increase 7. Disturbance at marine areas immediately adjacent to the colony – No significant increase	Direct effects on habitat [1]	Section 4.11 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
Disturbance and displacement (including barrier effects) [1,2,5]	None			No change		No AESI		
Changes in prey availability [1,2,4]	None			No change		No AESI		
Introduction or spread of INNS [1,2,3,4]				See high-level assessment in Section 3.1.			No AESI	
Gannet [A016]								

Objective:	Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population abundance – No significant decline 2. Productivity rate – No significant decline 3. Distribution: breeding colonies – No significant decline 4. Prey biomass available – No significant decline 5. Barriers to connectivity – No significant increase 6. Disturbance at the breeding site – No significant increase 7. Disturbance at marine areas immediately adjacent to the colony – No significant increase	Direct effects on habitat [1]	Section 4.11 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
		Disturbance and displacement (including barrier effects) [1,2,5]		None	No change	No AESI
		Changes in prey availability [1,2,4]		None	No change	No AESI
		Collision [1,2]		None	No change	No AESI
		Introduction or spread of INNS [1,2,3,4]	See high-level assessment in Section 3.1.			No AESI

Table 3-27 In-combination assessment of adverse effects on site integrity for Saltee Islands SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-26.
		Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-26.
	O&M	Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects

Impact	Phase	SCI(s)	Area	In-combination assessment
				and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-26.
		Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-26.
Disturbance and displacement	Construction	Guillemot – indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to guillemot from Saltee Islands SPA as a result of the construction of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 7.841 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.806 individuals (10.279%). As the in-combination impact equates to a predicted increase to the baseline mortality of the Saltee Islands SPA breeding guillemot population of 0.497%, of which the proposed CWP project contributes 0.102%. Due to the limited duration of the construction phase, potential in-combination displacement mortality to the SPA breeding population resulting in less than a 1% increase to baseline mortality rates over a period of less than three years, is not considered to compromise CO attributes relating to long term population maintenance. Consequently, there is assessed to be no in-combination AESI as a result of construction phase disturbance and displacement impacts with regard to SCI Conservation Objectives stated in Table 3-26.
		Razorbill – indirect habitat loss and barrier effects		A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to razorbill from Saltee Islands SPA as a result of the construction of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 3.729 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.194 individuals (5.202%). As the in-combination impact equates to a predicted increase to the baseline mortality of the Saltee Islands SPA breeding razorbill population of 0.626%, of which the proposed CWP project contributes 0.033%. Due to the limited duration of the construction phase, potential in-combination displacement mortality to the SPA breeding population resulting in less than a 1% increase to baseline mortality rates over a period of less than three years, is not considered to compromise CO attributes relating to long term population maintenance.

Impact	Phase	SCI(s)	Area	In-combination assessment
				Consequently, there is assessed to be no in-combination AESI as a result of construction phase disturbance and displacement impacts with regard to SCI Conservation Objectives stated in Table 3-26 .
		Puffin – indirect habitat loss and barrier effects		<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the puffin SCI of Saltee Islands SPA are assessed to be negligible (a total of 0.006 individuals per annum [one mortality per 167 years], representing a 0.004% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.11). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Saltee Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-26.
		Gannet – indirect habitat loss and barrier effects		<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the gannet SCI of Saltee Islands SPA are assessed to be negligible (a total of 0.023 individuals per annum [one mortality per 44 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.11). It is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Saltee Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-26.
		Guillemot, razorbill, puffin, gannet – indirect habitat loss	OECC	<i>ex situ</i> project-only construction phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of habitats available to seabird SCIs of Saltee Islands SPA during breeding, migration and wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. These SCIs of Saltee Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within these species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-26.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Guillemot – indirect habitat loss and barrier effects	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to guillemot from Saltee Islands SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 8.647 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 1.612 individuals (18.642%). The in-combination impact equates to a predicted increase to the baseline mortality of the Saltee Islands SPA breeding guillemot population of 0.548%, of which the proposed CWP project contributes 0.102%. The Saltee Islands SPA breeding population of guillemot increased from a total of 21,436 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 25,851 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2015) – an increase of 20.60%. As additional mortality to the guillemot SCI of Saltee Islands SPA resulting from in-combination operation and maintenance phase displacement impacts is estimated to represent only a very small potential increase to SPA baseline mortality rates, this negligible increase to baseline mortality is considered not to affect the population dynamics of the SCI in such a way as to result in significant decline to the breeding population abundance. Consequently, there is assessed to be no in-combination AESI as a result of operation and maintenance phase disturbance and displacement impacts from the presence of infrastructure and associated operational activities within the array site with regard to SCI Conservation Objectives stated in Table 3-26.
		Razorbill – indirect habitat loss and barrier effects		A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination displacement mortality to razorbill from Saltee Islands SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 3.923 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.388 individuals (9.890%). The in-combination impact equates to a predicted increase to the baseline mortality of the Saltee Islands SPA breeding razorbill population of 0.659%, of which the proposed CWP project contributes 0.065%. The Saltee Islands SPA breeding population of razorbill increased from a total of 3,739 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 6,519 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2015) – an increase of 74.35%. As additional mortality to the razorbill SCI of Saltee Islands SPA resulting from in-combination operation and maintenance phase displacement impacts is estimated to represent only a very small potential increase to SPA baseline mortality rates, this negligible increase to baseline mortality is considered not to affect the population dynamics of the SCI in such a way as to result in significant decline to the breeding population abundance. Consequently, there is assessed to be no in-combination AESI as a result of operation and maintenance phase disturbance and displacement impacts from the presence of infrastructure and associated operational activities within the array site with regard to SCI Conservation Objectives stated in Table 3-26.
		Puffin – indirect habitat loss		<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the puffin SCI of Saltee Islands SPA are assessed to be negligible (a total of 0.017 individuals per annum [one mortality per 59 years], representing a 0.063% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.14). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCIs of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA.

Impact	Phase	SCI(s)	Area	In-combination assessment
				Although this SCI of Saltee Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-26.
		Gannet – indirect habitat loss		<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the gannet SCI of Saltee Islands SPA are assessed to be negligible (a total of 0.047 individuals per annum [one mortality per 22 years], representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 6.12.7). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Saltee Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-26.
		Guillemot, razorbill, puffin, gannet – indirect habitat loss	OECC	Potential for <i>ex situ</i> disturbance and displacement within the OECC during the operation and maintenance phase of the project is limited to works associated with routine monitoring activity and maintenance or repair events over the operational lifetime of the project. Project-only operation and maintenance phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of habitats available to seabird SCIs of Saltee Islands SPA during breeding, migration and wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. These SCIs of Saltee Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 above, which are also within these species' mean maximum (+ 1 SD) foraging range during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-26.
Changes in prey availability	Construction	Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	SCI(s)	Area	In-combination assessment
				When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-26.
		Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) projects impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-26.
	O&M	Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-26.
		Kittiwake, fulmar, lesser black-backed gull, guillemot, razorbill, puffin, gannet	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent

Impact	Phase	SCI(s)	Area	In-combination assessment
				of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-26.
Collision	O&M	Kittiwake	Array site	A conclusion was drawn of no adverse effect on site integrity to this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to kittiwake from Saltee Islands SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be 1.640 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.050 individuals (3.049%). The in-combination impact equates to a predicted increase to the baseline mortality of the Saltee Islands SPA breeding kittiwake population of 0.541%, of which the proposed CWP project contributes 0.016%. The Saltee Islands SPA breeding population of kittiwake decreased from a total of 4,250 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 2076 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2015) – a decrease of 51.15%. As additional mortality to the kittiwake SCI of Saltee Islands SPA resulting from in-combination collision impacts with operational WTGs is estimated to represent only a very small potential increase (much less than 1%) to SPA baseline mortality rates, this impact will not result in an AESI in relation to the Conservation Objective and attributes and targets for this SCI as stated in Table 3-26. Specifically, this negligible increase to baseline mortality is considered not to affect the population dynamics of the SCI in such a way as to result in meaningful additional decline to the breeding population abundance. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-26.
		Lesser black-backed gull	Array site	Project-only collision impacts to this SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the absence of collision mortality from Dublin Array and North Irish Sea Array OWFs, it is considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-26.
		Gannet	Array site	Project-only collision impacts within the array site to the gannet SCI of Saltee Islands SPA are assessed to be negligible (a total of 0.007 individuals per annum under Design Option A [one mortality per 143 years], representing a 0.001% increase to SPA mortality



Impact	Phase	SCI(s)	Area	In-combination assessment
				rates under the preferred Band Option 1 CRM, and a total of 0.006 individuals per annum under Design Option B [one mortality per 167 years], representing a 0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Volume 5, Part 2, Section 4.14). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Saltee Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-26.

3.14 Skomer, Skokholm and the Seas off Pembrokeshire SPA (Wales – UK9015051)

33. This SPA is designated in relation to the following features which have been screened in for consideration within the NIS: lesser black-backed gull, puffin, Manx shearwater and European storm petrel. A summary of the in-combination assessment is provided in **Table 3-28**, with the details provided in **Table 3-29**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-28 Summary of adverse effects on site integrity (in-combination) - Skomer, Skokholm and the Seas off Pembrokeshire SPA

Objectives: Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Lesser black-backed gull [A183]					
1. The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term: The breeding population size of lesser black-backed gull should be stable or increasing, aiming for at least 20,300, with a breeding productivity rate and an adult survival rate that allows this number to be maintained/increased. Colonies of this species must not be lost as a result of anthropogenic influence.	Direct effects on habitat [1,3]	Section 4.12 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,3]		None	No change	No AESI
	Collision [1]		None	No change	No AESI
	2. The distribution of the population should be being maintained, or where appropriate increasing: The distribution of this species within the site should not be constrained by anthropogenic factors. Reductions in the range of this species can only be acceptable if there is significant risk of detriment, to the FCS of priority features of this SPA.	Introduction or spread of INNS [1,3]	See high-level assessment in Section 3.1.		
3. There should be sufficient habitat, of sufficient quality, to support the population in the long term: The breeding and foraging habitat of this species should be stable or increasing in terms of its area, and its quality should remain unaffected by anthropogenic factors.					
4. Factors affecting the population or its habitat should be under appropriate control: There should be no mammalian land predators present in the SPA, and control measures should be in place to ensure that accidental introduction does not take place. Access beyond designated footpaths should be under appropriate control. Factors affecting the species within the site should be under control.					
Puffin [A204]					
1. The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term: The breeding population of puffin should be stable or increasing with an aim of 9500 individuals being achieved.	Direct effects on habitat [1, 3]	Section 4.12 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement [1,3]		None	No change	No AESI
	Changes in prey availability [1,3]		None	No change	No AESI
	2. The distribution of the population should be being maintained, or where appropriate increasing: The distribution of this species within the site should not be constrained by anthropogenic factors. There should be no contraction of the distribution of nesting sites as a result of anthropogenic factors.	Introduction or spread of INNS [1,3]	See high-level assessment in Section 3.1.		
3. There should be sufficient habitat, of sufficient quality, to support the population in the long term: The breeding and foraging habitat of this species should be stable or increasing in terms of its area, and its quality should remain unaffected by anthropogenic factors.					
4. Factors affecting the population or its habitat should be under appropriate control: There should be no mammalian land predators present in the SPA, and control measures should be in place to ensure that accidental introduction does not take place. Access beyond designated footpaths should be under appropriate control.					
Manx shearwater [A013]					
1. The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term: The breeding population of Manx shearwater should be stable or increasing with no measured decrease in numbers (based on a population count of 150,968), based on annual study plots.	Direct effects on habitat [1,3]	Section 4.12 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement [1,3]		None	No change	No AESI
	Artificial lighting impacts [1,3]		None	No change	No AESI
	Changes in prey availability [1,3]		None	No change	No AESI
2. The distribution of the population should be being maintained, or where appropriate increasing: The distribution of this species within the site should not be constrained by anthropogenic factors, including disturbance of nesting sites by the public and activities leading to possible loss of suitable nesting sites.	Introduction or spread of INNS [1,3]	See high-level assessment in Section 3.1.			No AESI
3. There should be sufficient habitat, of sufficient quality, to support the population in the long term: The breeding and foraging habitat of this species should be stable or increasing in terms of its area, and its quality should remain unaffected by anthropogenic factors.					
4. Factors affecting the population or its habitat should be under appropriate control: Rafting birds should remain unaffected by boat use and other anthropogenic factors; appropriate codes of conduct must be followed by all visitors and craft surrounding the islands. Factors affecting the species within the site should be under control.					

Objectives: Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
European storm petrel [A014]					
1. The size of the population should be stable or increasing, allowing for natural variability, and sustainable in the long term: The breeding population of European storm petrel should be stable or increasing. The aim, across the 2 islands is for at least 3500 pairs, with this number to be stable or increasing. 2. The distribution of the population should be being maintained, or where appropriate increasing: The distribution of this species within the site should not be constrained by anthropogenic factors, including disturbance by the public and activities leading to possible loss of suitable nesting sites. 3. There should be sufficient habitat, of sufficient quality, to support the population in the long term: The foraging habitat of this species should be stable or increasing in terms of its area, and its quality should remain unaffected by anthropogenic factors. There should be no contraction of the distribution of nesting sites as a result of anthropogenic factors. 4. Factors affecting the population or its habitat should be under appropriate control: Breeding success of this species should remain unaffected by negative human influence. Factors affecting the species within the site should be under control.	Direct effects on habitat [1,3]	Section 4.12 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,3]		None	No change	No AESI
	Introduction or spread of INNS [1,3]	See high-level assessment in Section 3.1.			No AESI

Table 3-29 In-combination assessment of adverse effects on site integrity for Skomer, Skokholm and the Seas off Pembrokeshire SPA

Impact	Phase	Feature(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-28.
		Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-28.

Impact	Phase	Feature(s)	Area	In-combination assessment
	O&M	Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-28.
		Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-28.
Disturbance and displacement	Construction	Puffin – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the puffin feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA are assessed to be negligible (a total of 0.127 individuals per annum [one mortality per 7.9 years], representing a 0.003% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.12). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to feature Conservation Objectives stated in Table 3-28.
		Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA are assessed to be negligible (a total of 2.922 individuals per annum, representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures –

Impact	Phase	Feature(s)	Area	In-combination assessment
				see NIS Volume 5, Part 2, Section 4.12). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to feature Conservation Objectives stated in Table 3-28.
		Puffin – indirect habitat loss	OECC	<i>ex situ</i> project-only construction phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of habitats available to seabird SCIs of Skomer, Skokholm and the Seas off Pembrokeshire SPA during breeding, migration and wintering periods (NIS Volume 5, Part 2, Section 4.12). With puffin considered to be similarly sensitive to other auks in terms of escape distance around vessels, a disturbance area of 0.490 km² for razorbill (calculated from published disturbance response range – Fliessbach <i>et al.</i>, 2019; See NIS Volume 5, Part 2, Section 4.12) is considered to be precautionarily representative, and characterises an extremely small proportion of the overall OECC area available to this species within its theoretical foraging range of breeding sites within Skomer, Skokholm and the Seas off Pembrokeshire SPA. The puffin feature is therefore assessed to experience only negligible disturbance and displacement impacts from construction phase vessel activity within the OECC. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in-combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although the puffin SCI of Skomer, Skokholm and the Seas off Pembrokeshire SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-28.
	O&M	Puffin – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the puffin feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA are assessed to be negligible (a total of 0.255 individuals per annum [one mortality per 3.9 years], representing a 0.006% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.12). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only

Impact	Phase	Feature(s)	Area	In-combination assessment
				contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to feature Conservation Objectives stated in Table 3-28.
		Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the Manx shearwater feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA are assessed to be negligible (a total of 5.844 individuals per annum, representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.12). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to feature Conservation Objectives stated in Table 3-28.
		Puffin – indirect habitat loss	OECC	Potential for disturbance and displacement within the OECC on an <i>ex situ</i> basis during the operational phase of the project is limited to works associated with routine monitoring activity and maintenance or repair events over the operational lifetime of the project. Project-only operation and maintenance phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of habitats available to the puffin SCI of Skomer, Skokholm and the Seas off Pembrokeshire SPA during breeding, migration and wintering periods (NIS Volume 5, Part 2, Section 4.12). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in-combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 above, which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Potential for disturbance and displacement within the OECC during the operation and maintenance phase of the project is limited to works associated with routine monitoring activity and maintenance or repair events over the operational lifetime of the project. Project-only operation and maintenance phase impacts arising from disturbance and displacement within the OECC are considered to represent a negligible proportion of habitats available to seabird SCIs of Skomer, Skokholm and the Seas off Pembrokeshire SPA during breeding, migration and wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. This SCI of the SPA may also experience disturbance and displacement from those other projects listed Table 3-1 above, which are also within this species' mean maximum (+ 1 SD) foraging range during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to these SCIs

Impact	Phase	Feature(s)	Area	In-combination assessment
				of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts from operation and maintenance phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-28.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.12 of NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-28.
Changes in prey availability	Construction	Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-28.
		Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves.

Impact	Phase	Feature(s)	Area	In-combination assessment
				Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-28 .
	O&M	Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-28.
		Lesser black-backed gull, puffin, Manx shearwater, European storm petrel	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-28.
Collision	O&M	Lesser black-backed gull	Array site	Project-only collision impacts to this SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 , the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA.



Impact	Phase	Feature(s)	Area	In-combination assessment
				In the absence of collision mortality from Dublin Array and North Irish Sea Array OWFs, it is considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Skomer, Skokholm and the Seas off Pembrokeshire SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-28.

3.15 Grassholm SPA (Wales – UK9014041)

34. This SPA is designated in relation to the following feature which have been screened in for consideration within the NIS: gannet. A summary of the in-combination assessment is provided in **Table 3-30**, with the details provided in **Table 3-31**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-30 Summary of adverse effects on site integrity (in-combination) – Grassholm SPA

Objective:	Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Gannet [A016]						
To maintain the feature in a favourable conservation status	1. Breeding population – Will not fall below 30,000 pairs in three consecutive years. 2. Breeding population – Will not drop by more than 25% of the previous year's figures in any one year. 3. Breeding population – There will be no decline in this population significantly greater than any decline in the North Atlantic population as a whole.	Direct effects on habitat [1,2,3]	Section 4.13 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
		Disturbance and displacement [1,2,3]		None	No change	No AESI
		Changes in prey availability [1,2,3]		None	No change	No AESI
		Collision [1,2,3]		None	No change	No AESI
		Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI

Table 3-31 In-combination assessment of adverse effects on site integrity for Grassholm SPA

Impact	Phase	Feature(s)	Area	In-combination Assessment
Direct effects on habitat	Construction	Gannet	Array site	Project-only construction phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-30.
		Gannet	OECC	Project-only construction phase direct effects on habitat impacts on an <i>ex situ</i> basis within the OECC represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-30.

Impact	Phase	Feature(s)	Area	In-combination Assessment
	O&M	Gannet	Array site	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-30.
		Gannet	OECC	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the OECC represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-30.
Disturbance and displacement	Construction	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the gannet feature of Grassholm SPA are assessed to be negligible (a total of 0.158 individuals per annum [one mortality per 6.3 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2 Section 4.13). It is therefore considered that the negligible project-only contribution to in-combination <i>ex situ</i> disturbance and displacement impacts to this feature of Grassholm SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Grassholm SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Grassholm SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to feature Conservation Objectives stated in Table 3-30.
	O&M	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the gannet feature of Grassholm SPA are assessed to be negligible (a total of 0.316 individuals per annum [one mortality per 3.2 years], representing a 0.004% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2 Section 4.13). It is therefore considered that the negligible project-only contribution to in-combination <i>ex situ</i> disturbance and displacement impacts to this feature of Grassholm SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential.

Impact	Phase	Feature(s)	Area	In-combination Assessment
				This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Grassholm SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Grassholm SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to feature Conservation Objectives stated in Table 3-30.
Changes in prey availability	Construction	Gannet	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-30.
		Gannet	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-30.
	O&M	Gannet	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required.

Impact	Phase	Feature(s)	Area	In-combination Assessment
				There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-30.
		Gannet	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-30.
Collision	O&M	Gannet	Array site	Project-only collision impacts within the array site to the gannet SCI of Grassholm SPA are assessed to be negligible (a total of 0.048 individuals per annum under Design Option A [one mortality per 21 years], representing a 0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM, and a total of 0.041 individuals per annum under Design Option B [one mortality per 24 years], representing a 0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Addendum (Part 1), Section 4.13). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Addendum (Part 1), Section 4.13, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in-combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Grassholm SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-30.

3.16 Copeland Islands SPA (Northern Ireland – UK9020291)

35. This SPA is designated in relation to the following feature which have been screened in for consideration within the NIS: Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-32**, with the details provided in **Table 3-33**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-32 Summary of adverse effects on site integrity (in-combination) - Copeland Islands SPA

Objective:	Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Manx shearwater [A013]						
To maintain the favourable conservation condition of the feature in the SPA	1. Breeding population – No significant decrease in population against national trends.	Direct effects on habitat [1]	Section 4.14 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
		Disturbance and displacement [1]		None	No change	No AESI
		Artificial lighting impacts [1]		None	No change	No AESI
		Changes in prey availability [1]		None	No change	No AESI
		Introduction or spread of INNS [1]	See high-level assessment in Section 3.1 .			No AESI

Table 3-33 In-combination assessment of adverse effects on site integrity for Copeland Islands SPA

Impact	Phase	Feature(s)	Area	In-combination Assessment
Direct effects on habitat	Construction	Manx shearwater	Array site	Project-only construction phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-32.
		Manx shearwater	OECC	Project-only construction phase direct effects on habitat impacts on an <i>ex situ</i> basis within the OECC represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-32.

Impact	Phase	Feature(s)	Area	In-combination Assessment
	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-32.
		Manx shearwater	OECC	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the OECC represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-32.
Disturbance and displacement	Construction	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater feature of Copeland Islands SPA are assessed to be negligible (a total of 0.030 individuals per annum [one mortality per 33 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2 Section 4.14). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Copeland Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Copeland Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Copeland Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to feature Conservation Objectives stated in Table 3-32.
	O&M	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the Manx shearwater feature of Copeland Islands SPA are assessed to be negligible (a total of 0.061 individuals per annum [one mortality per 16 years], representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2 Section 4.14). It is therefore considered that the negligible project-only contribution to in-combination

Impact	Phase	Feature(s)	Area	In-combination Assessment
				disturbance and displacement impacts to this feature of Copeland Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2 the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Copeland Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Copeland Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to feature Conservation Objectives stated in Table 3-32.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.14 of NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-32.
Changes in prey availability	Construction	Manx shearwater	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-32.
		Manx shearwater	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	Feature(s)	Area	In-combination Assessment
	O&M			When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-32.
		Manx shearwater	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic <i>ex situ</i> habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-32.
		Manx shearwater	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to the seabird SCI. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-32.

3.17 Ribble and Alt Estuaries SPA (England UK9005103)

36. This SPA is designated in relation to the following feature which have been screened in for consideration within the NIS: lesser black-backed gull. A summary of the in-combination assessment is provided in **Table 3-34**, with the details provided in **Table 3-35**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-34 Summary of adverse effects on site integrity (in-combination) – Ribble and Alt Estuaries SPA

Objective	Attributes	Targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Lesser black-backed gull [A183]							
Subject to natural change, maintain or restore the lesser black-backed gull population, distribution and its supporting habitats in favourable condition.	1. Breeding population: abundance	1. Maintain the size of the breeding population at a level which is above 8,097 pairs, whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent.	Direct effects on habitat [1]	Section 4.15 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Connectivity with supporting habitats	2. Maintain safe passage of birds moving between roosting and feeding areas.	Changes in prey availability [1,5,9]		None	No change	No AESI
	3. Disturbance caused by human activity	3. Restrict the frequency, duration and / or intensity of disturbance affecting roosting, nesting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed.	Collision [1,5]		None	No change	No AESI
	4. Predation - all habitats	4. Restrict predation and disturbance caused by native and non-native predators					
	5. Productivity	5. [Maintain or recover] productivity so that breeding success is maximised within the constraints of the site.					
	6. Supporting habitat: air quality	6. Maintain concentrations and deposition of air pollutants at below the site-relevant Critical Load or Level values given for this Feature of the site on the Air Pollution Information System.					
	7. Supporting habitat: conservation measures	7. Maintain the structure, function and supporting processes associated with the Feature and its supporting habitat through management or other measures (whether within and/or outside the site boundary as appropriate) and ensure these measures are not being undermined or compromised.					
	8. Supporting habitat: extent, distribution and availability of supporting habitat for the breeding season	8. Maintain the extent, distribution and availability of suitable habitat (either within or outside the site boundary) which supports the Feature for all necessary stages of its breeding cycle (courtship, nesting, feeding) at: 45 ha (intertidal rock); 11,678 ha (intertidal sand and muddy sand); 672 ha (intertidal mud); 78 ha (intertidal mixed sediments); 2,292 ha (coastal saltmarshes and saline reedbeds); 191 ha (freshwater and coastal grazing marsh).					
	9. Supporting habitat: food availability (bird)	9. Maintain the distribution, abundance and availability of key food and prey items (e.g., voles, small seabirds, waders, sandeel, sprat, cod, herring, roach, rudd, beetles, flies, earthworm, shellfish, as appropriate) at preferred sizes.					
	10. Supporting habitat: vegetation characteristics for nesting	10. Maintain the extent and distribution of predominantly medium to tall [i.e., 20–60 cm] grassland swards.					
	11. Supporting habitat: water quality - contaminants	11. Reduce aqueous contaminants to levels equating to High Status according to Annex VIII and Good Status according to Annex V of the Water Framework Directive, avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	12. Supporting habitat: water quality - dissolved oxygen	12. Maintain the dissolved oxygen (DO) concentration at levels equating to High Ecological Status (specifically ≥ 5.7 mg/l (at 35 salinity) for 95 % of year) avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	13. Supporting habitat: water quality – nutrients	13. Maintain water quality at mean winter dissolved inorganic nitrogen levels where biological indicators of eutrophication (opportunistic macroalgal and phytoplankton blooms) do not affect the integrity of the site and Features, avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	14. Supporting habitat: water quality - turbidity	14. Maintain natural levels of turbidity (e.g., concentrations of suspended sediment, plankton and other material) across the habitat.	Introduction or spread of INNS [1,5,9]	See high-level assessment in Section 3.1.			No AESI

Table 3-35 In-combination assessment of adverse effects on site integrity for Ribble and Alt Estuaries SPA

Impact	Phase	Feature(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Lesser black-backed gull	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-34.
		Lesser black-backed gull	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-34.
	O&M	Lesser black-backed gull	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-34.
		Lesser black-backed gull	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the

Impact	Phase	Feature(s)	Area	In-combination assessment
				proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-34.
Changes in prey availability	Construction	Lesser black-backed gull	Array site & OECC	Project-only construction phase impacts arising from changes in prey availability within the array site and OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from array site and OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area and OECC with regard to SCI Conservation Objectives stated in Table 3-34.
	O&M	Lesser black-backed gull	Array site & OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-34.



Impact	Phase	Feature(s)	Area	In-combination assessment
Collision	O&M	Lesser black-backed gull	Array site	Project-only collision impacts to this SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Ribble and Alt Estuaries SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-34.

3.18 Helvick Head to Ballyquin SPA (IE004192)

37. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: kittiwake. A summary of the in-combination assessment is provided in **Table 3-36**, with the details provided in **Table 3-37**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-36 Summary of adverse effects on site integrity (in-combination) - Helvick Head to Ballyquin SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [kittiwake] the Favourable conservation condition of the SCI in Helvick Head to Ballyquinn SPA, which is defined by the following list of attributes and targets: - Breeding population size – Long term SPA population trend is stable or increasing - Productivity rate – Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA – Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability – Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site – Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony – Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity – Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Kittiwake [A188]				
	Direct effects on habitat [1,4]	Section 4.16 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI

Table 3-37 In-combination assessment of adverse effects on site integrity for Helvick Head to Ballyquin SPA

Impact	Phase	SCI(s)	Area	In-combination Assessment
Direct effects on habitat	Construction	Kittiwake	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-36.
		Kittiwake	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects

Impact	Phase	SCI(s)	Area	In-combination Assessment
				and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-36.
	O&M	Kittiwake	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-36.
		Kittiwake	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-36.
	Construction	Kittiwake	Array site & OECC	Project-only construction phase impacts arising from changes in prey availability within the array site and OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from array site and OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA.

Impact	Phase	SCI(s)	Area	In-combination Assessment
				As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area and OECC with regard to SCI Conservation Objectives stated in Table 3-36 .
	O&M	Kittiwake	Array site & OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-36.
Collision	O&M	Kittiwake	Array site	Project-only collision impacts to the kittiwake SCI of Helvick Head to Ballyquin SPA are assessed to be negligible (a total of 0.003 individuals per annum under Design Option A [one mortality per 333.3 years], representing a 0.014% increase to SPA mortality rates under the preferred Band Option 1 CRM, and a total of 0.002 individuals per annum under Representative Scenario Option B [one mortality per 500 years], representing a 0.013% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Volume 5, Part 2, Section 4.16). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Helvick Head to Ballyquin SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-36.

3.19 Morecambe Bay and Duddon Estuary SPA (England UK9005103)

38. This SPA is designated in relation to the following features which have been screened in for consideration within the NIS: lesser black-backed gull and Mediterranean gull. A summary of the in-combination assessment is provided in **Table 3-38**, with the details provided in **Table 3-39**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-38 Summary of adverse effects on site integrity (in-combination) – Morecambe Bay and Duddon Estuary SPA

Objective	Attributes	Targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Lesser black-backed gull [A183] (breeding)							
Subject to natural change, maintain or restore the lesser black-backed gull population, distribution and its supporting habitats in favourable condition.	1. Breeding population: abundance	1. Restore the size of the breeding population to a level which is above 10,000 pairs whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent.	Direct effects on habitat [1]	Section 4.17 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Connectivity with supporting habitats	2. Maintain safe passage of birds moving between roosting and feeding areas.	Changes in prey availability [1,5,9]		None	No change	No AESI
	3. Disturbance caused by human activity	3. Restrict the frequency, duration and / or intensity of disturbance affecting roosting, nesting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed.	Collision [1,5]		None	No change	No AESI
	4. Predation - all habitats	4. Restrict predation and disturbance caused by native and non-native predators					
	5. Productivity	5. [Maintain or recover] productivity so that breeding success is maximised within the constraints of the site.					
	6. Supporting habitat: air quality	6. Maintain concentrations and deposition of air pollutants at below the site-relevant Critical Load or Level values given for this Feature of the site on the Air Pollution Information System.					
	7. Supporting habitat: conservation measures	7. Maintain the structure, function and supporting processes associated with the Feature and its supporting habitat through management or other measures (whether within and/or outside the site boundary as appropriate) and ensure these measures are not being undermined or compromised.					
	8. Supporting habitat: extent, distribution and availability of supporting habitat for the breeding season	8. Restore the extent, distribution and availability of suitable habitat (either within or outside the site boundary) which supports the Feature for all necessary stages of its breeding cycle (courtship, nesting, feeding). Freshwater and coastal grazing marsh (unknown), Water column (unknown), Large shallow inlets and bays as well as Mudflats and sandflats not covered by seawater at low tide (31,000 ha) including; Intertidal coarse sediment, Intertidal stony reef, sand and muddy sand, Intertidal seagrass beds (41 ha), Intertidal rock, Intertidal biogenic reef: mussel beds, Intertidal mud, Intertidal mixed sediments, Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) and <i>Salicornia</i> and other annuals colonising mud and sand under the umbrella of Saltmarsh (3744 ha) and Coastal lagoons (195 ha).					
	9. Supporting habitat: food availability (bird)	9. Maintain the distribution, abundance and availability of key food and prey items (e.g., voles, small seabirds, waders, sandeel, sprat, cod, herring, roach, rudd, beetles, flies, earthworm, shellfish, as appropriate) at preferred sizes.					
	10. Supporting habitat: vegetation characteristics for nesting	10. Maintain the extent and distribution of predominantly medium to tall [i.e., 20–60 cm] grassland swards.					
	11. Supporting habitat: water quality - contaminants	11. Reduce aqueous contaminants to levels equating to High Status according to Annex VIII and Good Status according to Annex V of the Water Framework Directive, avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	12. Supporting habitat: water quality - dissolved oxygen	12. Maintain the dissolved oxygen (DO) concentration at levels equating to High Ecological Status (specifically ≥5.7 mg/l (at 35 salinity) for 95 % of year) avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	13. Supporting habitat: water quality - nutrients	13. Maintain water quality at mean winter dissolved inorganic nitrogen levels where biological indicators of eutrophication (opportunistic macroalgal and phytoplankton blooms) do not affect the integrity of the site and Features, avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	14. Supporting habitat: water quality - turbidity	14. Maintain natural levels of turbidity (e.g., concentrations of suspended sediment, plankton and other material) across the habitat.					
			Introduction or spread of INNS [1,5,9]	See high-level assessment in Section 3.1.			No AESI

Table 3-39 In-combination assessment of adverse effects on site integrity for Morecambe Bay and Duddon Estuary SPA

Impact	Phase	Feature(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Lesser black-backed gull (breeding)	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding period. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (non-breeding), Mediterranean gull	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during migration and/or wintering period. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (breeding)	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during the breeding period. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-38.

Impact	Phase	Feature(s)	Area	In-combination assessment
	O&M	Lesser black-backed gull (non-breeding), Mediterranean gull	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (breeding)	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (non-breeding), Mediterranean gull	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (breeding)	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP.

Impact	Phase	Feature(s)	Area	In-combination assessment
				The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-38 .
		Lesser black-backed gull (non-breeding), Mediterranean gull	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of <i>ex situ</i> direct effects on habitat within the OECC site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-38.
Changes in prey availability	Construction	Lesser black-backed gull (breeding)	Array site	Project-only construction phase impacts arising from changes in prey availability within the array on an <i>ex situ</i> basis site are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from array site construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area with regard to SCI Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (non-breeding), Mediterranean gull	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from array site construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA.

Impact	Phase	Feature(s)	Area	In-combination assessment
				As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area with regard to SCI Conservation Objectives stated in Table 3-38 .
		Lesser black-backed gull (breeding)	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within OECC with regard to SCI Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (non-breeding), Mediterranean gull	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from and OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-38.
	O&M	Lesser black-backed gull (breeding)	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially

Impact	Phase	Feature(s)	Area	In-combination assessment
				discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (non-breeding), Mediterranean gull	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-38.
		Lesser black-backed gull (breeding)	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-38.

Impact	Phase	Feature(s)	Area	In-combination assessment
		Lesser black-backed gull (non-breeding), Mediterranean gull	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-38.
Collision	O&M	Lesser black-backed gull, Mediterranean gull	Array site	Project-only collision impacts to these features are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Morecambe Bay and Duddon Estuary SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to feature Conservation Objectives stated in Table 3-38.

3.20 Ailsa Craig SPA (Scotland – UK9003091)

39. This SPA is designated in relation to the following features which have been screened in for consideration within the NIS: kittiwake, lesser black-backed gull, gannet. A summary of the in-combination assessment is provided in **Table 3-40**, with the details provided in **Table 3-41**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-40 Summary of adverse effects on site integrity (in-combination) - Ailsa Craig SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained. To ensure for the qualifying species that the following are maintained in the long term: 1. Population of the species as a viable component of the site 2. Distribution of the species within site 3. Distribution and extent of habitats supporting the species 4. Structure, function and supporting processes of habitats supporting the species 5. No significant disturbance of the species	Kittiwake [A188]				
	Direct effects on habitat [1,3,4]	Section 4.18 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,3,4]		None	No change	No AESI
	Collision [1]		None	No change	No AESI
	Introduction or spread of INNS [1,4]	See high-level assessment in Section 3.1.			No AESI
	Lesser black-backed gull [A183]				
	Direct effects on habitat [1,3,4]	Section 4.18 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,3,4]		None	No change	No AESI
	Collision [1]		None	No change	No AESI
	Introduction or spread of INNS [1,4]	See high-level assessment in Section 3.1.			No AESI
	Gannet [A016]				
	Direct effects on habitat [1,3,4]	Section 4.18 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement [1,3, 5]		None	No change	No AESI
	Changes in prey availability [1,3,4]		None	No change	No AESI
	Collision [1]		None	No change	No AESI
	Introduction or spread of INNS [1,4]	See high-level assessment in Section 3.1.			No AESI

Table 3-41 In-combination assessment of adverse effects on site integrity for Ailsa Craig SPA

Impact	Phase	Feature(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake, lesser black-backed gull, gannet	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-40.
		Kittiwake, lesser black-backed gull, gannet	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are

Impact	Phase	Feature(s)	Area	In-combination assessment
				limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-40.
	O&M	Kittiwake, lesser black-backed gull, gannet	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-40.
		Kittiwake, lesser black-backed gull, gannet	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-40.
	Construction	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the gannet feature of Ailsa Craig SPA are assessed to be negligible (a total of 0.089 individuals per annum [one mortality per 11 years], representing a 0.001% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.18). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Ailsa Craig SPA on an <i>ex situ</i> basis cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Ailsa Craig SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP

Impact	Phase	Feature(s)	Area	In-combination assessment
				Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Ailsa Craig SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to feature Conservation Objectives stated in Table 3-40.
	O&M	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the gannet feature of Ailsa Craig SPA are assessed to be negligible (a total of 0.179 individuals per annum [one mortality per 5.6 years], representing a 0.003% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.18). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Ailsa Craig SPA on an <i>ex situ</i> basis cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Ailsa Craig SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Ailsa Craig SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-40.
Changes in prey availability	Construction	Kittiwake, lesser black-backed gull, gannet	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from array site construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array area with regard to SCI Conservation Objectives stated in Table 3-40.
		Kittiwake, lesser black-backed gull, gannet	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion of prey availability for these SCIs. Although some SCI prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from OECC construction activities (noise and SSC) are not considered to translate into population-level consequences to the SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA.

Impact	Phase	Feature(s)	Area	In-combination assessment
				When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of this SPA. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-40.
	O&M	Kittiwake, lesser black-backed gull, gannet	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-40.
		Kittiwake, lesser black-backed gull, gannet	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-40.

Impact	Phase	Feature(s)	Area	In-combination assessment
Collision	O&M	Kittiwake	Array site	Project-only collision impacts to the kittiwake feature of Ailsa Craig SPA are assessed to be negligible (a total of 0.018 individuals per annum under Design Option A [one mortality per 55.5 years], representing a 0.013% increase to SPA mortality rates under the preferred Band Option 1 CRM, and a total of 0.016 individuals per annum under Representative Scenario Option B [one mortality per 62.5years], representing a 0.011% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Volume 5, Part 2, Section 4.16). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Ailsa Craig SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-40.
		Lesser black-backed gull	Array site	Project-only collision impacts to this SCI are assessed to be negligible on the basis that flight activity recorded within the array site was extremely low throughout the baseline survey period. The frequency of collision events will therefore be extremely rare and will not adversely affect SCI populations. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Ailsa Craig SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to feature Conservation Objectives stated in Table 3-40.
		Gannet	Array site	Project-only collision impacts to the gannet SCI of Ailsa Craig SPA are assessed to be negligible (a total of 0.025 individuals per annum under Design Option A [one mortality per 40 years], representing a <0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM, and a total of 0.021 individuals per annum under Design Option B [one mortality per 48 years], representing a <0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Volume 5, Part 2, Section 4.18). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Ailsa Craig SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-40.

3.21 Rathlin Island SPA (Northern Ireland – UK9020011)

40. This SPA is designated in relation to the following features which have been screened in for consideration within the NIS: Kittiwake. A summary of the in-combination assessment is provided in **Table 3-42**, with the details provided in **Table 3-43**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-42 Summary of adverse effects on site integrity (in-combination) - Rathlin Island SPA

Objective:	Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Kittiwake [A188]						
To maintain the favourable conservation condition of the Feature in the SPA	1. Breeding population – Maintain or enhance. 2. Productivity – Fledging success sufficient to maintain or enhance population. 3. Supporting habitats – Maintain or enhance. 4. Disturbance – Ensure no significant disturbance to qualifying feature. 5. Distribution of the species within site – Maintain in the long-term.	Direct effects on habitat [1,2,3]	Section 4.19 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
		Changes in prey availability [1,2,3]		None	No change	No AESI
		Collision [1,2]		None	No change	No AESI
		Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI

Table 3-43 In-combination assessment of adverse effects on site integrity for Rathlin Island SPA

Impact	Phase	Feature(s)	Area	In-combination Assessment
Direct effects on habitat	Construction	Kittiwake	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-42.
		Kittiwake	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-42.
	O&M	Kittiwake	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination

Impact	Phase	Feature(s)	Area	In-combination Assessment
				effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-42.
		Kittiwake	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-42.
Changes in prey availability	Construction	Kittiwake	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-42.
		Kittiwake	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site.

Impact	Phase	Feature(s)	Area	In-combination Assessment
				The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-42.
	O&M	Kittiwake	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-42.
		Kittiwake	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-42.
Collision	O&M	Kittiwake	Array site	A conclusion was drawn of no adverse effect on the integrity of the SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination collision mortality to kittiwake from Rathlin Island SPA as a result of the operational infrastructure of the proposed CWP project and combination effects of other projects screened in to the in-combination assessment (Table 3-1) is estimated to be



Impact	Phase	Feature(s)	Area	In-combination Assessment
				6.916 breeding adults per annum (CEA Ornithology Appendix of the CEA Report), of which the proposed CWP project contributes 0.506 individuals (7.316%). The in-combination impact equates to a predicted increase to the baseline mortality of the Rathlin Island SPA breeding kittiwake population of 0.173%, of which the proposed CWP project contributes 0.013%. The Rathlin Island SPA breeding population of kittiwake increased from a total of 19,834 individuals during surveys for the third Irish and UK seabird census (Seabird 2000 – with surveys between 1998 and 2002), to a total of 27,412 individuals for the fourth Irish and UK seabird census (Seabirds Count, Burnell <i>et al.</i>, 2023 – with surveys in 2021) – an increase of 38.21%. As additional mortality to the kittiwake SCI of Rathlin SPA resulting from in-combination collision impacts with operational WTGs is estimated to represent only a very small potential increase (much less than 1%) to SPA baseline mortality rates, this impact will not result in an AESI in relation to the Conservation Objective and attributes and targets for this SCI as stated in Table 3-42. Specifically, this negligible increase to baseline mortality is considered not to affect the population dynamics of the SCI in such a way as to result in meaningful additional decline to the breeding population abundance. Consequently, there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-42.

3.22 Old Head of Kinsale SPA (IE004021)

41. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: Kittiwake. A summary of the in-combination assessment is provided in **Table 3-44**, with the details provided in **Table 3-45**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-44 Summary of adverse effects on site integrity (in-combination) - Old Head of Kinsale SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [kittiwake] the Favourable conservation condition of the SCI in Old Head of Kinsale SPA, which is defined by the following list of attributes and targets:	Kittiwake [A188]				
1. Breeding population size - Long term SPA population trend is stable or increasing	Direct effects on habitat [1,4]	Section 4.20 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
2. Productivity rate - Sufficient to maintain a stable or increasing population	Changes in prey availability [1,4]		None	No change	No AESI
3. Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population	Collision [1,2]		None	No change	No AESI
4. Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
5. Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site					
6. Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population					
7. Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA					

Table 3-45 In-combination assessment of adverse effects on site integrity for Old Head of Kinsale SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-44.
		Kittiwake	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be

Impact	Phase	SCI(s)	Area	In-combination assessment
				no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-44 .
	O&M	Kittiwake	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-44.
		Kittiwake	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-44 ex situ.
	Construction	Kittiwake	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-44.
		Kittiwake	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M			When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-44.
		Kittiwake	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-44.
		Kittiwake	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-44.



Impact	Phase	SCI(s)	Area	In-combination assessment
Collision	O&M	Kittiwake	Array site	Project-only collision impacts to the kittiwake feature of Old Head of Kinsale SPA are assessed to be negligible (a total of 0.026 individuals per annum under Design Option A [one mortality per 38.5 years], representing a 0.013% increase to SPA mortality rates under the preferred Band Option 1 CRM, and a total of 0.022 individuals per annum under Representative Scenario Option B [one mortality per 45.5years], representing a 0.011% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Volume 5, Part 2, Section 4.16). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Old Head of Kinsale SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-44.

3.23 Isles of Scilly SPA (England – UK9020288)

42. This SPA is designated in relation to the following feature which have been screened in for consideration within the NIS: European storm petrel. A summary of the in-combination assessment is provided in **Table 3-46**, with the details provided in **Table 3-47**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-46 Summary of adverse effects on site integrity (in-combination) - Isles of Scilly SPA

Objective	Attributes	Targets	Predicted effect(s)	Link to assessment	Mitigation	Residual effect	Conclusion
European storm petrel [A014]							
Subject to natural change, maintain or restore the European storm petrel population, distribution and its supporting habitats in favourable condition.	1. Breeding population: abundance	1. Maintain the size of the breeding population at a level which is above 1,458 (Apparently Occupied Sites, equivalent to pairs), whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent.	Direct effects on habitat [1]	Section 4.21 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Connectivity with supporting habitats	2. Maintain safe passage of birds moving between roosting and feeding areas.	Changes in prey availability [1,5,9]		None	No change	No AESI
	3. Disturbance caused by human activity	3. Restrict the frequency, duration and / or intensity of disturbance affecting roosting, nesting, foraging, feeding, moulting and/or loafing birds so that they are not significantly disturbed.					
	4. Predation - all habitats	4. Restrict predation and disturbance caused by native and non-native predators					
	5. Productivity	5. [Maintain or recover] productivity so that breeding success is maximised within the constraints of the site.					
	6. Supporting habitat: air quality	6. Maintain concentrations and deposition of air pollutants at below the site-relevant Critical Load or Level values given for this Feature of the site on the Air Pollution Information System.					
	7. Supporting habitat: conservation measures	7. Maintain the structure, function and supporting processes associated with the Feature and its supporting habitat through management or other measures (whether within and/or outside the site boundary as appropriate) and ensure these measures are not being undermined or compromised.					
	8. Supporting habitat: extent, distribution and availability of supporting habitat for the breeding season	8. Maintain the extent, distribution and availability of suitable habitat (either within or outside the site boundary) which supports the Feature for all necessary stages of its breeding cycle (courtship, nesting, feeding).					
	9. Supporting habitat: food availability (bird)	9. Maintain the distribution, abundance and availability of key food and prey items (e.g., herring, sprat, gobies, jellyfish, ichthyoplankton, microzooplankton) at preferred sizes					
	10. Supporting habitat: water quality - contaminants	10. Reduce aqueous contaminants to levels equating to High Status according to Annex VIII and Good Status according to Annex V of the Water Framework Directive, avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	11. Supporting habitat: water quality - dissolved oxygen	11. Maintain the dissolved oxygen (DO) concentration at levels equating to High Ecological Status (specifically ≥5.7 mg/l (at 35 salinity) for 95 % of year) avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	12. Supporting habitat: water quality - nutrients	12. Maintain water quality at mean winter dissolved inorganic nitrogen levels where biological indicators of eutrophication (opportunistic macroalgal and phytoplankton blooms) do not affect the integrity of the site and Features, avoiding deterioration from existing levels. This target was set using the Environmental Agency 2019 water body classifications data.					
	13. Supporting habitat: water quality - turbidity	13. Maintain natural levels of turbidity (e.g., concentrations of suspended sediment, plankton and other material) across the habitat.					
	14. Predation - burrow-nesting seabirds	14. Eradicate the occurrence of introduced predators, e.g., rats	Introduction or spread of INNS [1,5,9]]		See high-level assessment in Section 3.1.		No AESI

Table 3-47 In-combination assessment of adverse effects on site integrity for Isles of Scilly SPA

Impact	Phase	Feature(s)	Area	In-combination assessment
Direct effects on habitat	Construction	European storm petrel	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-46.
		European storm petrel	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-46.
	O&M	European storm petrel	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-46.
		European storm petrel	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination

Impact	Phase	Feature(s)	Area	In-combination assessment
				effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-46 ex situ.
Changes in prey availability	Construction	European storm petrel	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-46.
		European storm petrel	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-46.
	O&M	European storm petrel	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require

Impact	Phase	Feature(s)	Area	In-combination assessment
				disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-46.
		European storm petrel	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-46.

3.24 Horn Head to Fanad Head SPA (IE004194)

43. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-48**, with the details provided in **Table 3-49**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-48 Summary of adverse effects on site integrity (in-combination) - Horn Head to Fanad Head SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [fulmar] the Favourable conservation condition of the SCI in Horn Head to Fanad Head SPA, which is defined by the following list of attributes and targets:	Fulmar [A009]				
1. Breeding population size - Long term SPA population trend is stable or increasing	Direct effects on habitat [1,4]	Section 4.22 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
2. Productivity rate - Sufficient to maintain a stable or increasing population	Changes in prey availability [1,4]		None	No change	No AESI
3. Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
4. Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target					
5. Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site					
6. Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population					
7. Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA					

Table 3-49 In-combination assessment of adverse effects on site integrity for Horn Head to Fanad Head SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-48.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M			no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-48 .
		Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-48.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-48 ex situ.
Changes in prey availability	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-48.
		Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M			When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-48.
		Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-48.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-48.

3.25 Beara Peninsula SPA (IE004155)

44. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-50**, with the details provided in **Table 3-51**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-50 Summary of adverse effects on site integrity (in-combination) - Beara Peninsula SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To maintain [fulmar] the Favourable conservation condition of the SCI in Beara Peninsula SPA, which is defined by the following list of attributes and targets:	Fulmar [A009]				
1. Breeding population size - No significant decline	Direct effects on habitat [1,4]	Section 4.23 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
2. Productivity rate - Sufficient to maintain population	Changes in prey availability [1,4]		None	No change	No AESI
3. Distribution: Extent of AOS within the colony - No significant change in coverage	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
4. Prey biomass available - No significant decline					
5. Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on fulmar at the breeding site					
6. Disturbance at marine areas immediately adjacent to the colony - Disturbance occurs at levels that do not significantly impact on breeding fulmar					
7. Barriers to connectivity - No significant increase					

Table 3-51 In-combination assessment of adverse effects on site integrity for Beara Peninsula SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-50.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-50.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-50.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-50 ex situ.
Changes in prey availability	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-50.
		Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M			discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-50.
		Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability within the array site on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-50.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability within the OECC on an <i>ex situ</i> basis are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-50.

3.26 Tory Island SPA (IE004073)

45. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-52**, with the details provided in **Table 3-53**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-52 Summary of adverse effects on site integrity (in-combination) - Tory Island SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To maintain [fulmar] the Favourable conservation condition of the SCI in Tory Island SPA, which is defined by the following list of attributes and targets:	Fulmar [A009]				
- Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2,4]	Section 4.24 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI

Table 3-53 In-combination assessment of adverse effects on site integrity for Tory Island SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-52.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M			no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-52 .
		Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts on an <i>ex situ</i> basis within the array site represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-52.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-52.
Changes in prey availability	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-52.
		Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to <i>ex situ</i> seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M			When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-52.
		Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-52.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves.



Impact	Phase	SCI(s)	Area	In-combination assessment
				Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-52 .

3.27 The Bull and the Cow Rocks SPA (IE004066)

46. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: gannet. A summary of the in-combination assessment is provided in **Table 3-54**, with the details provided in **Table 3-55**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-54 Summary of adverse effects on site integrity (in-combination) - The Bull and the Cow Rocks SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To maintain [gannet] the Favourable conservation condition of the SCI in The Bull and Cow Rocks SPA, which is defined by the following list of attributes and targets: - Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Gannet [A016]				
	Direct effects on habitat [1,4]	Section 4.25 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and Displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI

Table 3-55 In-combination assessment of adverse effects on site integrity for The Bull and Cow Rocks SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Gannet	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-54.
		Gannet	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects

Impact	Phase	SCI(s)	Area	In-combination assessment
				and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-54.
	O&M	Gannet	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-54.
		Gannet	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-54 ex situ.
	Construction	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the gannet SCI of The Bull and the Cow Rocks SPA are assessed to be negligible (a total of 0.013 individuals per annum [one mortality per 77 years], representing a 0.001% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.25). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of The Bull and the Cow Rocks SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of The Bull and the Cow Rocks SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and

Impact	Phase	SCI(s)	Area	In-combination assessment
				displacement impacts to this SCI of The Bull and the Cow Rocks SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-54.
	O&M	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the gannet SCI of The Bull and the Cow Rocks SPA are assessed to be negligible (a total of 0.027 individuals per annum [one mortality per 37 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.25). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of The Bull and the Cow Rocks SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of The Bull and the Cow Rocks SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of The Bull and the Cow Rocks SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-54.
Changes in prey availability	Construction	Gannet	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-54.
		Gannet	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed

Impact	Phase	SCI(s)	Area	In-combination assessment
				assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-54.
	O&M	Gannet	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-54.
		Gannet	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-54.

Impact	Phase	SCI(s)	Area	In-combination assessment
Collision	O&M	Gannet	Array site	Project-only collision impacts to the gannet SCI of The Bull and the Cow Rocks SPA are assessed to be negligible (a total of 0.003 individuals per annum under both Design Options A and B [one mortality per 333 years], representing a <0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Addendum (Part 1), Section 4.25. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Section 4.25 of NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of The Bull and the Cow Rocks SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-54.

3.28 West Donegal Coast SPA (IE004150)

47. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-56**, with the details provided in **Table 3-57**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-56 Summary of adverse effects on site integrity (in-combination) - West Donegal Coast SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [fulmar] the Favourable conservation condition of the SCI in West Donegal Coast SPA, which is defined by the following list of attributes and targets:	Fulmar [A009]				
- Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,4]	Section 4.26 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI

Table 3-57 In-combination assessment of adverse effects on site integrity for West Donegal Coast SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-56.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-56.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-56.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-56 ex situ.
	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-56.
		Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site.

Impact	Phase	SCI(s)	Area	In-combination assessment
				The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-56.
	O&M	Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-56.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-56.

3.29 Deenish Islands and Scariff Island SPA (IE004175)

48. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: fulmar and Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-58**, with the details provided in **Table 3-59**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-58 Summary of adverse effects on site integrity (in-combination) - Deenish Islands and Scariff Island SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [fulmar] / maintain [manx shearwater] the Favourable conservation condition of the SCI in Deenish Islands and Scariff Island SPA, which is defined by the following list of attributes and targets: - Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Fulmar [A009]				
	Direct effects on habitat [1,4]	Section 4.27 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
	Manx shearwater [A013]				
	Direct effects on habitat [1,4]	Section 4.27 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and Displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Artificial lighting impacts [1,2,4,6]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI

Table 3-59 In-combination assessment of adverse effects on site integrity for Deenish Islands and Scariff Island SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar, Manx shearwater	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-58.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar, Manx shearwater	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-58.
		Fulmar, Manx shearwater	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-58.
		Fulmar, Manx shearwater	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-58 ex situ.
Disturbance and displacement	Construction	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater SCI of Deenish Islands and Scariff Island SPA are assessed to be negligible (a total of 0.014 individuals per annum [one mortality per 71 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.27). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Deenish Island and Scariff Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential.

Impact	Phase	SCI(s)	Area	In-combination assessment
				This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Deenish Islands and Scariff Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Deenish Islands and Scariff Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-58.
	O&M	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the Manx shearwater SCI of Deenish Islands and Scariff Island SPA are assessed to be negligible (a total of 0.028 individuals per annum [one mortality per 36 years], representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.27). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Deenish Island and Scariff Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Deenish Islands and Scariff Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Deenish Islands and Scariff Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-58.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-58.
Changes in prey availability	Construction	Fulmar, Manx shearwater	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts

Impact	Phase	SCI(s)	Area	In-combination assessment
				to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-58.
		Fulmar, Manx shearwater	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-58.
	O&M	Fulmar, Manx shearwater	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves.

Impact	Phase	SCI(s)	Area	In-combination assessment
				Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-58 .
		Fulmar, Manx shearwater	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-58.

3.30 Iveragh Peninsula SPA (IE004154)

49. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-60**, with the details provided in **Table 3-61**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-60 Summary of adverse effects on site integrity (in-combination) - Iveragh Peninsula SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To maintain [fulmar] the Favourable conservation condition of the SCI in Iveragh Peninsula SPA, which is defined by the following list of attributes and targets:	Fulmar [A009]				
1. Breeding population size - Long term SPA population trend is stable or increasing	Direct effects on habitat [1,4]	Section 4.28 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
2. Productivity rate - Sufficient to maintain a stable or increasing population	Changes in prey availability [1,4]		None	No change	No AESI
3. Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
4. Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target					
5. Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site					
6. Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population					
7. Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA					

Table 3-61 In-combination assessment of adverse effects on site integrity for Iveragh Peninsula SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-60.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP.

Impact	Phase	SCI(s)	Area	In-combination assessment
				The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-60 .
	O&M	Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-60.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-60 ex situ.
Changes in prey availability	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-60.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-60.
		Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-60.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially



Impact	Phase	SCI(s)	Area	In-combination assessment
				discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-60.

3.31 Puffin Island SPA (IE004003)

50. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: fulmar and Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-62**, with the details provided in **Table 3-63**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-62 Summary of adverse effects on site integrity (in-combination) - Puffin Island SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To maintain [fulmar, manx shearwater] the Favourable conservation condition of the SCI in Puffin Island SPA, which is defined by the following list of attributes and targets: - Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Fulmar [A009]				
	Direct effects on habitat [1,4]	Section 4.29 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
	Manx shearwater [A013]				
	Direct effects on habitat [1,4]	Section 4.29 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and Displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Artificial lighting impacts [1, 2, 4, 6]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI

Table 3-63 In-combination assessment of adverse effects on site integrity for Puffin Island SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar, Manx shearwater	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-62.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar, Manx shearwater	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-62.
		Fulmar, Manx shearwater	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-62.
		Fulmar, Manx shearwater	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-62 ex situ.
Disturbance and displacement	Construction	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater SCI of Puffin Island SPA are assessed to be negligible (a total of 0.038 individuals per annum [one mortality per 26 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.29). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Puffin Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential.

Impact	Phase	SCI(s)	Area	In-combination assessment
				This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Puffin Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Puffin Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-62.
	O&M	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the Manx shearwater SCI of Puffin Island SPA are assessed to be negligible (a total of 0.077 individuals per annum [one mortality per 13 years], representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.29). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Puffin Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Puffin Island SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Puffin Island SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-62.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-62.
Changes in prey availability	Construction	Fulmar, Manx shearwater	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	SCI(s)	Area	In-combination assessment
				When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-62.
		Fulmar, Manx shearwater	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-62.
	O&M	Fulmar, Manx shearwater	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-62.

Impact	Phase	SCI(s)	Area	In-combination assessment
		Fulmar, Manx shearwater	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1), impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-62.

3.32 Skelligs SPA (IE004007)

51. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: fulmar, gannet and Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-64**, with the details provided in **Table 3-65**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-64 Summary of adverse effects on site integrity (in-combination) - Skelligs SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [fulmar, gannet] / maintain [Manx shearwater] the Favourable conservation condition of the SCI in Skelligs SPA, which is defined by the following list of attributes and targets: - Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Fulmar [A009]				
	Direct effects on habitat [1,4]	Section 4.30 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Gannet [A016]				
	Direct effects on habitat [1,4]	Section 4.30 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and Displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Collision [1,2]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Manx shearwater [A013]				
	Direct effects on habitat [1,4]	Section 4.30 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and Displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Artificial lighting impacts [1,2,4,6]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI

Table 3-65 In-combination assessment of adverse effects on site integrity for Skelligs SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar, Manx shearwater, Gannet	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-64.

Impact	Phase	SCI(s)	Area	In-combination assessment
		Fulmar, Manx shearwater, Gannet	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-64.
	O&M	Fulmar, Manx shearwater, Gannet	array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-64.
		Fulmar, Manx shearwater, Gannet	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-64 ex situ.
Disturbance and displacement	Construction	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the gannet SCI of Skelligs SPA are assessed to be negligible (a total of 0.073 individuals per annum [one mortality per 14 years], representing a 0.001% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.30). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential.

Impact	Phase	SCI(s)	Area	In-combination assessment
				This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Skelligs SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-64.
		Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater SCI of Skelligs SPA are assessed to be negligible (a total of 0.004 individuals per annum [one mortality per 250 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.30). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Skelligs SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-64.
	O&M	Gannet – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the gannet SCI of Skelligs SPA are assessed to be negligible (a total of 0.147 individuals per annum [one mortality per 6.8 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.30). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Skelligs SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-64.
		Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the Manx shearwater SCI of Skelligs SPA are assessed to be negligible (a total of 0.009 individuals per annum [one mortality per 111 years], representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see NIS Volume 5, Part 2, Section 4.30). It is therefore considered that the negligible project-only contribution to in-combination disturbance

Impact	Phase	SCI(s)	Area	In-combination assessment
				and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Volume 5, Part 2, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Skelligs SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-64.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-64.
Changes in prey availability	Construction	Fulmar, Manx shearwater, Gannet	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-64.
		Fulmar, Manx shearwater, Gannet	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M			When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-64.
		Fulmar, Manx shearwater, Gannet	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-64.
		Fulmar, Manx shearwater, Gannet	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site.



Impact	Phase	SCI(s)	Area	In-combination assessment
				The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-64.
Collision	O&M	Gannet	Array site	Project-only collision impacts within the array site to the gannet SCI of Skelligs SPA are assessed to be negligible (a total of 0.019 individuals per annum under Design Option A [one mortality per 53 years], representing a <0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM, and a total of 0.016 individuals per annum under Design Option B [one mortality per 63 years], representing a <0.001% increase to SPA mortality rates under the preferred Band Option 1 CRM – see NIS Addendum (Part 1), Section 4.30). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is therefore considered that the negligible project-only contribution to in-combination collision impacts to this SCI of Skelligs SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-64.

3.33 Rum SPA (Scotland – UK9001341)

52. This SPA is designated in relation to the following feature which have been screened in for consideration within the NIS: Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-66**, with the details provided in **Table 3-67**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-66 Summary of adverse effects on site integrity (in-combination) - Rum SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
To ensure that the qualifying features of the SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status. To ensure that the integrity of the SPA is restored in the context of environmental changes by meeting the following for each qualifying feature: 1. The populations of the qualifying features are viable components of the SPA. 2. The distributions of the qualifying features throughout the site are maintained by avoiding significant disturbance of the species. 3. The supporting habitats and processes relevant to qualifying features and their prey/food resources are maintained, or where appropriate, restored at the SPA	Manx shearwater [A013]				
	Direct effects on habitat [1,3]	Section 4.31 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [1]		None	No change	No AESI
	Artificial lighting impacts [1,3]		None	No change	No AESI
	Changes in prey availability [1,3]		None	No change	No AESI
	Introduction or spread of INNS [1,3]	See high level assessment in Section 3.1 .			No AESI

Table 3-67 In-combination assessment of adverse effects on site integrity for Rum SPA

Impact	Phase	Feature(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Manx shearwater	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-66.
		Manx shearwater	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-66.

Impact	Phase	Feature(s)	Area	In-combination assessment
	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-66.
		Manx shearwater	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-66 ex situ.
Disturbance and displacement	Construction	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater feature of Rum SPA are assessed to be negligible (a total of 0.725 individuals per annum, representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see Volume 5, Part 2 of the NIS. It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Rum SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Rum SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Rum SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to feature Conservation Objectives stated in Table 3-66.
	O&M	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with operation and maintenance phase activities within the array site to the Manx shearwater feature of Rum SPA are assessed to be negligible (a total of 1.451 individuals per annum, representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see Volume 5, Part 2 of the NIS. It is

Impact	Phase	Feature(s)	Area	In-combination assessment
				therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Rum SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this feature of Rum SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this feature of Rum SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-66.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), The proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-66.
Changes in prey availability	Construction	Manx shearwater	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-66.
		Manx shearwater	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods.

Impact	Phase	Feature(s)	Area	In-combination assessment
	O&M			When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-66.
		Manx shearwater	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-66.
		Manx shearwater	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site.



Impact	Phase	Feature(s)	Area	In-combination assessment
				The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-66.

3.34 Mingulay and Berneray SPA (Scotland – UK9001121)

53. This SPA is designated in relation to the following feature which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-68**, with the details provided in **Table 3-69**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-68 Summary of adverse effects on site integrity (in-combination) - Mingulay and Berneray SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
To avoid deterioration of the habitats of the qualifying species or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained.	Fulmar [A009]				
To ensure for the qualifying species that the following are maintained in the long term: 1. Population of the species as a viable component of the site 2. Distribution of the species within site 3. Distribution and extent of habitats supporting the species 4. Structure, function and supporting processes of habitats supporting the species 5. No significant disturbance of the species	Direct effects on habitat [1,3,4]	Section 4.32 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,3,4]		None	No change	No AESI
	Introduction or spread of INNS [1,3,4]	See high-level assessment in Section 3.1.			No AESI

Table 3-69 In-combination assessment of adverse effects on site integrity for Mingulay and Berneray SPA

Impact	Phase	Feature(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to feature Conservation Objectives stated in Table 3-68.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to feature Conservation Objectives stated in Table 3-68.

Impact	Phase	Feature(s)	Area	In-combination assessment
	O&M	Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-68.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird feature habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-68 ex situ.
	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-68.
		Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter

Impact	Phase	Feature(s)	Area	In-combination assessment
				durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-68.
	O&M	Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-68.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site.



Impact	Phase	Feature(s)	Area	In-combination assessment
				The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-68.

3.35 Blasket Islands SPA (IE004008)

54. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: fulmar and Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-70**, with the details provided in **Table 3-71**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-70 Summary of adverse effects on site integrity (in-combination) - Blasket Islands SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To maintain [fulmar, manx shearwater] the Favourable conservation condition of the SCI in Blasket Islands SPA, which is defined by the following list of attributes and targets: - Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Fulmar [A009]				
	Direct effects on habitat [1,4]	Section 4.33 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI
	Manx shearwater [A013]				
	Direct effects on habitat [1,4]	Section 4.33 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and Displacement (including barrier effects) [1,2,4,6,7]		None	No change	No AESI
	Artificial lighting impacts [1,2,4,6]		None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1.			No AESI

Table 3-71 In-combination assessment of adverse effects on site integrity for Blasket Islands SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar, Manx shearwater	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-70.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar, Manx shearwater	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-70.
		Fulmar, Manx shearwater	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-70.
		Fulmar, Manx shearwater	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-70 ex situ.
Disturbance and displacement	Construction	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater SCI of Blasket Islands SPA are assessed to be negligible (a total of 0.118 individuals per annum [one mortality per 8.5 years], representing a 0.002% increase to SPA mortality rates for evidence-led central value displacement figures – see Volume 5, Part 2 of the NIS). It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Blasket Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential.

Impact	Phase	SCI(s)	Area	In-combination assessment
				This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Blasket Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the construction phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Blasket Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during construction with regard to SCI Conservation Objectives stated in Table 3-70.
	O&M	Manx shearwater – indirect habitat loss and barrier effects	Array site	<i>ex situ</i> project-only disturbance and displacement impacts associated with construction phase activities within the array site to the Manx shearwater SCI of Blasket Islands SPA are assessed to be negligible (a total of 0.236 individuals per annum [one mortality per 4.2 years], representing a 0.005% increase to SPA mortality rates for evidence-led central value displacement figures – see Volume 5, Part 2 of the NIS. It is therefore considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Blasket Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Although this SCI of Blasket Islands SPA may also experience disturbance and displacement from those other projects listed in Table 3-1 which are also within this species' mean maximum (+ 1 SD) foraging range of the SPA during the operation and maintenance phase of the CWP Project, it is considered that the negligible project-only contribution to in-combination disturbance and displacement impacts to this SCI of Blasket Islands SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement impacts during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-70.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-70.
Changes in prey availability	Construction	Fulmar, Manx shearwater	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts

Impact	Phase	SCI(s)	Area	In-combination assessment
				to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-70.
		Fulmar, Manx shearwater	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-70.
	O&M	Fulmar, Manx shearwater	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves.

Impact	Phase	SCI(s)	Area	In-combination assessment
				Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-70 .
		Fulmar, Manx shearwater	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCIs. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCIs. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-70.

3.36 Dingle Peninsula SPA (IE004153)

55. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-72**, with the details provided in **Table 3-73**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-72 Summary of adverse effects on site integrity (in-combination) – Dingle Peninsula SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To restore [fulmar] the Favourable conservation condition of the SCI in Dingle Peninsula SPA, which is defined by the following list of attributes and targets: - Breeding population size - Long term SPA population trend is stable or increasing - Productivity rate - Sufficient to maintain a stable or increasing population - Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population - Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target - Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site - Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population - Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA	Fulmar [A009]				
	Direct effects on habitat [1,4]	Section 4.34 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Changes in prey availability [1,4]		None	No change	No AESI
	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI

Table 3-73 In-combination assessment of adverse effects on site integrity for Dingle Peninsula SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-72.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP.

Impact	Phase	SCI(s)	Area	In-combination assessment
				The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-72 .
	O&M	Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-72.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-72 ex situ.
	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-72.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-72.
		Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-72.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially



Impact	Phase	SCI(s)	Area	In-combination assessment
				discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-72.

3.37 Kerry Head SPA (IE002263)

56. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: fulmar. A summary of the in-combination assessment is provided in **Table 3-74**, with the details provided in **Table 3-75**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-74 Summary of adverse effects on site integrity (in-combination) - Kerry Head SPA

Objective: Attributes and targets	Predicted effect	Link to assessment	Mitigation	Residual effect	Conclusion
Objective: To maintain [fulmar] the Favourable conservation condition of the SCI in Kerry Head SPA, which is defined by the following list of attributes and targets:	Fulmar [A009]				
1. Breeding population size - Long term SPA population trend is stable or increasing	Direct effects on habitat [1,4]	Section 4.35 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
2. Productivity rate - Sufficient to maintain a stable or increasing population	Changes in prey availability [1,4]		None	No change	No AESI
3. Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population	Introduction or spread of INNS [1,2,3]	See high-level assessment in Section 3.1 .			No AESI
4. Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target					
5. Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site					
6. Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population					
7. Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA					

Table 3-75 In-combination assessment of adverse effects on site integrity for Kerry Head SPA

Impact	Phase	SCI(s)	Area	In-combination assessment
Direct effects on habitat	Construction	Fulmar	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-74.
		Fulmar	OECC	Project-only construction phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP.

Impact	Phase	SCI(s)	Area	In-combination assessment
				The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during O&M with regard to SCI Conservation Objectives stated in Table 3-74 .
	O&M	Fulmar	Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-74.
		Fulmar	OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5, part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-74ex situ.
Changes in prey availability	Construction	Fulmar	Array site	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Although some seabird prey species (such as gadoids, clupeids and sandeels) may be susceptible to injury or mortality from underwater noise generated by construction phase piling activities, such impacts are considered to occur only within very low proportions of theoretical <i>ex situ</i> seabird foraging areas. Impacts to seabird prey species from CWP project construction activities (noise and SSC), are not considered to translate into population-level consequences to seabird predators. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-74.

Impact	Phase	SCI(s)	Area	In-combination assessment
	O&M	Fulmar	OECC	Project-only construction phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCIs. <i>ex situ</i> areas affected by increased SSC levels, as well as the spatial extents of altered or removed areas of benthic habitat during construction phase activities are also assessed to be of negligible size in relation to seabird breeding and non-breeding season range extents, with SSC impacts occurring over considerably shorter durations. Furthermore, piling activities do not form part of the construction phase activities within the OECC, with this impact being restricted to the array area only. This is considered to be true for the seabird breeding, migration and / or wintering periods. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCIs themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-74.
		Fulmar	Array site	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the array site are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.49 km² of previously available benthic habitat within the array site as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-74.
		Fulmar	OECC	Project-only operation and maintenance phase impacts arising from changes in prey availability on an <i>ex situ</i> basis within the OECC are considered to represent a negligible proportion prey availability for the seabird SCI. Key seabird prey species may experience the loss of up 0.11 km² of previously available benthic habitat within the OECC as a result of occupancy of the seabed by infrastructure during the operation and maintenance phase of the CWP Project. The areas which may experience long-term alteration of any benthic habitats which have the potential to support populations of key seabird prey species constitute only a very small proportion of the extent of <i>ex situ</i> foraging areas available to seabird SCI. Operation and maintenance phase activities do not require disturbance of the seabed, and neither are piling works or any other very high energy underwater noise inducing activities required. There is not considered to be a pathway for operation and maintenance phase underwater noise or SSC impacts to have the potential to cause changes to prey availability in such a way that could impact seabird SCI. This is considered to be true for the seabird breeding, migration and / or wintering periods. Furthermore, the magnitude of impacts to potentially sensitive fish species arising from the presence of an EMF around infrastructure cables are assessed as being very low. When combined with other projects screened in to in-combination assessment (Table 3-1) impacts on prey availability are considered similarly negligible. This is on the basis that the effects of other projects on fish populations, and therefore prey availability, are spatially

Impact	Phase	SCI(s)	Area	In-combination assessment
				discrete, other projects must comply with all applicable planning and environmental approval requirements and be in accordance with the relevant Development Plan and / or relevant planning framework such as the NMPF, and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total impact on prey availability, is therefore considered to be negligible in relation to seabird prey species' habitat extents, and by extension to the habitat use areas available to seabird SCI themselves. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-74.

Marine Area SPAs

3.38 North-west Irish Sea SPA (IE004236)

57. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: red-throated diver, great northern diver, fulmar, Manx shearwater, cormorant, shag, common scoter, little gull, black-headed gull, common gull, lesser black-backed gull, herring gull, great black-backed gull, kittiwake, roseate tern, common tern, Arctic tern, little tern, guillemot, razorbill, puffin. A summary of the in-combination assessment is provided in **Table 3-76**, with the details provided in **Table 3-77**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-76 Summary of assessment of adverse effects on site integrity (in-combination) - North-west Irish Sea SPA

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Kittiwake [A188]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size	1. Long-term SPA population trend is stable or increasing	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Changes in prey availability [1,2,3]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Collision [1]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
5. Barriers to connectivity	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA						
Fulmar [A009]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size	1. Long-term SPA population trend is stable or increasing	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Changes in prey availability [1,2,3]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Introduction or spread of INNS [1,2,3]		See high level assessment in Section 3.1.		No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution					
	5. Barriers to connectivity	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA					
Cormorant [A017]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size	1. Long-term population trend within the SPA is stable or increasing	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement [1,2,3,4]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
	3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Changes in prey availability [1,2,3] Collision [1] Introduction or spread of INNS [1,2,3]		None None	No change No change	No AESI No AESI
					See high level assessment in Section 3.1.		No AESI
Herring gull [A184]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size	1. Long-term SPA population trend is stable or increasing	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Changes in prey availability [1,2,3]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Collision [1]		None	No change	No AESI
	4. Disturbance across the site 5. Barriers to connectivity	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
	Lesser black-backed gull [A183]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Changes in prey availability [1,2,3]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Collision [1]		None	No change	No AESI
	4. Disturbance across the site 5. Barriers to connectivity	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
	Guillemot [A199]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
	4. Disturbance across the site 5. Barriers to connectivity	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.			No AESI
Razorbill [A200]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site 5. Barriers to connectivity	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.			No AESI
Puffin [A204]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size	1. Long-term SPA population trend is stable or increasing	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site 5. Barriers to connectivity	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.			No AESI
Manx shearwater [A013]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
	5. Barriers to connectivity	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Artificial lighting impacts [1,2,3,4]		None	No change	No AESI
		5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Changes in prey availability [1,2,3]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Common tern [A193]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement [1,2,3,4]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target			None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution			None	No change	No AESI
	5. Barriers to connectivity	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Collision [1]	None	No change	No AESI	
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Arctic tern [A194]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement [1,2,3,4]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target			None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution			None	No change	No AESI
	5. Barriers to connectivity	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Collision [1]	None	No change	No AESI	
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Roseate tern [A192]							
To maintain the favourable	1. Breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part	None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
conservation condition of the SCI in the SPA	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement [1,2,3,4]	2, and NIS Addendum (Part 1)	None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Collision [1]		None	No change	No AESI
	5. Barriers to connectivity	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
	Shag [A018]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size	1. Long-term SPA population trend is stable or increasing	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement [1,2,3,4]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Collision [1]		None	No change	No AESI
	5. Barriers to connectivity	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
	Great northern diver [A003]						
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Collision [1]		None	No change	No AESI
	5. Barriers to connectivity and site use	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Little tern [A195]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Collision [1]		None	No change	No AESI
	5. Barriers to connectivity	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA					
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
Red-throated diver [A001]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Collision [1]		None	No change	No AESI
	5. Barriers to connectivity and site use	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA					
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
Common scoter [A065]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
	4. Disturbance across the site						

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
	5. Barriers to connectivity and site use	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Collision [1]		None	No change	No AESI
		5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
Black-headed gull [A179]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Changes in prey availability [1,2,3]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Collision [1]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
	5. Barriers to connectivity and site use	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA					
Common gull [A182]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Changes in prey availability [1,2,3]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Collision [1]		None	No change	No AESI
	4. Disturbance across the site	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
	5. Barriers to connectivity and site use	5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA					
Little gull [A177]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
	3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Changes in prey availability [1,2,3]		None	No change	No AESI
		4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Collision [1]		None	No change	No AESI
		5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .		No AESI	
Great black-backed gull [A187]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size	1. No significant decline	Direct effects on habitat [1,2]	Section 4.36 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	2. Spatial distribution	2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Changes in prey availability [1,2,3]		None	No change	No AESI
	3. Forage spatial distribution, extent, abundance and availability	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Collision [1]		None	No change	No AESI
	4. Disturbance across the site 5. Barriers to connectivity and site use	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .		No AESI	

Table 3-77 In-combination assessment of adverse effects on site integrity for North-west Irish Sea SPA

Impact	Phase	SCI (s)	Area	In-combination assessment
Direct effects on habitat	Construction	Red-throated diver, great northern diver, fulmar, Manx shearwater, cormorant, shag, common scoter, little gull, black-headed gull, common gull, lesser black-backed gull, herring gull, great black-backed gull, kittiwake, roseate tern, common tern, Arctic tern, little tern, guillemot, razorbill, puffin	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-76.
			OECC intertidal landfall	The <i>ex situ</i> effects on habitat from construction phase activities within this area will result in very limited impacts on these SPA SCIs. As the spatial extent of impacts will be small at any given moment in time during construction phase activities in comparison to the

Impact	Phase	SCI (s)	Area	In-combination assessment
				available habitat, and given the rate of recoverability of available habitat following backfilling and removal of supporting infrastructure and/or vehicles, This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Direct effects on habitat impact footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-76.
	O&M		Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-76.
			OECC intertidal landfall	The <i>ex situ</i> effects from disturbance and displacement from construction phase activities within this area will result in very limited impacts on these SPA SCIs. Given the limited potential connectivity between with construction phase activities within South Dublin Bay, it is considered that the numbers of individuals experiencing potential disturbance from construction phase activities within South Dublin Bay which also utilise these SPAs are low, or zero, for all wildfowl and wader species which are SCIs of these SPAs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 8.2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-76.
Disturbance and displacement	Construction	Guillemot, razorbill, puffin, Manx shearwater, great northern diver, red-throated diver, common scoter and little gull	Array site	For all SCIs, as the separation distance between the array site and this SPA (21.35 km) is greater than the maximum distance at which individuals within the SPA may experience disturbance effects, disturbance and displacement in the form of <i>ex situ</i>, indirect habitat loss around WTGs as they are installed, and construction phase activities within the array site will not adversely affect the spatial distribution of these SCIs or their supporting habitats within the SPA (Section 4.36 of Volume 5 Part 2 of the NIS. Barrier effects are also determined to be negligible for all SCIs, and will similarly not impact on the conservation objects, attributes and targets of these SCIs (Section 4.36 of Volume 5 Part 2 of the NIS). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects listed in screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS, Section 4.36). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no

Impact	Phase	SCI (s)	Area	In-combination assessment
				in-combination AESI as a result of disturbance and displacement from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-76 .
		Guillemot, razorbill, puffin, cormorant, shag, great northern diver, red-throated diver, common scoter and little gull	OECC	For most SCIs, the separation distance between the OECC and this SPA (1.27 km) is greater than the maximum distance at which disturbance effects may arise from construction phase activities within the OECC, or for some SCIs (cormorant, shag, great northern diver, red-throated diver and common scoter) a population within only a very small proportion of the SPA (<0.1% of SPA area) may experience <i>ex situ</i> disturbance and only then from works over an extremely limited duration if they occur within the northernmost extent of the OECC (Section 4.36 of Volume 5 Part 2 of the NIS). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects listed in screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS, Section 4.36). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-76.
		Common tern, Arctic tern, lesser black-backed gull, herring gull, cormorant, red-throated diver, great northern diver, common scoter, black-headed gull, common gull, great black-backed gull.	OECC intertidal landfall	The <i>ex situ</i> effects from disturbance and displacement from construction phase activities within this area will result in very limited impacts on these SPA SCIs. Given the limited potential connectivity between with construction phase activities within South Dublin Bay, it is considered that the numbers of individuals experiencing potential disturbance from construction phase activities within South Dublin Bay which also utilise these SPAs are low, or zero, for all wildfowl and wader species which are SCIs of these SPAs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-76.
	O&M	Guillemot, razorbill, puffin, Manx shearwater, great northern diver, red-throated diver, common scoter and little gull	Array site	For all SCIs, as the separation distance between the array site and this SPA (21.35 km) is greater than the maximum distance at which individuals within the SPA may experience disturbance effects, disturbance and displacement in the form of <i>ex situ</i> indirect habitat loss around installed WTGs, and operation and maintenance phase activities within the array site will not adversely affect the spatial distribution of these SCIs or their supporting habitats within the SPA (Section 4.36 of Volume 5 Part 2 of the NIS). Barrier effects are also determined to be negligible for all SCIs, and will similarly not impact on the conservation objects, attributes and targets of these SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects listed in screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS Section 4.36). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from operation and maintenance phase activities with regard to SCI Conservation Objectives stated in Table 3-76.
		Guillemot, razorbill, puffin, Manx shearwater, great northern diver, red-throated diver, common scoter and little gull	OECC	For most SCIs, the separation distance between the OECC and this SPA (1.27 km) is greater than the maximum distance at which disturbance effects may arise from operation and maintenance phase activities within the OECC, or for some SCIs (cormorant, shag, great northern diver, red-throated diver and common scoter) a population within only a very small proportion of the SPA (<0.1% of SPA area) may experience disturbance and only then from works over an extremely limited duration if they occur within the northernmost extent of the OECC (Section 4.36 of Volume 5 Part 2 of the NIS). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA.

Impact	Phase	SCI (s)	Area	In-combination assessment
				For each and all of the projects listed in screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS, Section 4.36). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from operation and maintenance phase activities during construction with regard to SCI Conservation Objectives stated in Table 3-76 .
		Common tern, Arctic tern, lesser black-backed gull, herring gull, cormorant, red-throated diver, great northern diver, common scoter, black-headed gull, common gull, great black-backed gull.	OECC intertidal landfall	The <i>ex situ</i> effects from disturbance and displacement from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. Given the limited potential connectivity between with construction phase activities within South Dublin Bay, it is considered that the numbers of individuals experiencing potential disturbance from construction phase activities within South Dublin Bay which also utilise these SPAs are low, or zero, for all wildfowl and wader species which are SCIs of these SPAs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-76.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-76.
Changes in prey availability	Construction	Red-throated diver, great northern diver, fulmar, Manx shearwater, cormorant, shag, common scoter, little gull, black-headed gull, common gull, lesser black-backed gull, herring gull, great black-backed gull, kittiwake, roseate tern, common tern, Arctic tern, little tern, guillemot, razorbill, puffin	Array site	Project-only <i>ex situ</i> changes in prey availability impacts to SCIs of North-west Irish Sea SPA arising from construction phase activities within the array site are assessed to be negligible on account of the separation distance between the array site and the SPA (21.35 km) (Volume 5 Part 2 of the NIS, Section 4.36). This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of North-west Irish Sea SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-76 .
			OECC	Project-only <i>ex situ</i> changes in prey availability impacts to SCIs of North-west Irish Sea SPA arising from construction phase activities within the OECC are assessed to be spatially and temporally extremely limited. As suspended sediment plumes created during dredge disposal and trenching operations within the OECC during construction phase works are predicted to enhance SSC levels over up to 4-5 km and 7 km, respectively, for a duration of approximately 10 days for both operations, there is the potential (dependant on tidal conditions) that SSC levels may be temporarily increased within a small area within the south of the North-west Irish Sea SPA (which is 1.27 km from the closest area within the OECC in which these operations may occur). Additionally, very small areas benthic habitat within the OECC which may serve as supporting nursery habitats for key prey species for seabirds within the SPA may be altered or removed during construction phase activities within the OECC. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA.

Impact	Phase	SCI (s)	Area	In-combination assessment
	O&M			This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of North-west Irish Sea SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-76 .
			OECC intertidal landfall	The <i>ex situ</i> effects from changes in prey availability from construction phase activities within this area will result in very limited impacts on these SPA SCIs. Given the high rate of recoverability of the impacted habitat (and associated organisms) and the temporary nature of trenching activities. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-76.
			Array site	Project-only <i>ex situ</i> changes in prey availability impacts to SCIs of North-west Irish Sea SPA arising from operation and maintenance phase activities within the array site are assessed to be negligible on account of the separation distance between the array site and the SPA (21.35 km) (Volume 5 Part 2 of the NIS, Section 4.36). This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of North-west Irish Sea SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from operation and maintenance phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-76 .
			OECC	Project-only <i>ex situ</i> changes in prey availability impacts to SCIs of North-west Irish Sea SPA arising from operation and maintenance phase activities within the OECC are assessed to be negligible as transmission infrastructure will be buried and passive and maintenance works likely to be highly localised and of limited duration should they be required. This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of North-west Irish Sea SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-76.
Collision	O&M	Red-throated diver, great northern diver, cormorant, common scoter, little gull, black-headed gull, lesser black-backed gull,	OECC intertidal landfall	The <i>ex situ</i> effects from changes in prey availability from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. Given the high rate of recoverability of the impacted habitat (and associated organisms) and the temporary nature of trenching activities, This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-76.
			Array site	These SCIs are designated features of North-west Irish Sea SPA due to populations which utilises this area during non-breeding periods. Unlike breeding colony SCIs, non-breeding SCIs are unlikely to act as central place foragers, repeatedly and frequently making return trips from this SPA to areas in which they may experience collision impacts. Project-only collision impacts to these SCIs of North-west Irish Sea SPA are assessed to be negligible on account that either no flight activity was recorded within the array site during baseline ornithological surveys, or that flight activity levels were so low as to

Impact	Phase	SCI (s)	Area	In-combination assessment
				preclude CRM. Should collision events occur, they would do so rarely and not adversely affect SCI populations in terms of Conservation Objectives, attributes and targets (Table 3-1) . In the considering the collision mortality estimates from projects listed in Table 3-1 these are not available or provided; however it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-76.
		Shag, roseate tern, common tern, Arctic tern, little tern		Project-only collision impacts to these SCIs of North-west Irish Sea SPA are assessed to be negligible on account that these species are designated in relation to their breeding populations at SPA colonies surrounding North-west Irish Sea SPA, but the distance between those colonies and the array site is greater than the foraging range of those species. As such, these SCIs of North-west Irish Sea SPA are assessed not to have functional connectivity with the array site. In the considering the collision mortality estimates from projects listed in Table 3-1 these are not available or provided; however it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-76.
		Common gull		Common gull is designated as an SCI of North-west Irish Sea SPA due to the population which utilises this area during non-breeding periods. Unlike breeding colony SCIs, non-breeding SCIs are unlikely to act as central place foragers, repeatedly and frequently making return trips from this SPA to areas in which they may experience collision impacts. Project-only collision impacts to the non-breeding common gull SCI of North-west Irish Sea SPA are assessed to be negligible (a total of 0.1 individuals per annum [one mortality per 10 years, on average] for array site Design Option A and 0.088 individuals per annum [one mortality per 11.4 years, on average] for array site Design Option B). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that this negligible project-only contribution to in-combination collision impacts to this SCI of North-west Irish Sea SPA cannot contribute to AESI in such a way as to adversely affect the Conservation Objective of the SPA to maintain the favourable conservation condition of the SCI. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-76.
		Herring gull		Herring gull is designated as a SCI of North-west Irish Sea SPA due to the number of individuals of this species which use this area throughout the year, and in particular associated with breeding colonies at Lambay Island SPA, Ireland's Eye SPA and Skerries Islands SPA. All of these colonies are within the mean maximum (+ 1 SD) foraging range of herring gull (85.6 km - Woodward <i>et al.</i>, 2019) from the array site, and as such are assessed to have potential connectivity with the array site. Project-only collision mortality of herring gull apportioned to this SPA is 2.52 and 2.14 individuals per annum for array site Designs Option A or B, respectively for preferred Band Option 1 CRMs. A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5 Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination herring gull mortalities apportioned to these SPAs in relation to CWP plus other projects screened in to in-combination assessment (Table 3-1) equals 10.314 individuals (Appendix A). As the combined breeding herring gull population of the listed SPA colonies which contribute to the North-west Irish SPA breeding herring gull population is estimated to be 2,468 individuals (Burnell <i>et al.</i>, 2023) and the average adult annual mortality rate is estimated to be 16.6% (Volume 4, Appendix 10.5 Ornithology Baseline characterisation report of the EIAR) the average annual mortality of herring gull associated with North-west Irish Sea SPA is estimated to be 409.69 individuals. As such, the in-combination collision mortality of CWP project plus other projects screened in to in-combination assessment (Table 3-1), equates to a 2.52% increase in mortality rate of the herring gull SCI of North-west Irish Sea SPA.

Impact	Phase	SCI (s)	Area	In-combination assessment
				As the in-combination impact magnitudes are predicted to result in a greater than 1% increase to annual SPA mortality rates, PVA is required to determine if additional mortality from in-combination collision impacts represents an AESI to the SPA through its consequences to the herring gull SCI breeding population. Proportional impact to the SPA population, calculated as collision mortality divided by the sum of the Lambay Island, Ireland's Eye and Skerries Islands SPAs breeding population sizes (2,468 individuals – 2015 and 2010 counts – Burnell et al., 2023), is 0.00418. The resultant PVA output values were a CGR of 0.995 (and a CPS after the 25-year operational period of 0.878) [Full details of in-combination PVA inputs and outputs are provided in CEA Ornithology Appendix of the CEA Report]. At North-west Irish Sea SPA, where the total herring gull breeding population of key colonies appears to be on average decreasing, consideration is required as to whether additional impacts may meaningfully worsen population decline and a conservative CGR threshold of 0.995 is considered to be prudent in the determination of AESI. In relation to a CGR of 0.995 to a decreasing population, in-combination collision impacts to the herring gull SCI of North-west Irish Sea SPA are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-76. Specifically, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-76.
		Great black-backed gull		Great black-backed gull is designated as an SCI of North-west Irish Sea SPA due to the population of this species which utilises this area during non-breeding periods. Unlike breeding colony SCIs, non-breeding SCIs are unlikely to act as central place foragers, repeatedly and frequently making return trips from this SPA to areas in which they may experience collision impacts. Project-only collision impacts to the non-breeding great black-backed gull SCI of North-west Irish Sea SPA are assessed to be negligible (a total of 0.163 individuals per annum [one mortality per 6.1 years] for array site Design Option A and 0.129 individuals per annum [one mortality per 7.8 years] for array site Design Option B). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. It is considered that this negligible project-only contribution to in-combination collision impacts to this SCI of North-west Irish Sea SPA cannot contribute to AESI in such a way as to adversely affect the Conservation Objective of the SPA to maintain the favourable conservation condition of the SCI. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-76.
		Kittiwake		Kittiwake is designated as a SCI of North-west Irish Sea SPA due to the number of individuals of this species which use this area throughout the year, and in particular associated with breeding colonies at Lambay Island SPA, Howth Head Coast SPA and Ireland's Eye SPA. All of these colonies are within the mean maximum (+ 1 SD) foraging range of kittiwake (300.6 km - Woodward <i>et al.</i>, 2019) from the array site, and as such are assessed to have potential connectivity with the array site. Project-only collision mortality of kittiwake apportioned to this SPA is 0.98 and 0.85 individuals per annum for array site Designs Option A or B, respectively for preferred Band Option 1 CRMs. A conclusion was drawn of no adverse effect on site integrity of this SPA from the project in isolation. As assessed in Volume 5 Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The in-combination kittiwake mortalities apportioned to these SPAs in relation to CWP plus other projects screened in to in-combination assessment (Table 3-1) equals 23.510 individuals (CEA Ornithology Appendix of the CEA Report). As the combined breeding kittiwake population of the listed SPA colonies which contribute to the North-west Irish SPA breeding kittiwake population is estimated to be 10,988 individuals (Burnell et al., 2023) and the average adult annual mortality rate is estimated to be 14.6% (Volume 4, Appendix 10.5 Ornithology Baseline characterisation report of the EIAR) the average annual mortality of kittiwake associated with North-west Irish Sea SPA is estimated to be 1,604.25 individuals. As such, the in-combination collision mortality of CWP project plus other projects screened in to in-combination assessment (Table 3-1), equates to a 1.47% increase in mortality rate of the kittiwake SCI of North-west Irish Sea SPA.

Impact	Phase	SCI (s)	Area	In-combination assessment
				As the in-combination impact magnitudes are predicted to result in a greater than 1% increase to annual SPA mortality rates, PVA is required to determine if additional mortality from in-combination collision impacts represents an AESI to the SPA through its consequences to the herring gull SCI breeding population. Proportional impact to the SPA population, calculated as collision mortality divided by the sum of the Lambay Island, Ireland's Eye and Howth Head Coast SPAs breeding population sizes (10,988 individuals – 2015 and 2018 counts – Burnell et al., 2023), is 0.00214. The resultant PVA output values were a CGR of 0.997 (and a CPS after the 25-year operational period of 0.936) [Full details of in-combination PVA inputs and outputs are provided in CEA Ornithology Appendix of the CEA Report]. At North-west Irish Sea SPA, where the total kittiwake breeding population of key colonies appears to be on average decreasing, consideration is required as to whether additional impacts may meaningfully worsen population decline and a conservative CGR threshold of 0.995 is considered to be prudent in the determination of AESI. In relation to a CGR of 0.997 to a decreasing population, in-combination collision impacts to the kittiwake SCI of North-west Irish Sea SPA are considered not to result in an AESI in relation to the Conservation Objectives, attributes and targets outlined in Table 3-76. Specifically, this very small reduction in population growth rate is considered not to affect the population dynamics of the SCI in such a way as to adversely affect its ability to maintain itself on a long-term basis as a viable component of its natural habitats. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-76.

3.39 Seas off Wexford SPA (IE004237)

58. This SPA is designated in relation to the following SCIs which have been screened in for consideration within the NIS: kittiwake, fulmar, cormorant, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, Manx shearwater, red-throated diver, common scoter and gannet. A summary of the in-combination assessment is provided in **Table 3-78**, with the details provided in **Table 3-79**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-78 Summary of adverse effects on site integrity (in-combination) - Seas off Wexford SPA

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Kittiwake [A188]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Collision [1]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
Fulmar [A009]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.		No AESI	
Cormorant [A017]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term population trend within the SPA is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement [1,2,3,4]		None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
		5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Collision [1]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Herring gull [A184]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Collision [1]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Lesser black-backed gull [A183]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Collision [1]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Guillemot [A199]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
	4. Disturbance across the site 5. Barriers to connectivity	4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Changes in prey availability [1,2,3]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Razorbill [A200]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Puffin [A204]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1 .			No AESI
Manx shearwater [A013]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
			Artificial lighting impacts [1,2,3,4]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
		5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Changes in prey availability [1,2,3]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.			No AESI
Red-throated diver [A001]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, and abundance 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Collision [1]		None	No change	No AESI
						Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.
Common scoter [A065]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Non-breeding population size 2. Spatial distribution 3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population 3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI
			Changes in prey availability [1,2,3]		None	No change	No AESI
			Collision [1]		None	No change	No AESI
						Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.
Gannet [A016]							
To maintain the favourable conservation condition of the SCI in the SPA	1. Breeding population size 2. Spatial distribution	1. Long-term SPA population trend is stable or increasing 2. Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population	Direct effects on habitat [1,2]	Section 4.37 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
			Disturbance and displacement (including barrier effects) [1,2,3,4,5]		None	No change	No AESI

Objective:	Attribute	Target	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
	3. Forage spatial distribution, extent, abundance and availability 4. Disturbance across the site 5. Barriers to connectivity	3. Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target 4. The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution 5. The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA	Changes in prey availability [1,2,3]		None	No change	No AESI
			Collision [1]		None	No change	No AESI
			Introduction or spread of INNS [1,2,3]	See high level assessment in Section 3.1.			No AESI

Table 3-79 In-combination assessment of adverse effects on site integrity for Seas off Wexford SPA

Impact	Phase	SCI (s)	Area	In-combination assessment
Direct effects on habitat	Construction	Kittiwake, fulmar, cormorant, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, Manx shearwater, red-throated diver, common scoter and gannet.	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-78.
	O&M		Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) is predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-78.
Disturbance and displacement	Construction	Guillemot, razorbill, puffin, Manx shearwater, red-throated diver, common scoter and gannet	Array site	For all SCIs, as the separation distance between the array site and this SPA (60.41 km) is greater than the maximum distance at which individuals within the SPA may experience disturbance effects, disturbance and displacement in the form of <i>ex situ</i> indirect habitat loss around WTGs as they are installed, and construction phase activities within the array site will not adversely affect the spatial

Impact	Phase	SCI (s)	Area	In-combination assessment
				distribution of these SCIs or their supporting habitats within the SPA. Barrier effects are also determined to be negligible for all SCIs, and will similarly not impact on the conservation objects, attributes and targets of these SCIs (Section 4.37 of Volume 5 Part 2 of the NIS). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS, Section 4.37). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1) projects, there is assessed to be no in-combination AESI as a result of disturbance and displacement from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-78.
		Guillemot, razorbill, puffin, cormorant, red-throated diver and common scoter	OECC	For all SCIs, the separation distance between the OECC and this SPA (51.93 km) is greater than the maximum distance at which <i>ex situ</i> disturbance effects may arise from construction phase activities within the OECC. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS, Section 4.37). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from construction phase activities within the OECC during construction with regard to SCI Conservation Objectives stated in Table 3-78.
	O&M	Guillemot, razorbill, puffin, Manx shearwater, red-throated diver, common scoter and gannet	Array site	For all SCIs, as the separation distance between the array site and this SPA (60.41 km) is greater than the maximum distance at which individuals within the SPA may experience disturbance effects, disturbance and displacement in the form of <i>ex situ</i> indirect habitat loss around installed WTGs, and operation and maintenance phase activities within the array site will not adversely affect the spatial distribution of these SCIs or their supporting habitats within the SPA (Section 4.37 of Volume 5 Part 2 of the NIS). Barrier effects are also determined to be negligible for all SCIs, and will similarly not impact on the conservation objects, attributes and targets of these SCIs (Section 4.37 of Volume 5 Part 2 of the NIS). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS, Section 4.37). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from operation and maintenance phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-78.
		Guillemot, razorbill, puffin, cormorant, red-throated diver and common scoter	OECC	For all SCIs, the separation distance between the OECC and this SPA (51.93 km) is greater than the maximum distance at which <i>ex situ</i> disturbance effects may arise from operation and maintenance phase activities within the OECC. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5 Part 2 of the NIS, Section 4.37). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from operation and maintenance phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-78.
Artificial lighting impacts	O&M	Manx shearwater	Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA.

Impact	Phase	SCI (s)	Area	In-combination assessment
				Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-78.
Changes in prey availability	Construction	Kittiwake, fulmar, cormorant, herring gull, lesser black-backed gull, guillemot, razorbill, puffin, Manx shearwater, red-throated diver, common scoter and gannet.	Array site	Project-only changes in prey availability impacts to SCIs of Seas off Wexford SPA arising from operation and maintenance phase activities within the array site on an <i>ex situ</i> basis are assessed to be negligible on account of the separation distance between the array site and the SPA (60.41 km) (Volume 5 Part 2 of the NIS, Section 4.37). This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of Seas off Wexford SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-78.
			OECC	Project-only changes in prey availability impacts to SCIs of Seas off Wexford SPA arising from construction phase activities on an <i>ex situ</i> basis within the OECC are assessed to be spatially and temporally extremely limited. Suspended sediment plumes created during construction operations within the OECC are predicted to enhance SSC levels over up to 7 km, well short of the minimum separation of 51.93 km between the Seas off Wexford SPA and the OECC. Any very small areas benthic habitat within the OECC which may serve as supporting nursery habitats for key prey species for seabirds within the SPA which may be altered or removed during construction phase activities within the OECC will not affect prey availability to the SCIs of Seas off Wexford SPA. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of Seas off Wexford SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-78.
	O&M		Array site	Project-only changes in prey availability impacts to SCIs of Seas off Wexford SPA arising from operation and maintenance phase activities on an <i>ex situ</i> basis within the array site are assessed to be negligible on account of the separation distance between the array site and the SPA (60.41 km) (Volume 5 Part 2 of the NIS, Section 4.37). This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of Seas off Wexford SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from operation and maintenance phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-78.
			OECC	Project-only changes in prey availability impacts to SCIs of Seas off Wexford SPA arising from operation and maintenance phase activities within the OECC on an <i>ex situ</i> basis are assessed to be negligible on account of the separation distance between the OECC and the SPA (51.93 km) (Volume 5 Part 2 of the NIS, Section 4.37). This negligible project-only contribution to in-combination changes in prey availability impacts to these SCIs of Seas off Wexford SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-78.
Collision	O&M	Kittiwake, cormorant, herring gull, lesser black-backed gull, red-throated diver, common scoter and gannet	Array site	Project-only collision impacts to Seas off Wexford SPA seabird SCIs are assessed to be negligible: apportioned collision mortality impacts to SPA breeding colonies supported by the Seas of Wexford SPA (specifically Saltee Islands SPA) are small in absolute terms and relative to baseline mortality rates for all relevant SCIs. This is considered to be similarly negligible when impacts are assessed in-combination with other projects listed in Table 3-1 above. The negligible project-only contribution to in-combination collision impacts to the seabird SCIs of Seas off Wexford SPA cannot contribute to AESI in any meaningful way, as impacts are so



Impact	Phase	SCI (s)	Area	In-combination assessment
				small as to be inconsequential. As such, there is assessed to be no in-combination AESI as a result collision impacts with regard to SCI Conservation Objectives stated in Table 3-78 .

3.40 Irish Sea Front SPA

59. This SPA is designated in relation to the following SCI which have been screened in for consideration within the NIS: Manx shearwater. A summary of the in-combination assessment is provided in **Table 3-80**, with the details provided in **Table 3-81**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-80 Summary of adverse effects on site integrity (in-combination) - Irish Sea Front SPA

Objective: Attributes and targets	Predicted effect (s)	Link to assessment	Mitigation	Residual effect	Conclusion
Manx shearwater [A013]					
Objective: To maintain or restore the favourable conservation condition of the SCI: 1. Avoid significant disturbance of the qualifying feature within the site, such that the ability of the species to use the site is maintained in the long-term 2. Maintain the habitats, processes and food resources of the qualifying feature in favourable condition 3. Ensure connectivity between the site and its supporting habitats and Manx shearwater breeding colonies is maintained	Direct effects on habitat [2]	Section 4.38 of Volume 5 Part 2, and NIS Addendum (Part 1)	None	No change	No AESI
	Disturbance and displacement (including barrier effects) [3]		None	No change	No AESI
	Artificial lighting impacts [2,3]		None	No change	No AESI
	Changes in prey availability [2]		None	No change	No AESI
	Introduction or spread of INNS [2]	See high level assessment in Section 3.1 .			No AESI

Table 3-81 In-combination assessment of adverse effects on site integrity for Irish Sea Front SPA

Impact	Phase	SCI (s)	Area	In-combination assessment
Direct effects on habitat	Construction	Manx shearwater	Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-80.

Impact	Phase	SCI (s)	Area	In-combination assessment
Disturbance and displacement	O&M		Array site	Project-only operation and maintenance phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during breeding, migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. The footprint of direct effects on <i>ex situ</i> habitat arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with mitigation measures proposed to minimise effects and avoid adverse effects on integrity where relevant. The project footprints are therefore considered similarly negligible when combined with CWP. The in-combination total footprint of direct effects on habitat of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during operation and maintenance with regard to SCI Conservation Objectives stated in Table 3-80.
	Construction		Array site	For the SCI, as the separation distance between the array site and this SPA (68.96 km) is greater than the maximum distance at which individuals within the SPA may experience disturbance effects, disturbance and displacement in the form of <i>ex situ</i> indirect habitat loss around WTGs as they are installed, and construction phase activities within the array site will not adversely affect the spatial distribution of the SCI or their supporting habitats within the SPA (Volume 5, Part 2 of the NIS). Barrier effects are also determined to be negligible for the SCI, and will similarly not impact on the conservation objects, attributes and targets of the SCI. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects listed in screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5, Part 2 of the NIS). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-80.
	O&M		Array site	For the SCI, as the separation distance between the array site and this SPA (68.96 km) is greater than the maximum distance at which individuals within the SPA may experience disturbance effects, disturbance and displacement in the form of <i>ex situ</i> indirect habitat loss around installed WTGs, and operation and maintenance phase activities within the array site will not adversely affect the spatial distribution of the SCI or their supporting habitats within the SPA (Volume 5, Part 2 of the NIS). Barrier effects are also determined to be negligible for all SCIs, and will similarly not impact on the conservation objects, attributes and targets of the SCI (Volume 5, part 2 of the NIS). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. For each and all of the projects listed in screened in for the in-combination assessment, the disturbance and displacement impacts during construction have been assessed for each of the source SPAs (as described in Volume 5, Part 2 of the NIS). Consequently, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of disturbance and displacement from operation and maintenance phase activities with regard to SCI Conservation Objectives stated in Table 3-80.
Artificial lighting impacts	O&M		Array site	Project-only operation and maintenance phase artificial lighting impacts within the array site on an <i>ex situ</i> basis represent a negligible risk of demographic consequences on the SPA population. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 – Part 2, Section 4 of the NIS Addendum (Part 1), the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Artificial lighting impacts arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible, with embedded mitigations to minimise extraneous lighting beyond those required to comply with aviation and marine vessel navigation standards and where necessary, additional mitigation measures to

Impact	Phase	SCI (s)	Area	In-combination assessment
				minimise effects to avoid adverse effects on integrity. The artificial lighting impacts of these projects to this SPA are therefore considered similarly negligible when combined with CWP. In-combination artificial lighting impacts of the project and all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of artificial lighting impacts during operation and maintenance with regard to feature Conservation Objectives stated in Table 3-80.
Changes in prey availability	Construction		Array site	Project-only changes in prey availability impacts to SCIs of Irish Sea Front SPA arising from construction phase activities within the array site on an <i>ex situ</i> basis are assessed to be negligible on account of the separation distance between the array site and the SPA (68.96 km) (Volume 5, Part 2 of the NIS). This negligible project-only contribution to in-combination changes in prey availability impacts to the SCI of the Irish Sea Front SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI as a result of changes in prey availability impacts from construction phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-80.
			OECC	Project-only changes in prey availability impacts to SCIs of Irish Sea Front SPA arising from construction phase activities within the OECC on an <i>ex situ</i> basis are assessed to be spatially and temporally extremely limited. Suspended sediment plumes created during construction operations within the OECC are predicted to enhance SSC levels over up to 7 km, well short of the minimum separation of 73.522 km between the Irish Sea Front SPA and the OECC. Any very small areas benthic habitat within the OECC which may serve as supporting nursery habitats for key prey species for seabirds within the SPA which may be altered or removed during construction phase activities within the OECC will not affect prey availability to the SCIs of Irish Sea Front SPA. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. This negligible project-only contribution to in-combination changes in prey availability impacts to the SCI of the Irish Sea Front SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from construction phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-80.
	O&M		Array site	Project-only changes in prey availability impacts to SCIs of Irish Sea Front SPA arising from operation and maintenance phase activities within the array site on an <i>ex situ</i> basis are assessed to be negligible on account of the separation distance between the array site and the SPA (68.96 km) (Volume 5, Part 2 of the NIS). This negligible project-only contribution to in-combination changes in prey availability impacts to this SCI of Irish Sea Front SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from operation and maintenance phase activities within the array site with regard to SCI Conservation Objectives stated in Table 3-80.
			OECC	Project-only changes in prey availability impacts to SCIs of Irish Sea Front SPA arising from operation and maintenance phase activities on an <i>ex situ</i> basis within the OECC are assessed to be negligible on account of the separation distance between the OECC and the SPA (73.522 km) (Volume 5, Part 2 of the NIS). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. This negligible project-only contribution to in-combination changes in prey availability impacts to the SCI of the Irish Sea Front SPA cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, there is assessed to be no in-combination AESI with the projects listed in as a result of changes in prey availability impacts from operation and maintenance phase activities within the OECC with regard to SCI Conservation Objectives stated in Table 3-80.

Non-breeding wader or wildfowl SPAs

3.41 Distant SPAs designated in relation to migratory wildfowl and waders

60. Thirty-three distant non-overlapping SPAs (**NIS Volume 5, Part 2, Section 4.39** are designated in relation to SCIs which have been screened in for consideration within the NIS: bar-tailed godwit, Bewick's swan, black-tailed godwit, coot, curlew, dunlin, gadwall, golden plover, Greenland white-fronted goose, grey heron, grey plover, greylag goose, knot, lapwing, light-bellied brent goose, little grebe, mallard, oystercatcher, pintail, purple sandpiper, redshank, ringed plover, sanderling, shelduck, shoveler, teal, tufted duck, turnstone, whooper swan, wigeon and wintering wader and / or wildfowl assemblage. The Conservation Objectives of these SPAs are provided in **Table 3-82**. The in-combination assessment of AESI is provided in **Table 3-83**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-82 Conservation objectives, attributes and targets of wader and waterfowl SCIs of non-overlapping SPAs

Conservation objectives reference	SPA(s)	SCI(s)	Conservation objective	Attribute	Target
NA	Lambay Island SPA	Greylag goose	To maintain/restore the favourable conservation condition of the SCI in the SPA	Winter population trend	Long term winter population trend is stable or increasing
	Skerries Islands SPA	Light-bellied brent goose Purple sandpiper Turnstone		Winter spatial distribution	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target
	Cahore Marshes SPA	Wigeon Golden plover Lapwing Greenland White-fronted goose		Disturbance at wintering site	Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution
	Lady's Island Lake SPA	Gadwall		Barriers to connectivity and site use	Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA
	Tacumshin Lake SPA	Little grebe Bewick’s swan Whooper Swan Wigeon Gadwall Teal Pintail Shoveler Tufted duck Coot Golden plover Grey plover Lapwing Black-tailed godwit		Forage spatial distribution, extent and abundance	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target
	Poulaphouca Reservoir SPA	Greylag goose		Roost spatial distribution and extent	Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
				Supporting habitat: area and quality [Bewick’s swan, whooper swan, greylag goose, Greenland-white-fronted goose, light-bellied brent goose, wigeon, teal,	Sufficient area of utilisable habitat available in ecologically important sites outside the SPA

Conservation objectives reference	SPA(s)	SCI(s)	Conservation objective	Attribute	Target
				golden plover, lapwing, black-tailed godwit only]	
SS1 – SS19	Dundalk Bay SPA Boyne Estuary SPA River Nanny Estuary and Shore SPA Rockabill SPA Rogerstown Estuary SPA Baldoyle Bay SPA Malahide Estuary SPA The Raven SPA Wexford Harbour and Slobs SPA Ballyteige Burrow SPA Bannow Bay SPA Tramore Back Strand SPA Dungarvan Harbour SPA Blackwater Estuary SPA Ballymacoda Bay SPA Ballycotton Bay SPA Cork Harbour SPA Courtmacsherry Bay SPA Clonakilty Bay SPA	All	To maintain the favourable conservation condition of the SCI in the SPA	Population trend	Long-term population trend stable or increasing
				Distribution	No significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation
NI	Strangford Lough SPA Outer Ards SPA Carlingford Lough SPA Killough Bay SPA Larne Lough SPA Lough Neagh and Lough Beg SPA Upper Lough Erne SPA Lough Foyle SPA	All	To maintain the favourable conservation condition of the SCI in the SPA	Population of the qualifying species	Maintain or enhance
				Supporting habitats	Maintain or enhance
				Site integrity	Maintain
				Disturbance	Ensure no significant disturbance to qualifying feature
				Distribution of the species within site	Maintain in the long-term

Table 3-83 In-combination assessment of adverse effects on site integrity for non-overlapping SPAs with migratory wildfowl and / or wader SCIs

Impact	Phase	SCIs	Area	In-combination assessment
Direct effects on habitat	Construction	All SCIs of all SPAs in Section 4.42 of Volume 5 Part 2 of the NIS	OECC intertidal landfall	The <i>ex situ</i> effects on habitat from construction phase activities within this area will result in very limited impacts on these SPA SCIs. As the spatial extent of impacts will be small at any given moment in time during construction phase activities in comparison to the available habitat, and given the rate of recoverability of available habitat following backfilling and removal of supporting infrastructure and/or vehicles, This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets (Table 3-2). Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Direct effects on habitat impact footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when

Impact	Phase	SCIs	Area	In-combination assessment
				considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-82 .
	O&M		OECC intertidal landfall	The <i>ex situ</i> effects on habitat from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. As the spatial extent of impacts will be small at any given moment in time during operation and maintenance phase activities in comparison to the available habitat, and given the rate of recoverability of available habitat following backfilling and removal of supporting infrastructure and/or vehicles, This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets (Table 3-2). Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Direct effects on habitat impact footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-82 .
Disturbance and displacement	Construction		Array site	<i>ex situ</i> disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i> , 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, through reference to the Conservation Objectives, attributes and targets (Table 3-1). Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i> , 2009), and on the basis that where detailed assessments for projects are available for the specific SPA, other project have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects o within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-82 .
			OECC intertidal landfall	The <i>ex situ</i> effects from disturbance and displacement from construction phase activities within this area will result in very limited impacts on these SPA SCIs. Given the limited potential connectivity between with construction phase activities within South Dublin Bay, it is considered that the numbers of individuals experiencing potential disturbance from construction phase activities within South Dublin Bay which also utilise these SPAs are low, or zero, for all wildfowl and wader species which are SCIs of these SPAs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-82 .
	O&M		Array site	<i>ex situ</i> disturbance and displacement effects within the array site are limited to barrier effects, whereby migratory species may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated

Impact	Phase	SCIs	Area	In-combination assessment
				with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, through reference to the Conservation Objectives, attributes and targets (Table 3-1). Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects o within the array site during construction with regard to SCI Conservation Objectives stated in Table 3-82.
			OECC intertidal landfall	The <i>ex situ</i> effects from disturbance and displacement from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. Given the limited potential connectivity between with construction phase activities within South Dublin Bay, it is considered that the numbers of individuals experiencing potential disturbance from construction phase activities within South Dublin Bay which also utilise these SPAs are low, or zero, for all wildfowl and wader species which are SCIs of these SPAs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-82.
Changes in prey availability	Construction		OECC intertidal landfall	The <i>ex situ</i> effects from changes in prey availability from construction phase activities within this area will result in very limited impacts on these SPA SCIs. Given the high rate of recoverability of the impacted habitat (and associated organisms) and the temporary nature of trenching activities, This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the intertidal landfall area during construction with regard to SCI Conservation Objectives stated in Table 3-82.
	O&M		OECC intertidal landfall	The <i>ex situ</i> effects from changes in prey availability from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. Given the high rate of recoverability of the impacted habitat (and associated organisms) and the temporary nature of trenching activities, this allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents.



Impact	Phase	SCIs	Area	In-combination assessment
				Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives stated in Table 3-82 .
Collision	O&M		Array site	Project-only collision impacts to these SCIs are assessed to be negligible on the basis that estimated collision mortalities were very low. The risk of collision to migratory wildfowl and wader SCIs is considered to be negligible when project-only impacts are considered, primarily due to the likelihood that such species will tend to fly around, rather than through, the operational array site (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. As assessed in Volume 5 Part 2 of the NIS, the proposed CWP Project will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Collision mortality estimates from projects listed in are not available or provided. However, it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives stated in Table 3-82.

Non-breeding seabird SPAs

3.42 Distant SPAs designated in relation to non-breeding seabirds

61. Thirteen distant non-overlapping SPAs **Volume 5 Part 2** of the **NIS, Section 4.41** are designated in relation to SCIs which have been screened in for consideration within the NIS: lesser black-backed gull, Mediterranean gull, common scoter, black-headed gull, red-breasted merganser, herring gull, common gull, great crested grebe, goldeneye, red-throated diver, cormorant, scaup and little gull. The Conservation Objectives of these SPAs are provided in **Volume 5 Part 2** of the **NIS, Section 4.41**. The in-combination assessment of AESI is provided in **Table 3-84**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-84 In-combination assessment of adverse effects on site integrity for non-overlapping SPAs with non-breeding seabird SCIs

Impact	Phase	SCI (s)	Area	In-combination assessment
Direct effects on habitat	Construction	All SCIs of all SPAs in Volume 5 Part 2 of the NIS, Section 4.41	Array site	Project-only construction phase direct effects on <i>ex situ</i> habitat impacts within the array site represent a negligible proportion of seabird SCI habitat use areas during migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Direct effects on habitat impact footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during construction with regard to SCI Conservation Objectives.
			OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the intertidal landfall area on an <i>ex situ</i> basis represent a negligible proportion of intertidal habitat areas available for use during migration and / or wintering periods. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to SCIs under normal operation. Occasional maintenance actions may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however the physical area of intertidal habitat affected by activities is considered to be negligible relative to the habitat areas available to seabird SCIs. Furthermore, the rate of recoverability of intertidal habitats following any maintenance excavations is considered to be high, lasting several tidal cycles. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Direct effects on habitat impact footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives.
	O&M		Array site	Project-only construction phase direct effects on habitat impacts within the array site on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas operation and maintenance migration and / or wintering periods. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Direct effects on habitat impact footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when

Impact	Phase	SCI (s)	Area	In-combination assessment
				considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the array site during the operation and maintenance phase with regard to SCI Conservation Objectives.
			OECC	Project-only operation and maintenance phase direct effects on habitat impacts within the OECC on an <i>ex situ</i> basis represent a negligible proportion of seabird SCI habitat use areas during migration and / or wintering periods. Transmission infrastructure within the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to seabird SCIs under normal operation. Occasional maintenance activities may require some vessel activity within the OECC during this phase of the project, however the physical area of sea surface occupied by vessels during such activities is considered to be negligible relative to the habitat areas available to seabird SCIs. The footprints of direct effects on <i>ex situ</i> habitat arising within the cable corridors of other projects screened in to in-combination assessment (generally operational or decommissioning impacts of other projects) are considered similarly negligible in this regard. The in-combination total direct effects on habitat footprints of project-only with all other projects screened in to in-combination assessment is therefore considered to be negligible in relation to seabird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the OECC with regard to SCI Conservation Objectives.
			OECC intertidal landfall	Project-only operation and maintenance phase direct effects on habitat impacts within the intertidal landfall area on an <i>ex situ</i> basis represent a negligible proportion of intertidal habitat areas available for use during migration and / or wintering periods. Transmission infrastructure within the intertidal segment of the OECC is buried and passive during the operation and maintenance phase of the project, and as such presents no physical footprint of habitat loss to intertidal waterbird SCIs under normal operation. Occasional maintenance actions may require some activities which disrupt the intertidal habitat along the buried infrastructure during this phase of the project, however the physical area of intertidal habitat affected by activities is considered to be negligible relative to the habitat areas available to seabird SCIs. Furthermore, the rate of recoverability of intertidal habitats following any maintenance excavations is considered to be high, lasting several tidal cycles. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Direct effects on habitat impact footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of direct effects on habitat within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives.
Disturbance and displacement	Construction	Common scoter, red-throated diver and little gull	Array site	The <i>ex situ</i> effects from disturbance and displacement from construction phase activities within this area will result in very limited impacts on these SPA SCIs. In relation to migratory movements or between site movements during the non-breeding period, one-off energetic costs associated with relatively small deviations (such as travelling around the array site, rather than straight through) during these typically large and infrequent movements are considered to be inconsequential in relation to energy reserves recruited (Masden <i>et al.</i>, 2009). For all these non-breeding seabird SCIs, potential barrier effects regarding erected array site infrastructure are therefore considered negligible. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the array area during construction with regard to SCI Conservation Objectives.

Impact	Phase	SCI (s)	Area	In-combination assessment
		Common scoter, red-throated diver, little gull, red-breasted merganser, great crested grebe, goldeneye, cormorant and scaup	OECC	The <i>ex situ</i> effects from disturbance and displacement from construction phase activities within this area will result in very limited impacts on these SPA SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the OECC during construction with regard to SCI Conservation Objectives.
		Lesser black-backed gull, herring gull, black-headed gull, common gull Mediterranean gull, little gull, common scoter, red-breasted merganser, great crested grebe, red-throated diver and cormorant	OECC intertidal landfall	The <i>ex situ</i> effects from disturbance and displacement from construction phase activities within this area will result in very limited impacts on these SPA SCIs. Given the limited potential connectivity between with construction phase activities within South Dublin Bay, it is considered that the numbers of individuals experiencing potential disturbance from construction phase activities within South Dublin Bay which also utilise these SPAs are low, or zero, for all wildfowl and wader species which are SCIs of these SPAs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the intertidal landfall area during construction with regard to SCI Conservation Objectives.
	O&M	Common scoter, red-throated diver and little gull	Array site	The <i>ex situ</i> effects from disturbance and displacement from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. In relation to migratory movements or between site movements during the non-breeding period, one-off energetic costs associated with relatively small deviations (such as travelling around the array site, rather than straight through) during these typically large and infrequent movements are considered to be inconsequential in relation to energy reserves recruited (Masden <i>et al.</i>, 2009). For all these non-breeding seabird SCIs, potential barrier effects regarding erected array site infrastructure are therefore considered negligible. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the array site during the operation and maintenance phase with regard to SCI Conservation Objectives.
		Common scoter, red-throated diver, little gull, red-breasted merganser, great crested grebe, goldeneye, cormorant and scaup	OECC	The <i>ex situ</i> effects from disturbance and displacement from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when

Impact	Phase	SCI (s)	Area	In-combination assessment
Changes in prey availability	Construction			considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the OECC during the operation and maintenance phase with regard to SCI Conservation Objectives.
		Lesser black-backed gull, herring gull, black-headed gull, common gull Mediterranean gull, little gull, common scoter, red-breasted merganser, great crested grebe, red-throated diver and cormorant	OECC intertidal landfall	The <i>ex situ</i> effects from disturbance and displacement from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. Given the limited potential connectivity between with construction phase activities within South Dublin Bay, it is considered that the numbers of individuals experiencing potential disturbance from construction phase activities within South Dublin Bay which also utilise these SPAs are low, or zero, for all wildfowl and wader species which are SCIs of these SPAs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Disturbance and displacement footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives.
		All SCIs of all SPAs in Section 4.41 of Volume 5 Part 2 of the NIS.	Array site	The <i>ex situ</i> effects from changes in prey availability from construction phase activities within this area will result in very limited impacts on these SPA SCIs. Underwater noise may impact on prey species of the SCIs but this is predicted to not have any impacts on the SCI populations or any of the Conservation Objectives, attributes and targets. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site during construction with regard to SCI Conservation Objectives.
			OECC	Project-only changes in prey availability impacts to non-breeding seabird SCIs of non-overlapping non-breeding seabird SPAs arising from construction phase activities within the OECC on an <i>ex situ</i> basis are assessed to be spatially and temporally extremely limited. Suspended sediment plumes created during construction operations within the OECC are predicted to impact only very small areas of benthic habitat within the OECC which may serve as supporting nursery habitats for key prey species for these SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the OECC during the construction phase with regard to SCI Conservation Objectives.
			OECC intertidal landfall	The <i>ex situ</i> effects from changes in prey availability from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. Given the high rate of recoverability of the impacted habitat (and associated organisms) and the temporary nature of trenching activities, this allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the

Impact	Phase	SCI (s)	Area	In-combination assessment
				project in isolation, in relation to the Conservation Objectives, attributes and. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-2) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives.
	O&M		Array site OECC	The <i>ex situ</i> effects from changes in prey availability from operation and maintenance phase activities within the array site and OECC area for SCIs from these distant SPAs represent a negligible impact given the proportion of this area compared to the sea area used by those SCIs. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, in relation to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (Table 3-1) are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the array site and OECC during the operation and maintenance phase with regard to SCI Conservation Objectives.
			OECC intertidal landfall	The <i>ex situ</i> effects from changes in prey availability from operation and maintenance phase activities within this area will result in very limited impacts on these SPA SCIs. Given the high rate of recoverability of the impacted habitat (and associated organisms) and the temporary nature of trenching activities. This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Changes in prey availability footprints of intertidal works of other projects screened in to in-combination assessment (are considered similarly negligible in this regard. The in-combination total project-only direct effects on habitat footprints, when considered alongside all other projects screened in to the in-combination assessment, is therefore considered to be negligible in relation to intertidal waterbird habitat use extents. Consequently, there is assessed to be no in-combination AESI as a result of changes in prey availability within the intertidal landfall area during the operation and maintenance phase with regard to SCI Conservation Objectives.

Terrestrial migrant SPAs

3.43 SPAs designated in relation to non-seabird and non-wildfowl or wader migrants

62. Twenty-three distant non-overlapping SPAs (**Volume 5, Part 2** of the **NIS, Section 4.42** are designated in relation to SCIs which have been screened in for consideration within the NIS: corncrake, hen harrier and merlin. The Conservation Objectives of these SPAs are provided in **Volume 5, Part 2** of the **NIS, Section 4.42**. The in-combination assessment of AESI is provided in **Table 3-85**. All effects assessed, including direct effects, are *ex situ* and considered in the context of the wider natural range and supporting habitats.

Table 3-85 In-combination assessment of adverse effects on site integrity for non-overlapping SPAs terrestrial migrant SCIs

Impact	Phase	SCI (s)	Area	In-combination assessment
Disturbance and displacement (barrier effects only)	Construction	All SCIs of all SPAs in Section 4.42 of Volume 5, Part 2 of the NIS .	Array site	Disturbance and displacement effects within the array site are limited to barrier effects, whereby these SCIs may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, through reference to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects o within the array site during construction with regard to SCI Conservation Objectives.
	O&M			Disturbance and displacement effects within the array site are limited to barrier effects, whereby these SCIs may deviate their migratory routes due to the present of array site infrastructure. Additional energetic expenditure by migratory species associated with relatively small deviations (such as travelling around the array site, rather than straight through) during migration are considered to have inconsequential effects on the additional reserves recruited by these species for typically large migration movements (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, through reference to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. Barrier effects arising from other projects screened in to in-combination assessment (Table 3-1) are predicted within the respective EIAs and Natura assessments to be negligible. Barrier effects are therefore considered similarly negligible when combined with CWP Project. This is on the basis that additional energetic expenditure arising from barrier effects from other projects will also be inconsequential for these large migration movements (Masden <i>et al.</i>, 2009), and on the basis that where detailed assessments for projects are available for the specific SPA, other projects have similarly concluded no adverse effect on the integrity of the European site. The in-combination total footprint of barrier effects of project only with all other projects screened in to in-combination assessment is therefore considered to be negligible. Consequently, there is assessed to be no in-combination AESI as a result of disturbance and displacement effects o within the array site during the operation and maintenance phase with regard to SCI Conservation Objectives.



Impact	Phase	SCI (s)	Area	In-combination assessment
Collision	O&M			Project-only collision impacts to these SCIs are assessed to be negligible on the basis that estimated collision mortalities were very low. The risk of collision to these SCIs is considered to be negligible when project-only impacts are considered, primarily due to the likelihood that such species will tend to fly around, rather than through, the operational array site (Masden <i>et al.</i>, 2009). This allows a conclusion to be drawn of no adverse effect on the integrity of this SPA from the project in isolation, through reference to the Conservation Objectives, attributes and targets. Therefore, the potential for in combination effects to arise are limited to those effects the proposed CWP Project will have on the receiving environment that are measurable in some way, but themselves will not affect the Conservation Objectives of this SPA. In the considering the collision mortality estimates from projects listed in Table 3-1 these are not available or provided; however it is considered that the negligible project-only contribution to in-combination collision impacts to these SCIs cannot contribute to AESI in any meaningful way, as impacts are so small as to be inconsequential. As such, in consideration of other projects screened in to in-combination assessment (Table 3-1), there is assessed to be no in-combination AESI as a result of collision impacts with regard to SCI Conservation Objectives.

4 NIS CONCLUSION

63. The purpose of this document, which will accompany the application for development of the CWP Project, was to inform the AA process in determining whether the CWP Project would adversely affect the integrity of any European sites.
64. The AA Screening Report (**Volume 3**) concluded that likely significant effects (LSE) could not be ruled out for the following European sites, as a result of the CWP Project alone (without mitigation):
- Aberdaron Coast & Bardsey Island SPA [UK9013121];
 - Afon Teifi / River Teifi SAC [UK0012670];
 - Afon Tywi / River Tywi SAC [UK0013010];
 - Afonydd Cleddau / Cleddau Rivers SAC [UK0030074];
 - Ailsa Craig SPA [UK9003091];
 - Baie de Saint-Brieuc - Est SAC [FR5300066];
 - Baie de Seine occidentale SAC [FR2502020];
 - Baie de Seine orientale SAC [FR2502021];
 - Baie du Mont Saint-Michel SAC [FR2500077];
 - Baldoyle Bay SPA [IE004016];
 - Bassin de l'Airou SAC [FR2500113];
 - Blackwater River (Cork / Waterford) SAC [IE0002170];
 - Blasket Islands SAC [IE002172];
 - Blasket Islands SPA [IE004008];
 - Bristol Channel Approaches SAC [UK0030396];
 - Cardigan Bay SAC [UK0012712];
 - Cardigan Bay / Bae Ceredigion SAC [UK0012712];
 - Carmarthen Bay and Estuaries / Bae Caerfyrddin ac Aberoedd SAC [UK0020020];
 - Castlemaine Harbour SAC [IE0000343];
 - Copeland Islands SPA [UK9020291];
 - Cte de Granit rose-Sept-Iles SAC [FR5300009];
 - Cummeen Strand / Drumcliff Bay (Sligo Bay) SAC [IE0000627];
 - Dalkey Islands SPA [IE004172];
 - Dee Estuary / Aber Dyfrdwy SAC [UK0030131];
 - Deenish Island and Scariff Island SPA [IE004175];
 - Duvillaun Islands SAC [IE000495];
 - Estuaire de la Loire SAC [FR5200621];
 - Estuaire de la Loire Nord SAC [FR5202011];
 - Estuaire de la Loire Sud - Baie de Bourgneuf SAC [FR5202012];
 - Estuaire de la Rance SAC [FR5300061];
 - Estuaire de la Vilaine SAC [FR5300034];
 - Golfe du Morbihan, côte ouest de Rhuys SAC [FR5300029];
 - Grassholm SPA [UK9014041];
 - Havre de Saint-Germain-sur-Ay et Landes de Lessay SAC [FR2500081];
 - Howth Head Coast SPA [IE004113];
 - Ireland's Eye SPA [IE004117];
 - Killala Bay / Moy Estuary SAC [IE0000458];
 - Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC [IE0000365];
 - Lac de Grand-Lieu SAC [FR5200625];
 - Lambay Island SAC [IE000204];
 - Lambay Island SPA [IE004069];
 - Littoral Ouest du Cotentin de Brhal Pirou SAC [FR2500080];
 - Llyn Peninsula and the Sarnau SAC [UK0013117];
 - Lough Corrib SAC [IE0000297];

- Lough Gill SAC [IE0001976];
- Lower River Shannon SAC [IE0002165];
- Lower River Suir SAC [IE0002137];
- Malahide Estuary SPA [IE004025];
- Marais de Vilaine SAC [FR5300002];
- Marais du Cotentin et du Bessin - Baie des Veys SAC [FR2500088];
- Mingulay and Berneray SPA [UK9001341];
- Moray Firth SAC [UK0019808];
- Nord Bretagne DH ZSC SAC [FR2502022];
- North Anglesey Marine SAC [UK0030398];
- North Bull Island SPA [IE004006];
- North Channel SAC [UK0030399];
- North Dublin Bay SAC [IE000206];
- Ouessant-Molène ZSC SAC [FR5300018];
- Pembrokeshire Marine / Sir Benfro Forol SAC [UK0013116];
- Pertuis Charentais SAC [FR5400469];
- Plymouth Sound and Estuaries SAC [UK0013111];
- Puffin Island SPA [IE004003];
- Rade de Brest, estuaire de l'Aulne SAC [FR5300046];
- Ria d'Etel SAC [FR5300028];
- River Avon SAC [UK0013016];
- River Axe SAC [UK0030248];
- River Barrow and River Nore SAC [IE0002162];
- River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid SAC [UK0030252];
- River Derwent and Bassenthwaite Lake SAC [UK0030032];
- River Eden SAC [UK0012643];
- River Moy SAC [IE0002298];
- River Usk / Afon Wysg SAC [UK0013007];
- River Wye / Afon Gwy SAC [UK0012642];
- Rivire Elle SAC [FR5300006];
- Rivire Elorn SAC [FR5300024];
- Rivire Lata, Pointe du Talud, tangs du Loc'h et de Lannec SAC [FR5300059];
- Rivire le Douron SAC [FR5300004];
- Rivire Leguer, forts de Beffou, Coat an Noz et Coat an Hay SAC [FR5300008];
- Rivire Scorff, Fort de Pont Calleck, Rivire Sarre SAC [FR5300026];
- Roaringwater Bay and Islands SAC [IE000101];
- Rockabill SPA [IE004014];
- Rockabill to Dalkey Island SAC [IE003000];
- Rum SPA [UK9001341];
- Saltee Islands SAC [IE000707];
- Saltee Islands SPA [IE004002];
- Severn Estuary / Môr Hafren SAC [UK0013030];
- Skelligs SPA [IE004007];
- Skerries Islands SPA [IE004122];
- Skomer, Skokholm and Seas off Pembrokeshire SPA [UK9014051];
- Slaney River Valley SAC [IE0000781];
- Slyne Head Islands SAC [IE000328];
- Slyne Head Peninsula SAC [IE002074];
- Solway Firth SAC [UK0013025];
- South Dublin Bay SAC [IE000210];
- South Dublin Bay and River Tolka Estuary SPA [IE004024];
- The Murrough SPA [IE0004186];
- Tregor Golo SAC [FR5300010];
- Valle de la Se SAC [FR2500110];

- Valle de l'Arz SAC [FR5300058];
- Valle de l'Aulne SAC [FR5300041];
- West Connacht Coast SAC [IE002998];
- West Wales Marine SAC [UK0030397];
- Wicklow Head SPA [IE004127];
- Wicklow Mountains SPA [IE004040]; and
- Wicklow Reef SAC [IE002274].

65. For all remaining European sites, no LSE from the CWP Project were concluded, whether alone or in combination with other plans and projects. Therefore, assessment of the above sites was progressed to Stage 2, NIS.
66. The Stage 2, NIS, concluded that following the application of suitable mitigation where required, the CWP Project, either alone or in combination with other plans or projects, would not have an adverse effect on the integrity of any European site.

5 REFERENCES

67. APEM Ltd. (2022). Volume 2, Chapter 4: Offshore Ornithology. RWE.
68. Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Environment, Heritage and Local Government (2009 - Revised February 2010).
69. Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/ / 43/ / EEC.
70. Burnell, D., Perkins, A.J., Newton, S.F., Bolton, M., Tierney, T.D. & Dunn, T.E. (2023). Seabirds count: a census of breeding seabirds in Britain and Ireland (2015–2021). Lynx Nature Books, Barcelona.
71. CIEEM (2018). The Guidelines for Ecological Impact Assessment in the UK and Ireland.
72. Circular NPW 1/ / 10 & PSSP 2/ / 10 (March 2010).
73. Cook, A.S.C.P. and Robinson, R.A. (2016). Testing sensitivity of metrics of seabird population response to offshore wind farm effects, JNCC Report No. 553.
74. Coughlan, Kyle & Roberts, Emma & Streker, Rochelle & Newton, Steve. (2024). Rockabill Tern Report 2024.
75. Coulson, J.C. & Neve De Mevergnies, G. (1992). Where do young kittiwakes *Rissa tridactyla* breed, philopatry or dispersal? Ardea 80, 187–197.
76. Coulson, J.C. (2017). Productivity of the Black-legged Kittiwake *Rissa tridactyla* required to maintain numbers. Bird Study 64, 84–89. doi: 10.1080/00063657.2016.1274286
77. Cutts N, Hemingway K and Spencer J (2013). The Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects. Produced by the Institute of Estuarine and Coastal Studies (IECS). Version 3.2
78. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland. EU Guidance document on Article 6(4) of the 'Habitats Directive' 92/ / 43/ / EEC (2007). European Commission. (Nov. 2001 – published 2002).
79. Kish Offshore Wind Ltd. and Bray Offshore Wind Ltd. (2025) Dublin Array Offshore Wind Farm: Habitats Directive Assessment. Volume 4: Applicant's Natura Impact Statement. Dublin: Kish Offshore Wind Ltd. and Bray Offshore Wind Ltd. Available at: <https://dublinarray-marineplanning.ie/wp-content/uploads/2025/02/Volume-4-Applicants-Natura-Impact-Statement.pdf> [Accessed: 10 March 2026].
80. Fliessbach, K.L., Borkenhagen, K., Guse, N., Markones, N., Schwemmer, P. and Garthe, S. (2019). A ship traffic disturbance vulnerability index for Northwest European Seabirds as a tool for marine spatial planning. Frontiers in Marine Science, 6, 1–15.
81. Green, A.J., Soons, M., Brochet, A.L. and Kleyheeg, E. (2016). Dispersal of plants by waterbirds. In: Sekercioglu CH, Wenny DG, Whelan, CJ (eds) Why birds matter: avian ecological functions and ecosystem services. University of Chicago Press, Chicago (in press).
82. Horswill, C. and Robinson, R.A. (2015). Review of Seabird Demographic Rates and Density Dependence. JNCC Report No. 552.
83. Horswill, C., O'Brien, S.H. and Robinson, R.A. (2017). Density dependence and marine bird populations: are wind farm assessments precautionary? Journal of Applied Ecology, 54(5), 1406–1414.
84. Jitlal, M., Burthe, S. Freeman, S. and Daunt, F. (2017). Testing and validating metrics of change produced by Population Viability Analysis (PVA) (Ref CR/2014/16).

85. Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/ / 43/ / EEC (2000).
86. Masden, E. A., Haydon, D. T., Fox, A. D., Furness, R. W., Bullman, R., and Desholm, M. (2009). Barriers to movement: impacts of wind farms on migrating birds. – ICES Journal of Marine Science, 66, 746–753.
87. Newton, I., McGrady, M.J., & Oli, M.K. (2016). A review of survival estimates for raptors and owls. Ibis 1.
88. Ponchon, A., Iliszko, L., Grémillet, D., Tveraa, T. & Boulinier, T (2017). Intense prospecting movements of failed breeders nesting in an unsuccessful breeding subcolony. Animal Behaviour 124, 183–191. doi: 0.1016/j.anbehav.2016.12.017
89. Skov, H., Tjørnløv, R.S., Armitage, M., Barker, M., Jørgensen, J.B., Mortensen, L.O. & Uhrenholdt, T. (2025) High-resolution multi-sensor technology reveals low collision risk to seabirds in offshore wind farms. Journal of Applied Ecology n/a: e70239
90. Ruffino L., Thompson, D. and O'Brien, S. (2020). Black-legged kittiwake population dynamics and wider drivers of population change in the context of offshore wind development, JNCC Report No. 651, JNCC, Peterborough, ISSN 0963-8091.
91. UK SNCBs. (2022). Joint SNCB Interim Displacement Advice Note.
92. Woodward, I., Thaxter, C.B., Owen, E. and Cook, A.S.C.P. (2019). Desk-based revision of seabird foraging ranges used for HRA screening, Report of work carried out by the British Trust for Ornithology on behalf of NIRAS and The Crown Estate, ISBN 978-1-912642-12-0.



NIS Addendum

Appendix A – SPAs Site Specific Conservation Objectives





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INTRODUCTION

1. Codling Wind Park Limited (hereafter ‘the Applicant’) is proposing to develop the Codling Wind Park (CWP) Project, which is located in the Irish sea approximately 13 - 22 km off the east coast of Ireland, at County Wicklow.
2. This appendix supports the **NIS Addendum**. Information within the NIS Addendum is presented only in regard to topics specifically raised in the FIR. It is acknowledged that, for a number of Irish SPAs, Conservation Objectives have changed from being generic at the time of the original application submission, to site and species specific at the time of submission of FIR Response related documents.
3. This appendix provides an outline of the updates made to site specific Conservation Objectives of the Irish SPAs (listed in **Table 1**) included in the NIS since the submission of the NIS for the CWP Project in September 2024 [Note: Several SPAs for which Conservation Objectives were updated in the months immediately prior to the submission of the Project's application, were assessed against their previous Conservation Objectives in the original application due to timeline constraints associated with the final stages of the application's production. Revised Conservation Objectives for these SPAs are also included in **Table 1**].
4. Following review, it is confirmed that the Conservation Objectives for non-Irish SPAs have not been updated since the NIS submission and are not included in **Table 1**.
5. The Conservation Objectives for Qualifying Interests (hereafter referred to as Special Conservation Interests – SCIs) which were screened out for inclusion in the NIS submitted in September 2024, which are also screened out of inclusion in the **NIS Addendum**, are also not included in **Table 1**.
6. Among those SPAs where Conservation Objectives have changed in the period between drafting of the original application and submission of the FIR Response, some did not have impact pathways that required an updated assessment for the FIR; i.e. neither the characterisation validation, nor requests for alternative assessment approaches and / or parameters, trigger an update to the assessment. The conclusions of these original impact assessments undertaken in relation to previous Conservation Objectives are valid with regard to the now updated (site- and species-specific) Conservation Objectives. The two part rationale for this is as follows:
 1. The broad themes of previous generic Conservation Objective attributes, entirely overlap with the more precisely defined attributes and targets of updated site and species-specific Conservation Objectives.

For example, the previous (generic) Conservation Objective [To maintain or restore the favourable conservation condition of the SCI(s)] attributes and targets of breeding seabird SPAs were:

1. *Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats.*
2. *The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future.*
3. *There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.*

The kittiwake feature of Wicklow Head SPA provides an example of an SCI at an SPA where Conservation Objectives have been revised. The updated Conservation Objective [To restore the favourable conservation condition of the SCI] attributes are:

1. *Breeding population size – Long term trend is stable or increasing*
 2. *Productivity rate – Sufficient to maintain a stable or increasing population*
- [These would previously have been considered in relation to generic attribute 1]**

3. *Distribution – Sufficient availability of suitable nesting sites throughout SPA to maintain a stable or increasing population*
4. *Forage spatial distribution, extent, abundance and availability – sufficient to support the population target.*
5. *Disturbance at breeding site – levels do not significantly impact birds at breeding site.*
6. *Disturbance at areas ecologically connected to colony - levels do not significantly impact breeding population.*
7. *Barriers to connectivity – no significant impact upon access to SPA or ecologically important sites outside SPA.*

[These would previously have been considered in relation to generic attributes 2 and 3.]

As such, assessments undertaken against previous generic attributes provide the information necessary for the Irish Ministers to undertake an Appropriate Assessment for these SPAs even though generic Conservation Objectives have been changed to site-specific Conservation Objectives.

2. When the original application was submitted, in relation to breeding seabird SPAs, the Applicant, being aware that NPWS was in the process of reviewing SPA Conservation Objectives, was able to predict specific Conservation Objectives prior to their publication (termed 'proxy Conservation Objectives'). These proxies were based on the existing Conservation Objectives and attributes of breeding seabird SPAs for which published Conservation Objectives were already site and species specific at the time of the drafting of the original application. As a parallel assessment against these proxy Conservation Objectives was included within the original application (NIS Volume 7: Appendix 7 – Ornithology Proxy Conservation Objectives), and the predicted proxy conservations align exactly, or very closely, with those ultimately published (see example, below), assessments undertaken with additional examination of proxy Conservation Objectives provide the information necessary for the Irish Ministers to undertake an Appropriate Assessment for these SPAs even though generic Conservation Objectives have been changed to specific Conservation Objectives.

The kittiwake feature of Wicklow Head SPA provides an example of an SCI at an SPA where Conservation Objectives have been revised. The predicted proxy site and species-specific Conservation Objective [To restore the favourable conservation condition of the SCI attributes] align directly with six of the seven revised specific attributes. These were:

1. *Breeding population abundance – No significant decline* **[This aligns with specific attribute 1]**
2. *Productivity rate – No significant decline* **[This aligns with specific attribute 2]**
3. *Distribution: breeding colonies – No significant decline* **[This aligns with specific attribute 3]**
4. *Prey biomass available – No significant decline* **[This aligns with specific attribute 4]**
5. *Barriers to connectivity – No significant increase* **[This aligns with specific attribute 7]**
6. *Disturbance at the breeding site – No significant increase* **[This aligns with specific attribute 5]**

Proxy attributes align indirectly with the remaining revised specific attribute [6. *Disturbance at areas ecologically connected to colony - levels do not significantly impact breeding population*] as no impacts to the breeding colony resulted in an AEOSI in relation to Conservation Objective 1.

Table 1: Summary of updated Site-specific Conservation Objectives for SPAs

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
South Dublin Bay and River Tolka Estuary SPA (IE0004024) - No change in Conservation Objectives since September 2024. [Last updated March 2015]			
North Bull Island SPA (IE0004006) - No change in Conservation Objectives since September 2024. [Last updated March 2015]			
Dalkey Islands SPA (IE0004172) [Conservation objectives updated October 2024]	Common Tern [A193]	To maintain or restore the favourable conservation condition of SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To restore the Favourable conservation condition of Common Tern in Dalkey Islands SPA: Post-breeding and passage population size - Long term SPA population trend is stable or increasing Distribution: extent of available roosting options within the SPA - Sufficient availability of suitable roosting resources within the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at roosting site - Disturbance occurs at levels that do not significantly impact on birds at the roost sites Disturbance at areas ecologically connected to the roost sites - Disturbance occurs at levels that do not significantly impact on the post-breeding and passage population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Arctic tern [A194]		To restore the Favourable conservation condition of Arctic Tern in Dalkey Islands SPA: Post-breeding and passage population size - Long term SPA population trend is stable or increasing Distribution: extent of available roosting options within the SPA - Sufficient availability of suitable roosting resources within the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at roosting site - Disturbance occurs at levels that do not significantly impact on birds at the roost sites Disturbance at areas ecologically connected to the roost sites - Disturbance occurs at levels that do not significantly impact on the post-breeding and passage population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Roseate tern [A192]		To restore the Favourable conservation condition of Roseate Tern in Dalkey Islands SPA: Post-breeding and passage population size - Long term SPA population trend is stable or increasing Distribution: extent of available roosting options within the SPA - Sufficient availability of suitable roosting resources within the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at roosting site - Disturbance occurs at levels that do not significantly impact on birds at the roost sites Disturbance at areas ecologically connected to the roost sites - Disturbance occurs at levels that do not significantly impact on the post-breeding and passage population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
The Murrough SPA (IE0004186) [Conservation objectives updated October 2024]	<i>Larus argentatus</i> - Herring gull [A184]	To maintain the favourable conservation condition of the following SCIs, which is defined by the following list of attributes and targets:	To maintain the Favourable conservation condition of Herring Gull in The Murrough SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Black-headed gull [A179]		To maintain the Favourable conservation condition of Black-headed Gull in The Murrough SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	<i>Gavia stellata</i> - Red-throated diver [A001]		To maintain the Favourable conservation condition of Red-throated Diver in The Murrough SPA: Non-breeding population size - Long term SPA population trend is stable or increasing Spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance across the site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	<i>Sternula albifrons</i> - Little tern [A885]		To maintain the Favourable conservation condition of Little Tern in The Murrough SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - No significant increase

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
	Light-bellied brent goose [A046]		To restore the Favourable conservation condition of Light-bellied Brent Goose in The Murrough SPA: Winter population trend - Long term population trend stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA.
	<i>Anser anser</i> - Greylag goose [A043]		To restore the Favourable conservation condition of Greylag Goose in The Murrough SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site -Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	<i>Anas crecca</i> - Teal [A052]		To maintain the Favourable conservation condition of Teal in The Murrough SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
	<i>Mareca penelope</i> - Wigeon [A855]		To maintain the Favourable conservation condition of Wigeon in The Murrough SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
Wicklow Head SPA (IE004127) [Conservation objectives updated September 2024]	<i>Rissa tridactyla</i> -Kittiwake [A188]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	To restore the Favourable conservation condition of Kittiwake in Wicklow Head SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Howth Head Coast SPA (IE004113) [Conservation objectives updated October 2024]	Kittiwake [A188]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the	To restore the Favourable conservation condition of Kittiwake in Howth Head Coast SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		SCI's population on a long-term basis.	
Ireland's Eye SPA (IE004117) [Conservation objectives updated November 2024]	Kittiwake [A188]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	To restore the Favourable conservation condition of Kittiwake in Ireland's Eye SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Herring gull [A184]		To restore the Favourable conservation condition of Herring Gull in Ireland's Eye SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	<i>Uria aalge</i> - Guillemot [A199]		To maintain the Favourable conservation condition of Guillemot in Ireland's Eye SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	<i>Alca torda</i> - Razorbill [A200]		To maintain the Favourable conservation condition of Razorbill in Ireland's Eye SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
	<i>Phalacrocorax carbo</i> - Cormorant [A017]		Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA To restore the Favourable conservation condition of Cormorant in Ireland's Eye SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Lambay Island SPA (IE004069) [Conservation objectives updated November 2024]	Kittiwake [A188]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	To restore the Favourable conservation condition Kittiwake in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	<i>Fulmarus glacialis</i> - Fulmar [A009]		To restore the Favourable conservation condition of Fulmar in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Herring gull [A184]		To restore the Favourable conservation condition of Herring Gull in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Winter population trend - Long term winter population trend is stable or increasing Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			support the population target Forage spatial distribution, extent, abundance and availability (winter and breeding) - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at breeding or wintering sites - Disturbance occurs at levels that do not significantly impact on birds at the breeding or wintering sites Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Winter roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting winter habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA Barriers to connectivity (winter and breeding) - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	<i>Larus fuscus</i> - Lesser black-backed gull [A183]		To maintain the Favourable conservation condition of Lesser Black-backed Gull in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Guillemot [A199]		To maintain the Favourable conservation condition of Guillemot in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Razorbill [A200]		To maintain the Favourable conservation condition of Razorbill in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
	<i>Fratercula arctica</i> - Puffin [A204]		To restore the Favourable conservation condition of Puffin in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Cormorant [A017]		To restore the Favourable conservation condition of Cormorant in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - No significant decline Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Greylag goose [A043]		To restore the Favourable conservation condition of Greylag Goose in Lambay Island SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	<i>Phalacrocorax aristotelis</i> - Shag [A018]		To restore the Favourable conservation condition of Shag in Lambay Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Rockabill SPA (IE004014) - No change in Conservation Objectives since September 2024. [Last updated May 2013]			
Skerries Islands SPA (IE004122) [Conservation objectives updated November 2024]	Herring gull [A184]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	To restore the Favourable conservation condition of Herring Gull in Skerries Islands SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Winter population trend - Long term winter population trend is stable or increasing Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Forage spatial distribution, extent, abundance and availability (winter and breeding) - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at breeding or wintering sites - Disturbance occurs at levels that do not significantly impact the achievement of targets Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting winter habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA Barriers to connectivity and site use (winter and breeding) - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Light-bellied brent goose [A046]		To maintain the Favourable conservation condition of Light-bellied Brent Goose in Skerries Islands SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Purple sandpiper [A148]		To maintain the Favourable conservation condition of Purple Sandpiper in Skerries Islands SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Turnstone [A169]		To maintain the Favourable conservation condition of Turnstone in Skerries Islands SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Cormorant [A017]		To restore the Favourable conservation condition of Cormorant in Skerries Islands SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Winter population trend - Long term winter population trend is stable or increasing Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Forage spatial distribution, extent, abundance and availability (winter and breeding) - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at breeding or wintering sites - Disturbance occurs at levels that do not significantly impact the achievement of targets Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Winter roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting winter habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA Barriers to connectivity and site use (winter and breeding) - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Shag [A018]		To restore the Favourable conservation condition of Shag in Skerries Islands SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA

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Saltee Islands SPA (IE004002) - No change in Conservation Objectives since September 2024. [Last updated October 2011]			
Helvick Head to Ballyquin SPA (IE004192) [Conservation objectives updated May 2025]	Kittiwake [A188]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	To restore the Favourable conservation condition of Kittiwake in Helvick Head to Ballyquin SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding sit Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Old Head of Kinsale SPA (IE004021) [Conservation objectives updated March 2025]	Kittiwake [A188]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	To restore the Favourable conservation condition of Kittiwake in Old Head of Kinsale SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Horn Head to Fanad Head SPA (IE004194) [Conservation objectives updated June 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI	To restore the Favourable conservation condition of Fulmar in Horn Head to Fanad Head SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Beara Peninsula SPA (IE004155) - No change in Conservation Objectives since September 2024. [Last updated October 2022]			
Tory Island SPA (IE004073) [Conservation Objectives updated May 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future.	To maintain the Favourable conservation condition of Fulmar in Tory Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Corncrake [A122]	3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's population on a long-term basis.	To maintain the Favourable conservation condition of Corncrake in Tory Island SPA: Population size - Maintain the numbers of calling males at an average of at least 20 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Maintain the spatial utilisation of the SPA by breeding pairs at at least 50-75% Extent and condition of nesting and foraging habitat - At least maintain the extent and quality of this resource to support the targets relating to population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
The Bull and the Cow Rocks SPA (IE004066) [Conservation Objectives updated May 2025]	Gannet [A016]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the	To maintain the Favourable conservation condition of Gannet in The Bull and The Cow Rocks SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		SCI's population on a long-term basis.	
West Donegal Coast SPA (IE004150) [Conservation Objectives updated June 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To restore the Favourable conservation condition of Fulmar in West Donegal Coast SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Corncrake [A122]		To restore the Favourable conservation condition of Corncrake in West Donegal Islands SPA: Population size - Restore the numbers of calling males to an average of at least 13 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Maintain the spatial utilisation of the SPA by breeding pairs at at least 50-75% Extent and condition of nesting and foraging habitat - Restore the extent and quality of this resource to support the targets relating to population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
Deenish Islands and Scariff Island SPA (IE004175) [Conservation Objectives updated April 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To restore the Favourable conservation condition of Fulmar in Deenish Island and Scariff Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	<i>Puffinus puffinus</i> -Manx shearwater [A013]	To maintain or restore the favourable conservation condition of the SCI(s):	To maintain the Favourable conservation condition of Manx Shearwater in Deenish Island and Scariff Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Iveragh Peninsula SPA (IE004154) [Conservation Objectives updated May 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To maintain the Favourable conservation condition of Fulmar in Iveragh Peninsula SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Puffin Island SPA (IE004003) [Conservation Objectives updated May 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To maintain the Favourable conservation condition of Fulmar in Puffin Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		basis	
	Manx shearwater [A013]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To maintain the Favourable conservation condition of Manx Shearwater in Puffin Island SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Skelligs SPA (IE004007) [Conservation Objectives updated May 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To restore the Favourable conservation condition of Fulmar in Skelligs SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Gannet [A016]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is	To restore the Favourable conservation condition of Gannet in Skelligs SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	SPA
	Manx shearwater [A013]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To maintain the Favourable conservation condition of Manx Shearwater in Skelligs SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Blasket Islands SPA (IE004008) [Conservation Objectives updated May 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To maintain the Favourable conservation condition of Fulmar in Blasket Islands SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
	Manx shearwater [A013]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on	To maintain the Favourable conservation condition of Manx Shearwater in Blasket Islands SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Dingle Peninsula SPA (IE004153) [Conservation Objectives updated June 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To restore the Favourable conservation condition of Fulmar in Dingle Peninsula SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Kerry Head SPA (IE002263) [Conservation Objectives updated March 2025]	Fulmar [A009]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term	To maintain the Favourable conservation condition of Fulmar in Kerry Head SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		basis	
North-west Irish Sea SPA (IE004236) - No change in Conservation Objectives since September 2024. [Last updated September 2023]			
Seas off Wexford SPA (IE004237) - No change in Conservation Objectives since September 2024. [Last updated February 2024]			
Dundalk Bay SPA (IE004026) - No change in Conservation Objectives since September 2024. [Last updated July 2011]			
Boyne Estuary SPA (IE004080) - No change in Conservation Objectives since September 2024. [Last updated February 2013]			
River Nanny Estuary and Shore SPA (IE004158) - No change in Conservation Objectives since September 2024. [Last updated September 2012]			
Rogerstown Estuary SPA (IE004015) - No change in Conservation Objectives since September 2024. [Last updated May 2013]			
Baldoyle Bay SPA (IE004016) - No change in Conservation Objectives since September 2024. [Last updated February 2013]			
Malahide Estuary SPA (IE004025) - No change in Conservation Objectives since September 2024. [Last updated August 2013]			
Cahore Marshes SPA (IE004143) [Conservation Objectives updated February 2025]	Golden plover [A140]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To restore the Favourable conservation condition of Golden Plover at Cahore Marshes SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Greenland white-fronted goose [A395]		To restore the Favourable conservation condition of Greenland White-fronted Goose at Cahore Marshes SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Lapwing [A142]		To restore the Favourable conservation condition of Lapwing at Cahore Marshes SPA: Winter population trend - in number of individuals Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Wigeon [A050]		To restore the Favourable conservation condition of Wigeon at Cahore Marshes SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
The Raven SPA (IE004019) - No change in Conservation Objectives since September 2024. [Last updated January 2012]			
Wexford Harbour and Slobbs SPA (IE004076) - No change in Conservation Objectives since September 2024. [Last updated March 2012]			
Lady's Island Lake SPA (IE004009) [Conservation Objectives updated July 2025]	<i>Mareca strepera</i> - Gadwall [A051]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future.	To maintain the Favourable conservation condition of Gadwall in Lady's Island Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Black-headed gull [A179]	3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis	To maintain the Favourable conservation condition of Black-headed Gull in Lady's Island Lake SPA: Breeding population size - Long term SPA population trend is stable or increasing Productivity rate - Sufficient to maintain a stable or increasing population Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain a stable or increasing population Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Disturbance at the breeding site - Disturbance occurs at levels that do not significantly impact on birds at the breeding site Disturbance at areas ecologically connected to the colony - Disturbance occurs at levels that do not significantly impact on breeding population

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			Barriers to connectivity - Barriers do not significantly impact the population's access to the SPA or other ecologically important sites outside the SPA
Tacumshin Lake SPA (IE004092) [Conservation Objectives updated February 2025]	Bewick's swan [A037]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To restore the Favourable conservation condition of Bewick's Swan at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Black-tailed godwit [A156]		To maintain the Favourable conservation condition of Black-tailed Godwit at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Coot [A125]		To restore the Favourable conservation condition of Coot at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Gadwall [A051]		To restore the Favourable conservation condition of Gadwall at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Golden plover [A140]		To restore the Favourable conservation condition of Golden Plover at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Grey plover [A141]		To restore the Favourable conservation condition of Grey Plover at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Lapwing [A142]		To restore the Favourable conservation condition of Lapwing at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Little grebe [A004]		To maintain the Favourable conservation condition of Little Grebe at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Pintail [A054]		To restore the Favourable conservation condition of Pintail at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Shoveler [A056]		To restore the Favourable conservation condition of Shoveler at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Teal [A052]		To maintain the Favourable conservation condition of Teal at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
			important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Aythya fuligula - Tufted duck [A061]		To restore the Favourable conservation condition of Tufted Duck at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target
	Whooper swan [A038]		To maintain the Favourable conservation condition of Whooper Swan at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
	Wigeon [A050]		To restore the Favourable conservation condition of Wigeon at Tacumshin Lake SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA

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Ballyteige Burrow SPA (IE004020) - No change in Conservation Objectives since September 2024. [Last updated June 2014]			
Bannow Bay SPA (IE004033) - No change in Conservation Objectives since September 2024. [Last updated May 2012]			
Tramore Back Strand SPA (IE004027) - No change in Conservation Objectives since September 2024. [Last updated October 2013]			
Dungarvan Harbour SPA (IE004032) - No change in Conservation Objectives since September 2024. [Last updated January 2012]			
Blackwater Estuary SPA (IE004028) - No change in Conservation Objectives since September 2024. [Last updated May 2012]			
Ballymacoda Bay SPA (IE004023) - No change in Conservation Objectives since September 2024. [Last updated February 2015]			
Ballycotton Bay SPA (IE004022) - No change in Conservation Objectives since September 2024. [Last updated August 2014]			
Cork Harbour SPA (IE004030) - No change in Conservation Objectives since September 2024. [Last updated December 2014]			
Courtmacsherry Bay SPA (IE004219) - No change in Conservation Objectives since September 2024. [Last updated October 2014]			
Clonakilty Bay SPA (IE004081) - No change in Conservation Objectives since September 2024. [Last updated October 2014]			
Poulaphouca Reservoir SPA (IE004063) [Conservation Objectives updated June 2024]	Greylag goose [A043]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To restore the Favourable conservation condition of Greylag Goose in Poulaphouca Reservoir SPA: Winter population trend - Long term winter population trend is stable or increasing Winter spatial distribution - Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target Disturbance at wintering site - Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and spatial distribution Barriers to connectivity and site use - Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA Forage spatial distribution, extent and abundance - Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target Roost spatial distribution and extent - Sufficient number of locations, area and availability of suitable roosting habitat to support the population target Supporting habitat: area and quality - Sufficient area of utilisable habitat available in ecologically important sites outside the SPA
Carlingford Lough SPA (IE004078) - No change in Conservation Objectives since September 2024. [Last updated August 2013]			
Lough Foyle SPA (IE004087) - No change in Conservation Objectives since September 2024. [Last updated September 2014]			
Connemara Bog Complex SPA (IE004181) - No change in Conservation Objectives since September 2024. [Last updated January 2023]			
Derryveagh and Glendowan Mountains SPA (IE004039) [Conservation Objectives updated August 2024]	Merlin [A098]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is	To maintain the Favourable conservation condition of Merlin in Derryveagh and Glendowan Mountains SPA: Population size - Breeding population is increasing/stable Productivity rate - Sufficient to meet the population size target Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain the population Extent and condition of suitable open habitats for foraging - Sufficient availability of suitable foraging habitat across the SPA to support targets relating to population size, productivity rate and distribution Disturbance at breeding sites - Disturbance occurs at levels that do not significantly impact upon the breeding population

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	
Falcarragh to Meenlaragh SPA (IE004149) [Conservation Objectives updated July 2024]	<i>Crex crex</i> - Corncrake [A122]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To restore the Favourable conservation condition of Corncrake in Falcarragh to Meenlaragh SPA: Population size - Maintain the numbers of calling males at an average of at least 7 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Restore the spatial utilisation of the SPA by breeding pairs to at least 25-40% Extent and condition of nesting and foraging habitat - Restore the extent and quality of this resource to support the targets relating to population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
Fanad Head SPA (IE004148) [Conservation Objectives updated July 2024]	Corncrake [A122]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To restore the Favourable conservation condition of Corncrake in Fanad Head SPA: Population size - Restore the numbers of calling males to an average of at least 3 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Restore the spatial utilisation of the SPA by breeding pairs to at least 25-40% Extent and condition of nesting and foraging habitat - Restore the extent and quality of this resource to support the targets relating to population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
Inishbofin, Inishdooey and Inishbeg SPA (IE004083)	Corncrake [A122]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on	To maintain the Favourable conservation condition of Corncrake in Inishbofin, Inishdooey and Inishbeg SPA: Population size - Maintain the numbers of calling males at an average of at least 13 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Maintain the spatial utilisation of the SPA by breeding pairs at at least 50-75%

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
[Conservation Objectives updated May 2025]		the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	Extent and condition of nesting and foraging habitat - At least maintain the extent and quality of this resource to support the targets relating to population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
Inishbofin, Omev Island and Turbot Island SPA (IE004231) [Conservation Objectives updated July 2024]	Corncrake [A122]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To maintain the Favourable conservation condition of Corncrake in Inishbofin, Omev Island and Turbot Island SPA: Population size - Maintain the numbers of calling males at an average of at least 9 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Maintain the spatial utilisation of the SPA by breeding pairs to at least 30-50% Extent and condition of nesting and foraging habitat - At least maintain the extent and quality of this resource to support the targets relating to population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
Killarney National Park SPA (IE004038) [Conservation Objectives updated August 2024]	Merlin [A098]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term	To maintain the Favourable conservation condition of Merlin in Killarney National Park SPA: Population size - Breeding population is increasing/stable Productivity rate - Sufficient to meet the population size target Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain the population Extent and condition of suitable open habitats for foraging - Sufficient availability of suitable foraging habitat across the SPA to support targets relating to population size, productivity rate and distribution Disturbance at breeding sites - Disturbance occurs at levels that do not significantly impact upon the breeding population

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		basis.	
Lough Corrib SPA (IE004042) - No change in Conservation Objectives since September 2024. [Last updated January 2023]			
Lough Nillan Bog SPA (IE004110) [Conservation Objectives updated April 2025]	Merlin [A098]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To maintain the Favourable conservation condition of Merlin in Lough Nillan Bog SPA: Population size - Breeding population is stable/increasing Productivity rate - Sufficient to maintain the population size target Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain the population Extent and condition of suitable open habitats for foraging - Sufficient availability of suitable foraging habitat across the SPA to support targets relating to population size, productivity rate and distribution Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon the breeding population
Malin Head SPA (IE004146) [Conservation Objectives updated July 2024]	Corncrake [A122]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To restore the Favourable conservation condition of Corncrake in Malin Head SPA: Population size - Restore the numbers of calling males to an average of at least 6 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Restore the spatial utilisation of the SPA by breeding pairs to at least 25-40% Extent and condition of nesting and foraging habitat - Restore the extent and quality of this resource to support the targets relating to population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
Middle Shannon Callows SPA (IE004096) - No change in Conservation Objectives since September 2024. [Last updated November 2022]			
Mullaghanish to Musheramore Mountains SPA (IE004162) - No change in Conservation Objectives since September 2024. [Last updated September 2022]			
Mullet Peninsula SPA (IE004227) [Conservation Objectives updated May 2025]	Corncrake [A122]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is	To maintain the Favourable conservation condition of Corncrake in Mullet Peninsula SPA: Population size - Maintain the numbers of calling males at an average of at least 5 per year in any consecutive 5-year period Population trend - Long-term population trend is stable or increasing Spatial utilisation by breeding pairs - Maintain the spatial utilisation of the SPA by breeding pairs to at least 25-40% Extent and condition of nesting and foraging habitat - At least maintain the extent and quality of this resource to support the targets relating to

Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	population size, population trend and spatial utilisation Forage spatial distribution, extent, abundance and availability - Sufficient number of locations, area of suitable habitat and available prey biomass to support the population targets Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon breeding Corncrake
Owenduff/Nephin Complex SPA (IE004098) [Conservation Objectives updated April 2025]	Merlin [A098]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	To restore the Favourable conservation condition of Merlin in Owenduff/Nephin Complex SPA: Population size - Breeding population is increasing Productivity rate - Sufficient to maintain the population size target Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain the population Extent and condition of suitable open habitats for foraging - Sufficient availability of suitable foraging habitat across the SPA to support targets relating to population size, productivity rate and distribution Disturbance to breeding sites - Disturbance occurs at levels that do not significantly impact upon the breeding population
Slieve Aughty Mountains SPA (IE004168) - No change in Conservation Objectives since September 2024. [Last updated December 2022]			
Slieve Beagh SPA (IE004167) - No change in Conservation Objectives since September 2024. [Last updated September 2022]			
Slieve Bloom Mountains SPA (IE004160) - No change in Conservation Objectives since September 2024. [Last updated September 2022]			
Slievefelim to Silvermines Mountains SPA (IE004165) - No change in Conservation Objectives since September 2024. [Last updated September 2022]			
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (IE004161) - No change in Conservation Objectives since September 2024. [Last updated September 2022]			
Wicklow Mountains SPA (IE004040) [Conservation Objectives updated July 2024]	Merlin [A098]	To maintain or restore the favourable conservation condition of the SCI(s): 1. Population dynamics data on the SCI indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats. 2. The natural range of the SCI is neither being reduced nor is	To maintain the Favourable conservation condition of Merlin in Wicklow Mountains SPA: Population size - Breeding population is increasing/stable Productivity rate - Sufficient to meet the population size target Distribution: extent of available nesting options within the SPA - Sufficient availability of suitable nesting sites throughout the SPA to maintain the population Extent and condition of suitable open habitats for foraging - Sufficient availability of suitable foraging habitat across the SPA to support targets relating to population size, productivity rate and distribution Disturbance at breeding sites - Disturbance occurs at levels that do not significantly impact upon the breeding population



Site Name	SCI	Conservation Objectives, attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		likely to be reduced for the foreseeable future. 3. There is, and will probably continue to be, a sufficiently large habitat to maintain the SCI's populations on a long-term basis.	



NIS Addendum

Appendix B – SAC Site Specific Conservation Objectives







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INTRODUCTION

1. Codling Wind Park Limited (hereafter 'the Applicant') is proposing to develop the Codling Wind Park (CWP) Project, which is located in the Irish sea approximately 13 - 22 km off the east coast of Ireland, at County Wicklow.
2. This appendix supports the **NIS Addendum** and provides an outline of the updates made to the site specific conservation objectives of Irish SACs (listed in **Table 1**) included in the NIS since the submission of the NIS for the CWP Project in September 2024. The conservation objectives for non-Irish SACs have not been updated since the NIS submission and are not included in Table 1.
3. Out of the 34 Irish SACs listed in the NIS, 16 of them used proxy conservation objectives and attributes / targets as site specific conservation objectives were not available at the time of submission. The 16 SAC are as follows:
 - Codling Fault Zone SAC (harbour porpoise);
 - Lambay Island SAC (harbour porpoise);
 - Blackwater Bank SAC (harbour porpoise);
 - Carnsore Point SAC (harbour porpoise);
 - Hook Head SAC (harbour porpoise, bottlenose dolphin);
 - Kenmare River SAC (harbour porpoise);
 - Belgica Mound SAC (harbour porpoise, bottlenose dolphin);
 - Porcupine Bank Canyon SAC (harbour porpoise, bottlenose dolphin);
 - South-West Porcupine Bank SAC (harbour porpoise, bottlenose dolphin);
 - Kilkieran Bay and Islands SAC (harbour porpoise);
 - Inishmore Island SAC (harbour porpoise);
 - West Connacht Coast SAC (harbour porpoise);
 - Slyne Head Islands SAC (bottlenose dolphin);
 - Slyne Head Peninsula SAC (bottlenose dolphin);
 - Duvillan Islands SAC (bottlenose dolphin); and
 - St. Johns Point SAC (bottlenose dolphin).
4. Since the submission of the NIS, 12 of these SACs have updated site specific conservation objectives and attributes / targets for at least one of the qualifying interests that since submission of the NIS. There are four SACs that have at least one qualifying interest to have no site specific conservation objectives available for which proxy conservation objectives will continue to be used for any relevant updates to assessment. The four SAC are as follows:
 - Kenmare River SAC (harbour porpoise);
 - Kilkieran Bay and Islands SAC (harbour porpoise);
 - Slyne Head Peninsula SAC (bottlenose dolphin); and
 - St. Johns Point SAC (bottlenose dolphin).
5. Two SACs (Porcupine Bank Canyon SAC and South-West Porcupine Bank SAC) have included harbour porpoise as a qualifying interest in the NIS. However, these SACs no longer have this species listed as a qualifying interest by NPWS leading to the assumption that it has been delisted.
6. Two SACs (West Connacht Coast SAC and Lower River Shannon SAC) are to be updated to include site specific attributes as these were missing in the submitted NIS.

Table 1 Summary of Updated Site Specific Conservation Objectives for SACs

Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
Special Areas of Conservation (SACs)			
South Dublin Bay SAC (IE000210)			
	Mudflats and sandflats not covered by seawater at low tide [1140]	No change in Conservation Objective or Attributes/Targets	
	Annual vegetation of drift lines [1210]	No change in Conservation Objective or Attributes/Targets	
	Salicornia and other annuals colonising mud and sand [1310]	No change in Conservation Objective or Attributes/Targets	
	Embryonic shifting dunes [2110]	No change in Conservation Objective or Attributes/Targets	
Rockabill to Dalkey Island SAC (IE003000)			
	Reefs [1170]	No change in Conservation Objective or Attributes/Targets	
	<i>Phocoena Phocoena</i> - Harbour porpoise [1351]	No change in Conservation Objective or Attributes/Targets	
North Dublin Bay SAC (IE000206)			
	Mudflats and sandflats not covered by seawater at low tide [1140]	No change in Conservation Objective or Attributes/Targets	
	Salicornia and other annuals colonising mud and sand [1310]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]	No change in Conservation Objective or Attributes/Targets	
	Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	No change in Conservation Objective or Attributes/Targets	
Codling Fault Zone SAC (IE003015)			
	Harbour porpoise [1351]	Change in Conservation Objective: The Conservation Objective for the Rockabill to Dalkey Island SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in Codling Fault Zone SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO003015.pdf, [2025]) The updated conservation objectives and attributes/targets remain the same as the proxy used in the NIS therefore, no change is needed.

Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
Lambay Island SAC (IE000204)			
	<i>Halichoerus grypus</i> - Grey seal [1364]	No change in Conservation Objective or Attributes/Targets	
	<i>Phoca vitulina</i> - Harbour seal [1365]	No change in Conservation Objective or Attributes/Targets	
	Harbour porpoise [1351]	In March 2024, harbour porpoise were added as a Qualifying Interest to the Lambay Island SAC. While the Site Synopsis was amended in March 2024 to list harbour porpoise, it provides no information on the presence of porpoise within the site, or the importance of the site for harbour porpoise. Since the Lambay Island SAC is primarily on land, and is located within the Rockabill to Dalkey Island SAC (for which a full assessment has been provided), it was not assessed separately in the NIS for harbour porpoise.	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in Lambay Island SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO000204.pdf, [2024]) Since the Lambay Island SAC is primarily on land, and is located within the Rockabill to Dalkey Island SAC (for which a full assessment has been provided), it is not assessed separately here for harbour porpoise.
Blackwater Bank SAC (IE002953)			
	Harbour porpoise [1351]	Change in Conservation Objective: The Conservation Objective for the Rockabill to Dalkey Island SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in Blackwater Bank SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO002953.pdf, [2024]) The updated conservation objectives and attributes/targets remain the same as the proxy used in the NIS therefore, no change is needed.
Blasket Islands SAC (IE002172)			
	Harbour porpoise [1351]	No change in Conservation Objective or Attributes/Targets	
Carnsore Point SAC (IE002269)			
	Harbour porpoise [1351]	Change in Conservation Objective: The Conservation Objective for the Rockabill to Dalkey Island SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in Carnsore Point SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO002269.pdf, [2024]) The updated conservation objectives and attributes/targets remain the same as the proxy used in the NIS therefore, no change is needed.
Hook Head SAC (IE000764)			

Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
	Harbour porpoise [1351]	Change in Conservation Objective: The Conservation Objective for the Rockabill to Dalkey Island SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in Hook Head SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO000764.pdf, [2025]) The updated conservation objectives and attributes/targets remain the same as the proxy used in the NIS therefore, no change is needed.
	Bottlenose dolphin [1349]	Change in Conservation Objective: The Conservation Objective for the West Connacht Coast SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Bottlenose Dolphin (<i>Tursiops truncatus</i>) in Hook Head SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Bottlenose Dolphin population at the site (CO000764.pdf, [2025]) The updated conservation objectives and targets remain the same as the proxy used in the NIS, only change needed is an update to include attributes.
Roaringwater Bay and Islands SAC (IE000101)			
	Harbour porpoise [1351]	No change in Conservation Objective or Attributes/Targets	
Kenmare River SAC (IE002158)			
	Harbour porpoise [1351]	The Conservation Objective for the Rockabill to Dalkey Island SAC (used in the NIS as a proxy) was to maintain the favourable conservation condition of harbour porpoise in the SAC, which was defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site	This species is listed by NPWS on the SACs homepage (Kenmare River SAC National Parks & Wildlife Service) however no conservation objectives are available within the SACs Conservation Objective PDF (see link below). Therefore, the conservation objectives for the Rockabill to Dalkey Island SAC will continue to be used as a proxy. (ConservationObjectives.rdl, [2013])
Belgica Mound Province SAC (IE002327)			
	Harbour porpoise [1351]	Change in Conservation Objective: The Conservation Objective for the Rockabill to Dalkey Island SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in Belgica Mound Province SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO002327.pdf, [2025]) The updated conservation objectives and attributes/targets remain the same as the proxy used in the NIS therefore, no change is needed.

Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
	Bottlenose dolphin [1349]	No Conservation Objectives relating to bottlenose dolphins were available for this SAC at the time of submission. As such, the Conservation Objectives listed for the West Connacht Coast SAC were applied in this assessment as proxy. Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	SAC was screened out of assessment as it is not located in the Irish Sea MU
Porcupine Bank Canyon SAC (IE003001)			
	Harbour porpoise [1351]	The Conservation Objective for the Rockabill to Dalkey Island SAC (was used in the NIS as a proxy) was to maintain the favourable conservation condition of harbour porpoise in the SAC, which was defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site	This species is not listed by NPWS on the SACs homepage (Porcupine Bank Canyon SAC National Parks & Wildlife Service) and no conservation objectives are available within the SACs Conservation Objective PDF (see link below). Therefore, the assumption is made that this species has been delisted. (CO003001.pdf , [2024])
	Bottlenose dolphin [1349]	No Conservation Objectives relating to bottlenose dolphins were available for this SAC at time of submission. As such, the Conservation Objectives listed for the West Connacht Coast SAC were applied in this assessment as proxy. Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	SAC was screened out of assessment as it is not located in the Irish Sea MU
South-West Porcupine Bank SAC (IE002329)			
	Harbour porpoise [1351]	The Conservation Objective for the Rockabill to Dalkey Island SAC (was used in the NIS as a proxy) was to maintain the favourable conservation condition of harbour porpoise in the SAC, which was defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site	This species is not listed by NPWS on the SACs homepage (South-west Porcupine Bank SAC National Parks & Wildlife Service) and no conservation objectives are available within the SACs Conservation Objective PDF (see link below). Therefore, the assumption is made that this species has been delisted. (CO002329.pdf , [2024])
	Bottlenose dolphin [1349]	No Conservation Objectives relating to bottlenose dolphins were available for this SAC at the time of submission. As such, the Conservation Objectives listed for the West Connacht Coast SAC were applied in this assessment as proxy. Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	SAC was screened out of assessment as it is not located in the Irish Sea MU
Kilkieran Bay and Islands SAC (IE002111)			
	Harbour porpoise [1351]	The Conservation Objective for the Rockabill to Dalkey Island SAC (used in the NIS as a proxy) was to maintain the favourable conservation condition of harbour porpoise in the SAC, which was defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site	The species is listed by NPWS on the SACs homepage (Kilkieran Bay and Islands SAC National Parks & Wildlife Service) however no conservation objectives are available within the SACs Conservation Objective PDF (see link below). Therefore, the conservation objectives for the Rockabill to Dalkey Island SAC will continue to be used as a proxy. (ConservationObjectives.rdl , [2014])

Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
Inishmore Island SAC (IE000213)			
	Harbour porpoise [1351]	Change in Conservation Objective: The Conservation Objective for the Rockabill to Dalkey Island SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in Inishmore Island SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO000213.pdf, [2024]) The updated conservation objectives and attributes/targets remain the same as the proxy used in the NIS therefore, no change is needed.
West Connacht Coast SAC (002998)			
	Harbour porpoise [1351]	Change in Conservation Objective: The Conservation Objective for the Rockabill to Dalkey Island SAC was used as a proxy in the NIS	To maintain the Favourable conservation condition of Harbour Porpoise (<i>Phocoena phocoena</i>) in West Connacht Coast SAC, which is defined by the following list of attributes and targets: Access to suitable habitat - Species range within the site should not be restricted by artificial barriers to site use Disturbance - Human activities should occur at levels that do not adversely affect the Harbour Porpoise community at the site (CO002998.pdf, [2025]) The updated conservation objectives and attributes/targets remain the same as the proxy used in the NIS therefore, no change is needed.
	Bottlenose dolphin [1349]	To maintain the favourable conservation condition of bottlenose dolphin in West Connacht Coast, which is defined by the following list of attributes and targets: Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	SAC was screened out of assessment as it is not located in the Irish Sea MU
Slyne Head Islands SAC (IE000328)			
	Bottlenose dolphin [1349]	No Conservation Objectives relating to bottlenose dolphins were available for this SAC at the time of submission. It should be noted that Slyne Head Islands SAC cover the same bottlenose dolphin population as the West Connacht Coast SAC. As such, the Conservation Objectives listed below for the West Connacht Coast SAC were applied in this assessment as proxy Conservation Objectives for the Slyne Head Islands SAC. Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	SAC was screened out of assessment as it is not located in the Irish Sea MU
Slyne Head Peninsula SAC (IE002074)			
	Bottlenose dolphin [1349]	No Conservation Objectives relating to bottlenose dolphins were available for this SAC at the time of submission. It should be noted that Slyne Head Peninsula SAC cover the same bottlenose dolphin population as the West Connacht Coast SAC. As such, the Conservation Objectives listed below for the West Connacht Coast	SAC was screened out of assessment as it is not located in the Irish Sea MU

Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		SAC were applied in this assessment as proxy Conservation Objectives for the Slyne Head Peninsula SAC. Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	
Duvillaun Islands SAC (IE000495)			
	Bottlenose dolphin [1349]	No Conservation Objectives relating to bottlenose dolphins were available for this SAC at the time of submission. It should be noted that Slyne Head Peninsula SAC cover the same bottlenose dolphin population as the West Connacht Coast SAC. As such, the Conservation Objectives listed below for the West Connacht Coast SAC were applied in this assessment as proxy Conservation Objectives for the Slyne Head Peninsula SAC. Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	<i>SAC was screened out of assessment as it is not located in the Irish Sea MU</i>
St. Johns Point SAC (IE000191)			
	Bottlenose dolphin [1349]	No Conservation Objectives relating to bottlenose dolphins were available for this SAC at the time of submission. As such, the Conservation Objectives listed for the West Connacht Coast SAC were applied in this assessment as proxy. Species range within the site should not be restricted by artificial barriers to site use Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	<i>SAC was screened out of assessment as it is not located in the Irish Sea MU</i>
Slaney River Valley SAC (IE0000781)			
	<i>Petromyzon marinus</i> - Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	<i>Lampetra fluviatilis</i> - River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	<i>Alosa fallax</i> - Twaite shad [1103]	No change in Conservation Objective or Attributes/Targets	
	<i>Salmo salar</i> - Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
River Barrow and River Nore SAC (IE0002162)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Twaite shad [1103]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
Lower River Suir SAC (IE0002137)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Twaite shad [1103]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	

Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
Blackwater River (Cork / Waterford) SAC (IE0002170)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Twaite shad [1103]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
River Boyne and River Blackwater SAC (IE0002299)			
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
Cummeen Strand / Drumcliff Bay (Sligo Bay) SAC (IE0000627)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC (IE0000365)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
Killala Bay / Moy Estuary SAC (IE0000458)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
Lough Gill SAC (IE0001976)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
River Moy SAC (IE0002298)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
Castlemaine Harbour SAC (IE0000343)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
Lower River Shannon SAC (IE0002165)			
	Bottlenose dolphin [1349]	To maintain the favourable conservation condition of bottlenose dolphin in the Lower River Shannon SAC which is defined by the following list of attributes and targets: Species range within the site should not be restricted by artificial barriers to site use Critical areas, representing habitat used preferentially by bottlenose dolphin, should be conserved in a natural condition	SAC was screened out of assessment as it is not located in the Irish Sea MU



Site Name	Qualifying Interests	Conservation Objectives Attributes and targets from Original NIS Submission	Site Specific Conservation Objectives (if updated since original NIS Submission)
		Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site	
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	River lamprey [1099]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	
Lough Corrib SAC (IE0000297)			
	Sea lamprey [1095]	No change in Conservation Objective or Attributes/Targets	
	Atlantic salmon [1106]	No change in Conservation Objective or Attributes/Targets	

1 References

7. NPWS (2025) Conservation Objectives: Codling Fault Zone SAC 003015. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
8. NPWS (2024) Codling Fault Zone SAC (site code: 003015) Conservation objectives supporting document - Harbour Porpoise Version 1 November 2024
9. NPWS (2024) Conservation Objectives: Lambay Island SAC 000204. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
10. NPWS (2024) Lambay Island SAC (site code: 0000204) Conservation objectives supporting document - Harbour Porpoise Version 1 November 2024
11. NPWS (2024) Conservation Objectives: Blackwater Bank SAC 002953. Version 3. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
12. NPWS (2024) Blackwater Bank SAC (site code: 002953) Conservation objectives supporting document - Harbour Porpoise Version 1 November 2024
13. NPWS (2024) Conservation Objectives: Carnsore Point SAC 002269. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
14. NPWS (2024) Carnsore Point SAC (site code: 002269) Conservation objectives supporting document - Harbour Porpoise Version 1 November 2024
15. NPWS (2025) Conservation Objectives: Hook Head SAC 000764. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
16. NPWS (2024) Hook Head SAC (site code: 000764) Conservation objectives supporting document - Bottlenose Dolphin and Harbour Porpoise Version 1 November 2024
17. NPWS (2025) Conservation Objectives: Belgica Mound Province SAC 002327. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage
18. NPWS (2024) Belgica Mound Province SAC (site code: 002327) Conservation objectives supporting document - Bottlenose Dolphin and Harbour Porpoise Version 1 November 2024
19. NPWS (2024) Conservation Objectives: Inishmore Island SAC 000213. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage
20. NPWS (2024) Inishmore Island SAC (site code: 000213) Conservation objectives supporting document - Harbour Porpoise Version 1 November 2024
21. NPWS (2024) Conservation Objectives: Porcupine Bank Canyon SAC 003001. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.
22. NPWS (2025) Conservation Objectives: West Connacht Coast SAC 002998. Version 2. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage
23. NPWS (2024) West Connacht Coast SAC (site code: 002998) Conservation objectives supporting document - Harbour Porpoise Version 1 November 2024