

Addendum to the
Environmental Impact
Assessment Report

NISA
North Irish Sea Array

Volume 3 - Offshore Chapters

Chapter 18

Offshore Archaeology and Cultural Heritage



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18. Offshore Archaeology and Cultural Heritage

North Irish Sea Array Windfarm Ltd (NISA, hereafter referred to as ‘the Developer’) has been considering the Request for Further Information (RFI) issued by An Bord Pleanála (now An Coimisiún Pleanála) as well as the third-party submissions received following public consultation. At An Coimisiún Pleanála’s behest, the Developer has also continued to consult with stakeholders in respect of the 2024 planning application throughout 2024-2026. The Developer has refined elements of the design to respond to the third-party submissions, the continued public and stakeholder consultation and the RFI. Amendments are therefore required to Chapter 18: Offshore Archaeology and Cultural Heritage of the 2024 Environmental Impact Assessment Report (EIAR). Full details of consultation undertaken can be found in Appendix A1.2 in the Addendum to the EIAR.

For the purposes of clarity, this document shall be read in conjunction with Chapter 18 submitted as part of the 2024 EIAR.

Any cross reference to a chapter, section, table, image, figure or appendix within this document is to another location within the Addendum to the EIAR unless explicitly stated otherwise. Any cross reference to anything included in the 2024 EIAR will be clearly labelled as such.

Text in bold is only used throughout this document to indicate where changes are required, and what is subsequently driving them. Text in italics is text from a section of the 2024 EIAR which is deleted, or quotations from other documents (as explicitly stated). Replacement text is in normal font.

Tables which have been updated from the 2024 EIAR, or entirely new tables, have been included in the Addendum to the EIAR. These can be identified by the “A” prefix in the caption. Any changes within an updated table, in comparison to tables within the 2024 EIAR, are indicated by grey shading in the relevant cell, column or row, as necessary. The exception to this is when a table has changed in its entirety.

The sections relevant to Chapter 18 in the RFI are included below.

RFI Section	RFI	Relevance to Chapter
1 (b)	The scientific information provided as part of the planning application documentation should be based on up-to-date survey reports and data. Accordingly, the applicant is requested to confirm/provide justification/verification that the information submitted in support of the planning application remains relevant and appropriate at the point of submitting further information or to update same as required.	The timeframes associated with the RFI have necessitated a review of the datasets previously used in the 2024 EIAR to ensure any updates to the baseline environment are captured. Therefore, a review of the baseline offshore archaeology and cultural heritage environment has been undertaken to comply with RFI Section 1 (b).
1 (c)	The applicant is requested to confirm whether any on-going or additional surveying has been carried out since the application was lodged and, if so, the applicant is invited to submit any further survey data results and analysis and update the planning application documentation, as appropriate.	Further intertidal/nearshore geophysical surveys undertaken in 2023 and geophysical surveys undertaken in the array in 2024 have enabled updated analysis of maritime archaeology receptors, in accordance with RFI Section 1 (c).
4	The documentation submitted does not provide specific detail, assessment, or review of the range of ecosystem functions and services which could be impacted by the proposed development. The National Marine Planning Framework (NMPF) states that proposals to protect, maintain, restore, and enhance coastal habitats for ecosystem functioning and provision of ecosystem services will be supported, subject to the outcome of statutory environmental assessment processes.	A synopsis report of ecosystem functions and services has been provided in Appendix A3.3 Ecosystem Functions and Services Assessment, which considers the full range of ecosystem services set out in the report ‘Valuing Ireland’s Blue Ecosystem Services’ (SEMRU of NUI Galway, 2018). The outcome of individual receptor assessments concluded no material impact on ecosystem services, and no impediment to the ability of normal ecosystem functions and services to function, resulting from the proposed development.

RFI Section	RFI	Relevance to Chapter
	<p>Seafloor and Water Column Integrity Policy 3 of the NMPF also requires proposals to take account of the space required for coastal habitats, for ecosystem functioning and the provision of ecosystem services and to demonstrate that they will, in order of preference, avoid, minimise or mitigate for net loss of coastal habitats.</p> <p>The applicant is requested to update the EIAR to include an assessment of impacts (both positive and negative) on relevant ecosystem functions and services and include mitigation measures, as appropriate. The applicant is also requested to submit a synopsis report of the relevant impacts on ecosystem functions and services. In identifying the relevant ecosystem services for assessment, including those services classified as provisioning, regulation and maintenance, and cultural services, the applicant is advised to consider the full range of ecosystem services set out in the report ‘Valuing Ireland’s Blue Ecosystem Services’ (SEMURU of NUI Galway, 2018), as referenced in the NMPF. The report should also consider the need for an adaptive management framework for ongoing assessment and should include provision for appropriate monitoring of any mitigation measures and operational management strategies, as well as provision for decommissioning.</p>	<p>The Developer has not included a separate eco-system function assessments in the respective Chapters of the EIAR, as the conclusions of the EIAR are already directly linked to the assessment of ecosystem functions and services. This includes assessment of decommissioning impacts, the need for adaptive management, ongoing monitoring and/or other mitigations.</p>
5	<p>The Board notes that cumulative assessment was addressed under each topic specific chapter in the EIAR and addressed within Chapter 38 Cumulative and Interrelated Effects Assessment (CEA) (and associated Appendices 38.1 and 38.2).</p> <p>The Marine Institute in their observation raises concerns in relation to the methodology applied in the submitted cumulative effects assessment and the manner in which the information is presented, noting the lack of a standard Irish methodology in relation to CEA. The applicant is advised that guidance exists in the UK, namely Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment - GOV.UK, September 2024 (NSIP, 2024).</p> <p>The applicant is requested to revise the submitted cumulative assessment in line with NSIP (2024) and submit a standalone document to clearly demonstrate the CEA conclusions. In the interests of consistency and transparency, the applicant is requested to complete the assessment in accordance with the templates provided in the NSIP (2024), namely “Appendix 1: Matrix 1 – Identification of ‘other development’ for CEA” and “Appendix 2: Matrix 1 – Assessment matrix” (see attached Appendix B). This assessment should include each of the Irish Sea Phase 1 ORE Projects, namely (Oriel WF (ABP-319799-24), Arklow WF (ABP-319864-24), Codling Wind Park (ABP-320768-24), and Dublin Array WF (ABP-321992-25), and all other relevant projects in the International Council for the Exploration of the Sea (ICES) Celtic Sea and Greater North Sea ecoregions, regardless of project type. It is further requested that the applicant confirm that the now published documentation pertaining to the Irish Sea Phase 1 ORE projects, which have all been submitted to the Board for planning consent since this application was submitted, have been fully incorporated into the cumulative effects assessment.</p>	<p>The Cumulative Effects Assessment (CEA) has been revised in line with NSIP (2024) and relevant sections of Chapter 18 have been updated.</p>

RFI Section	RFI	Relevance to Chapter
	<p>In accordance with NSIP (2024) tiered approach, it is requested that the subject proposal and each of the Irish Sea Phase 1 ORE projects be classified under Tier 1 (“Other existing and, or approved development submitted applications under the Planning Acts or other regimes but not yet determined”).</p> <p>The applicant is requested to update the application documentation, where relevant.</p> <p>In the interests of comprehensiveness and for ease of reference, the applicant is strongly encouraged to liaise with the other Irish Sea Phase 1 ORE Project applicants in the preparation of the above assessment and drafting of the tables attached in Appendix B.</p>	
14 (a)	<p>Chapter 18 of the EIAR relates to Offshore Archaeology and Cultural Heritage. Section 18.3.2.5 states that at the time of writing of the EIAR the results of an additional intertidal and shallow water marine geophysical survey at the nearshore of the ECC was unavailable to determine the AEZ of the recorded wreck of the Belle Hill which is a national monument located c. 150m north of the EEC. The applicant is requested to submit the results of the referenced geophysical survey and update the chapter and associated analysis accordingly.</p>	<p>The Developer has provided the results of the referenced geophysical surveys (ADCO, 2024 and 2026) and the chapter and associated analysis have been updated accordingly.</p>

18.1 Introduction

There are no changes to this section. Refer to Section 18.1 of Chapter 18 of the 2024 EIAR.

18.2 Methodology

18.2.1 Introduction

There are no changes to this section. Refer to Section 18.2.1 of Chapter 18 of the 2024 EIAR.

18.2.2 Study Area

Whilst there are refinements to the project design (see Appendix A5.1: Design Refinements and Chapter 6: Description of the Proposed Development Offshore and Chapter 8: Construction Strategy - Offshore), the offshore archaeology and cultural heritage study area still encapsulates the greatest extent of any potential direct and indirect effects on archaeological and cultural heritage receptors. Therefore, there are no changes to this section. Refer to Section 18.2.2 of Chapter 18 of the 2024 EIAR.

18.2.3 Relevant Guidance and Policy

The key change to this section is the addition of new policy and guidance documents, in response to RFI Section 1 (b). The following documents in the bulleted list in Section 18.2.3 of Chapter 18 of the 2024 EIAR shall be deleted:

- “*Standard and Guidance for Historic Environment Desk-based Assessment (Chartered Institute for Archaeologists (CIfA), 2014, updated 2017)*;
- *Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes (English Heritage, now Historic England, 2013)*;

And be replaced with:

- Standard and Guidance for Historic Environment Desk-based Assessment (Chartered Institute for Archaeologists (CIfA), 2020); and

- Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes (Second Edition) (Historic England, 2025).

There are no other changes to this section. Refer to 18.2.3 of Chapter 18 of the 2024 EIAR.

18.2.4 Site-specific Surveys

The key change to this section is the addition of more recent data and reports that have become available since submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Sections 1 (b) and 14 (a). Therefore, the following text shall be added to Section 18.2.4 of Chapter 18 of the 2024 EIAR:

Further nearshore and intertidal geophysical surveys, which generated Magnetometer (Mag.), Side scan sonar (SSS) and multi-beam echosounder (MBES) datasets, were completed by SEP Hydrographic (2023) within the nearshore and intertidal areas of the Export Cable Corridor (ECC) to infill the baseline within this area. Archaeological assessment of these surveys alongside known archaeological receptors was completed by ADCO Ltd (ADCO 2024).

A geophysical survey which generated SSS, Mag. and MBES as well as ultra-high resolution 3D seismic datasets was completed across the array area in 2024 by TGS (TGS, 2025), with archaeological assessment by ADCO, to further assist with the engineering design of the wind farm (ADCO, 2026).

There are no other changes to this section. Refer to 18.2.4 of Chapter 18 of the 2024 EIAR.

18.2.5 Desk-based Review

The key change to this section is the updated desk-based review since the submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, in response to RFI Section 1 (b). Therefore Table 18.2 of Chapter 18 of the 2024 EIAR shall be deleted and replaced with Table A18.1:

Table A18.1: Data sources (replaces Table 18.2 of Chapter 18 of the 2024 EIAR)

Data	Source	Date	Notes
Wreck Inventory of Ireland Database (WIID)	National Monuments Service	24/08/2023, refreshed 02/03/2026	Data used to inform receptor gazetteer- Recorded Losses
Sites and Monuments Record (SMR)	Archaeological Survey of Ireland, National Monuments Service (NMS)	25/08/2023, refreshed 02/03/2026	Data used to inform receptor gazetteer
Topographical files	National Museum of Ireland	25/08/2023, refreshed 02/03/2026	Data used to inform receptor gazetteer
Wreck and obstructions database	United Kingdom Hydrographic Office (UKHO)	29/08/2023, refreshed 02/03/2026	Data used to inform receptor gazetteer

There are no other changes to this section. Refer to 18.2.5 of Chapter 18 of the 2024 EIAR.

18.2.6 Data Limitations

There are no changes to this section. Refer to Section 18.2.6 of Chapter 18 of the 2024 EIAR.

18.2.6.1 Geophysical data sources

The key change to this section is the addition of more recent data and reports that have become available since the submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Section 14 (b). Therefore, the following bullet points shall be added to Section 18.2.6.1 of Chapter 18 of the 2024 EIAR:

- Foreshore Licence FS007358-related archaeological technical reports from ADCO Ltd. (ADCO, 2024; 2026);
- Developer-acquired geophysical technical reports from SEP Hydrographic (SEP Hydrographic 2023);
- Georeferenced images of mosaiced SSS and MBBS along with georeferenced images of gridded MBES and Mag. Data for the nearshore and intertidal area of the ECC, surveyed by SEP Hydrographic in 2023; and
- Georeferenced images of mosaiced SSS and MBBS, gridded MBES and Mag. Data, and SBP profile lines for the array area, surveyed by TGS in 2024 (TGS, 2025).

The following paragraph shall be deleted:

“The provided reports were reviewed to extract offshore archaeology and cultural heritage baseline information on any wrecks or possible wreck debris within the study area, whether identified during the surveys or previously identified by the UKHO and NMS. Nine such features were identified, assigned a unique identification number and collated in a gazetteer for the purposes of defining the EIAR baseline (see Appendix 18.3). The positions of each feature were investigated in the provided data by viewing the images in ArcMap GIS and the dimensions and descriptions of anomalies observed were added to the gazetteer. Additional anomalies observed in the data which may be related to the features of interest were also added to the gazetteer, outlined in Section 18.3.2.”

And be replaced with:

The provided reports were reviewed to extract offshore archaeology and cultural heritage baseline information on any wrecks or possible wreck debris within the study area, whether identified during the surveys or previously identified by the UKHO and NMS. 14 such features were identified within the ECC and offshore development area and were assigned a unique identification number and collated in a gazetteer for the purposes of defining the EIAR baseline (see Appendix 18.1). A further nine features were identified within the intertidal and nearshore assessments and collated into a second gazetteer (see Appendix 18.2). The positions of each feature were investigated in the provided data by viewing the images in ArcMap GIS and the dimensions and descriptions of anomalies observed were added to the gazetteer. Additional anomalies observed in the data which may be related to the features of interest were also added to the gazetteer from the latest geophysical surveys (SEP Hydrographic, 2023; TGS, 2025), outlined in Section 18.3.2.

There are no other changes to this section. Refer to 18.2.6.1 of Chapter 18 of the 2024 EIAR.

18.2.6.2 Geophysical data quality and limitations

The key change to this section is the addition of more recent data and reports that have become available since the submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Section 14 (b). Therefore, the following text shall be added to Section 18.2.6.2 of Chapter 18 of the 2024 EIAR:

The TGS survey datasets (TGS, 2025) have been assessed as being suitable for archaeological assessment by ADCO (ADCO, 2026).

Nearshore and intertidal

The data quality of the nearshore and intertidal datasets (SEP Hydrographic 2023) was assessed by ADCO as having good overlap with the 2022 datasets for the ECC and being of similar quality (ADCO, 2024).

There are no other changes to this section. Refer to 18.2.6.2 of Chapter 18 of the 2024 EIAR.

18.2.7 Methodology for Assessment of Effects

There are no changes to this section. Refer to Section 18.2.7 of Chapter 18 of the 2024 EIAR.

18.2.7.1 Sensitivity criteria

There are no changes to this section. Refer to Section 18.2.7.1 of Chapter 18 of the 2024 EIAR.

18.2.7.2 *Magnitude of impact criteria*

There are no changes to this section. Refer to Section 18.2.7.2 of Chapter 18 of the 2024 EIAR.

18.2.7.3 *Defining the significance of effect*

There are no changes to this section. Refer to Section 18.2.7.3 of Chapter 18 of the 2024 EIAR.

18.3 **Baseline Environment**

18.3.1 **Introduction**

There are no changes to this section. Refer to Section 18.3.1 of Chapter 18 of the 2024 EIAR.

18.3.2 **Receiving Environment**

18.3.2.1 *Seabed Prehistory*

There are no changes to this section. Refer to Section 18.3.2.1 of Chapter 18 of the 2024 EIAR.

18.3.2.2 *Seabed features: maritime (array area)*

There are no changes to this section. Refer to Section 18.3.2.2 of Chapter 18 of the 2024 EIAR.

18.3.2.3 *Seabed features: maritime (ECC)*

There are no changes to this section. Refer to Section 18.3.2.3 of Chapter 18 of the 2024 EIAR.

18.3.2.4 *Other potential maritime features in the ECC*

The key change to this section is the addition of more recent data and reports that have become available since submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Sections 1 (b) and 14 (a). Therefore, the following paragraph shall be deleted:

“An anomaly WA7001 identified in the MBES dataset as a mound within a depression was located towards the end of a suspected trawl scar. A magnetic response was associated with this anomaly. The ADCO assessment suggested this could either be lost trawl gear or material associated with the Belle Hill wreck, which was located 470m to the WNW.”

And be replaced with:

An anomaly WA7001 identified in the MBES dataset as a mound within a depression was located towards the end of a suspected trawl scar. A magnetic response was associated with this anomaly. The ADCO assessment suggested this could either be lost trawl gear or material associated with the *Belle Hill* wreck, which was located 470m to the WNW. This feature was also identified within the nearshore geophysical survey Mag. and SSS datasets (SEP Hydrographic 2023; ADCO 2024).

There are no other changes to this section. Refer to 18.3.2.4 of Chapter 18 of the 2024 EIAR.

18.3.2.5 *Wider study area around ECC*

The key change to this section is the addition of more recent data and reports that have become available since the submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Sections 1 (b) and 14 (a). Therefore, the following text shall be deleted from Section 18.3.2.5 of Chapter 18:

“Additional intertidal and shallow water marine geophysical survey has been completed to cover the recorded position of the Belle Hill and infill the nearshore section of the ECC, so there is a possibility of extending any assigned AEZ to include the results of this survey. However, the data was unavailable at the point of writing and so will not be integrated into this chapter.”

And be replaced with:

The SEP Hydrographic 2023 intertidal and shallow water marine geophysical survey covered the recorded position of the *Belle Hill* and the nearshore section of the ECC, and further anomalies that may relate to pieces of this wreck were identified. This included a large Mag. anomaly (M_0142) of 11,000nT on the Low Water Mark to the south of the recorded position of the *Belle Hill* and a piece of linear debris identified in the SSS dataset between the recorded position (WA7000) and the large Mag. anomaly.

There are no other changes to this section. Refer to 18.3.2.5 of Chapter 18 of the 2024 EIAR.

18.3.2.6 Maritime archaeological potential

The key change to this section is the addition of more recent data and reports that have become available since submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Section 1 (b) and 14 (a). Therefore, the following text shall be deleted from Section 18.3.2.6 of Chapter 18 of the 2024 EIAR:

“The wreck of the Belle Hill (WA7000) was partially salvaged, and the remains then appear to have been dispersed, although reports note that significant portions of the wreck were visible in the 1950s and 1960s (Deery & Goucher 2008). There is therefore a high potential for material relating to the wreck, whether cargo or fragments of the ship, to be located within a wide area around the wreck location, potentially extending into the ECC. It is noted that there is a gap in information between the extents of the archaeologically assessed ECC marine geophysical survey (ADCO 2023b) and the intertidal survey area (ADCO 2023a), which is currently being surveyed. The results of this updated survey will be archaeologically assessed.

The nearshore elements of the ECC geophysical surveys showed an increase in magnetometry anomalies which have been assessed (ADCO 2023b) as likely to be related to the local geology, but the report does note that these may equally relate to wreck material from the Belle Hill. There is therefore also potential for currently unidentified wreck material within the nearshore section of the ECC.”

And be replaced with:

Ultra-high resolution survey datasets (Mag., SBP, SSS and MBES) of the array area were acquired in 2024 (TGS, 2025) to supplement project engineering design assumptions. These identified some potential pieces of debris (shown on Figure A18.1) that were assessed as being of low or no archaeological potential (ADCO, 2026).

The wreck of the *Belle Hill* (WA7000) was partially salvaged, and the remains then appear to have been dispersed, although reports note that significant portions of the wreck were visible in the 1950s and 1960s (Deery & Goucher 2008). There is therefore a high potential for material relating to the wreck, whether cargo or fragments of the ship, to be located within a wide area around the wreck location, potentially extending into the ECC. It was previously noted that there was a gap in information between the extents of the archaeologically assessed ECC marine geophysical survey (ADCO 2023b) and the intertidal survey area (ADCO 2023a). This gap was closed through a nearshore and intertidal geophysical survey (SEP Hydrographic 2023) which was archaeologically assessed by ADCO (ADCO 2024). Two additional anomalies with archaeological potential were identified, and these have been added to the intertidal baseline (see Section 18.3.2.5).

The nearshore elements of the ECC geophysical surveys showed an increase in magnetometry anomalies which have been assessed (ADCO 2023b) as likely to be related to the local geology, but the report does note that these may equally relate to wreck material from the *Belle Hill*. There is therefore also potential for currently unidentified wreck material within the nearshore section of the ECC, which may have been masked by the geology.

There are no other changes to this section. Refer to 18.3.2.6 of Chapter 18 of the 2024 EIAR.

18.3.2.7 Navigational hazards

There are no changes to this section. Refer to Section 18.3.2.7 of Chapter 18 of the 2024 EIAR.

18.3.2.8 Recorded losses

There are no changes to this section. Refer to Section 18.3.2.8 of Chapter 18 of the 2024 EIAR.

18.3.2.9 Overview of potential

There are no changes to this section. Refer to Section 18.3.2.9 of Chapter 18 of the 2024 EIAR.

18.3.2.10 Aviation archaeological baseline and potential

There are no changes to this section. Refer to Section 18.3.2.10 of Chapter 18 of the 2024 EIAR.

18.3.2.11 Recorded losses

There are no changes to this section. Refer to Section 18.3.2.11 of Chapter 18 of the 2024 EIAR.

18.3.2.12 Overview of potential

There are no changes to this section. Refer to Section 18.3.2.12 of Chapter 18 of the 2024 EIAR.

18.3.2.13 Intertidal receptors

The key change to this section is the addition of more recent data and reports that have become available since submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Sections 1 (b) and 14 (a). Table 18.12 of Chapter 18 of the 2024 EIAR shall be deleted and replaced with Table A18.2. Figure 18.4 of Chapter 18 of the 2024 EIAR shall be deleted and replaced by Figure A18.2. The first two paragraphs shall be deleted and replaced with:

Seven intertidal receptors have been identified within the intertidal walkover (ADCO 2023a) and a further two within the intertidal and nearshore geophysical survey (SEP Hydrographic 2023; ADCO 2024). These include three receptors to the north of the ECC in the study area and six receptors that lie within the landfall of the ECC (Figure A18.2).

Table A18.2: Intertidal receptors (replaces Table 18.12 of Chapter 18 of the 2024 EIAR)

Receptor No	ETRS89 UTM30N Easting	ETRS89 UTM30N Northing	Description
ADCO 01	285998	5901058	Look-out post No. 4. Concrete base for a coastal defence lookout post.
ADCO 02	285968	5901032	Debris: Ceramic sherd. Single sherd of ceramic within intertidal deposits.
ADCO 03	286121	5901164	Debris: Metal elements. Sections of iron bar or banding. Possible wreck material.
ADCO 04	286112	5901157	Debris: brass tap. Possible wreck material.
ADCO 05	285943	5901010	Memorial with small wooden cross dated 2018.
ADCO 06	285967	5901031	Stone culvert.
ADCO 07	289361	5946778	SSS linear feature, 10 m long aligned NNW-SSE with Mag. contact. Identified in intertidal/nearshore geophysical surveys 2024. Interpreted by ADCO as wreck debris potentially related to the Belle Hill.
M 0142	289385	5946700	Area of Mag. anomaly (11, 246.5nT) identified on several lines of drone magnetometer survey in intertidal/nearshore geophysical surveys 2024. Interpreted by ADCO as wreck debris, potentially related to the Belle Hill.
WA1001	285954	5901020	Sailor's grave/Belle Hill cairn. Cairn of stones on foreshore commemorating shipwreck victims.

The receptors within the ECC landfall from the walkover (ADCO 2023a) and the archaeological assessment of the intertidal and nearshore geophysical surveys (ADCO 2024) include four receptors that have been interpreted as probable wreck debris (ADCO 03, ADCO 04, ADCO 07 and M 0142), potentially either from the *Belle Hill* or from one of the many Recorded Losses wrecked on the Cardy Rocks.

The remaining four receptors are located on the landward edge of the intertidal zone and include a stone culvert (ADCO 06) thought to relate to the construction of the Great Northern Railway, a single sherd of ceramic (ADCO 02), the concrete base for a coastal defence lookout post (ADCO 01) and a small memorial constructed in 2018 (ADCO 05) (Figure A18.2).

The final paragraph in Section 18.3.2.13 of Chapter 18 of the 2024 EIAR shall be deleted:

“Potential for further material to be exposed along the intertidal zone is highlighted by the record relating to the Belle Hill wreck, which notes that the wreck was heavily salvaged and disturbed. While the original position of the wreck is to the north of the ECC the salvage activity may have spread related debris across the area of the ECC to the south of the wreck site. A programme of geophysical survey is currently being conducted, for which archaeological assessment will be completed to check for this potential.”

And be replaced with:

Potential for further material to be exposed along the intertidal zone is highlighted by the record relating to the Belle Hill wreck, which notes that the wreck was heavily salvaged and disturbed. While the original position of the wreck is to the north of the ECC the salvage activity may have spread related debris across the area of the ECC to the south of the wreck site, as demonstrated by other Mag. anomalies over 100nt with uncertain archaeological potential identified in the nearshore and intertidal as shown in Figure A18.2.

There are no other changes to this section. Refer to 18.3.2.13 of Chapter 18 of the 2024 EIAR.

18.4 Characteristics of the Proposed Development

The change required in this section is in response to the refinement of the foundation types for Project Option 1 and Project Option 2. In the 2024 EIAR, Wind Turbine Generator (WTG) monopile foundations and Offshore Substation Platform (OSP) monopile and jacket foundations with pin piles were considered. Following design refinement in response to the RFI, monopiles have been removed and WTGs are now proposed with Suction Bucket Jacket (SBJ) foundations, and OSPs with jacket foundations installed with either drilled pin piles or suction buckets, as indicated by the grey shading in Table A13.5 below (further information is provided in Appendix A5.1). Therefore, Table 18.13 of Chapter 18 of the 2024 EIAR shall be deleted and replaced with Table A18.3:

Table A18.3 Key characteristics of Project Option 1 and Project Option 2 (replaces Table 18.13 in Chapter 18 of the 2024 EIAR)

Key Offshore Characteristics	Project Option 1	Project Option 2
Array area	88.5km ²	88.5km ²
ECC	36.45km ²	36.45km ²
Landfall	One landfall site, immediately south of Bremore Point, which includes two subtidal exit pits within the ECC	One landfall site, immediately south of Bremore Point, which includes two subtidal exit pits within the ECC
WTG	49 WTGs with 250m rotor diameter	35 WTGs with 276m rotor diameter
WTG Foundations	49 multi-leg jacket foundations (three or four leg configurations) with suction buckets of 15m diameter and 98m diameter of seabed required for scour protection	35 multi-leg jacket foundations (three or four leg configurations) with suction buckets of 15m diameter and 98m diameter of seabed required for scour protection
OSP Foundations (array area)	One OSP with a four-legged jacket foundation with drilled pin piles, or suction buckets.	One OSP with a four-legged jacket foundation with drilled pin piles, or suction buckets.
Cables	Installation of 111km of array cables within the array area and installation of two 18km export cables within the ECC	Installation of 91km of array cables within the array area and installation of two 18km export cables within the ECC

There are no other changes to this section. Refer to 18.4 of Chapter 18 of the 2024 EIAR.

18.4.1 Parameters for Assessment

There are no changes to this section. Refer to 18.4.1 of Chapter 18 of the 2024 EIAR.

18.4.2 Construction

Owing to the proposed development design refinements, this section requires minor amendments. Seabed profiling via dredging to create a level platform for foundation installation will not be required. Seabed preparation will be carried out in advance of foundation construction and cable laying, as required. This would remove any boulders, obstructions or seabed debris that would impact the construction works. Therefore, the following bullet point shall be deleted from Section 18.4.2 of Chapter 18 of the 2024 EIAR:

- *“Seabed preparation prior to foundation installation and cable laying (methods include pre-lay grapnel run, trailing suction hopper dredger or mass flow excavation);”*

And be replaced with:

- Seabed preparation prior to foundation construction and cable laying (methods may include boulder clearance and pre-lay grapnel run);

There are no other changes to this section. Refer to 18.4.2 of Chapter 18 of the 2024 EIAR.

18.4.3 Operational Phase

There are no changes to this section. Refer to 18.4.3 of Chapter 18 of the 2024 EIAR.

18.4.4 Decommissioning

There are no changes to this section. Refer to 18.4.4 of Chapter 18 of the 2024 EIAR.

18.4.5 Embedded Mitigation Measures

There are no changes to this section. Refer to 18.4.5 of Chapter 18 of the 2024 EIAR.

18.4.6 Potential Impacts

As a result of design refinements in response to the RFI, WTGs are now proposed to be installed on SBJ foundations, while the OSP will be mounted on jacket foundations with either drilled pin piles or suction bucket foundations. These refinements have also affected other design parameters, leading to a change in the relevant characteristics of Project Option 1 and Project Option 2 for several impacts relevant to marine archaeology and cultural heritage. Therefore, Table 18.15 of Chapter 18 of the 2024 EIAR shall be updated and replaced with Table A18.4 below. New and updated information considered in this Addendum is indicated by the grey shading in Table A18.4

Table A18.4: Potential impacts and magnitude of impact per project option. The project option that has the greatest magnitude of impact is identified in blue (replaces Table 18.15 in Chapter 18 of the 2024 EIAR)

Potential impact	Project Option 1 (49 WTG)	Project Option 2 (35 WTG)	Rationale for the project option with the greatest magnitude of impact
Construction			
1. Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors	<p>Total area of direct physical impact (Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors): 6,593,894m².</p> <p>Array area</p> <p>Turbine foundation footprint with scour protection (49 locations) = 369,605m².</p> <p>One OSP with scour protection = 7,543m².</p> <p>Repeat attempts – Caisson footprint (allowance for relocation / micrositing due to failure to achieve penetration upon initial suction installation attempt, 20% of locations) = 7,069m².</p> <p>Wet storage allowance – Caisson footprint (Temporary placement of SBJ on seabed prior to ultimate placement at micro-sited location) = 7,069m².</p> <p>Total jack up footprint during construction (WTGs and OSP) = 226,195m².</p> <p>Cable seabed preparation and installation in the array trench area affected: 111km length, 40m width (including preparatory seabed measures) = 4,440,000m².</p> <p>Boulders required to be cleared across array area = 9,621m².</p> <p>Seabed disturbance from anchors and buoys = 75,960 m².</p> <p>ECC</p> <p>Cable seabed preparation and installation in the ECC trench area affected: 18km length, 40m width (including preparatory seabed measures) = 1,440,000m².</p> <p>Boulders to be cleared in the ECC = 196 m²</p> <p>Seabed disturbance from anchors and buoys in the ECC = 6,480m²</p>	<p>Total area of direct physical impact (Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors): 5,605,597m².</p> <p>Array area</p> <p>Turbine foundation footprint with scour protection (35 locations) = 264,004m².</p> <p>One OSP with scour protection = 7,543m².</p> <p>Repeat attempts – Caisson footprint (allowance for relocation / micrositing due to failure to achieve penetration upon initial suction installation attempt, 20% of locations) = 5,655m².</p> <p>Wet storage allowance – Caisson footprint (Temporary placement of SBJ on seabed prior to ultimate placement at micro-sited location) = 5,655m².</p> <p>Total jack up footprint during construction (WTGs and OSP) = 165,876m².</p> <p>Cable seabed preparation and installation in the array trench area affected: 91km length, 40m width (including preparatory seabed measures) = 3,640,000m².</p> <p>Boulders required to be cleared across array area = 6,872m².</p> <p>Seabed disturbance from anchors and buoys = 59,160 m².</p> <p>ECC</p> <p>Cable seabed preparation and installation in the ECC trench area affected: 18km length, 40m width (including preparatory seabed measures) = 1,440,000m².</p> <p>Boulders to be cleared in the ECC = 196 m²</p> <p>Seabed disturbance from anchors and buoys in the ECC = 6,480m²</p>	<p>Project Option 1 represents the greatest magnitude of impact in relation to this impact</p> <p>The greatest magnitude of impact for foundation installation results from the largest seabed area being directly impacted by the installation of infrastructure or the preparation of the seabed prior to installation. Project Option 1 has a higher total area of direct physical impact than Project Option 2 (974,179m² more area of impacted seabed) and presents the option with the greatest magnitude of impact.</p>

Potential impact	Project Option 1 (49 WTG)	Project Option 2 (35 WTG)	Rationale for the project option with the greatest magnitude of impact
	<p>Subtidal HDD</p> <p>Total footprint of disturbance (exit pits, transition zone, temporary sidecast/ deposited material & JUV footprint) = 4,156m².</p>	<p>Subtidal HDD</p> <p>Total footprint of disturbance (exit pits, transition zone, temporary sidecast/ deposited material & JUV footprint) = 4,156m².</p>	
2. Indirect physical disturbance of known and potential offshore archaeology and cultural heritage receptors	<p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to seabed preparation and installation activities for WTG and OSP foundations, and associated scour protection leading to changes in seabed levels.</p> <p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to seabed preparation and installation activities for inter array and export cables, and associated scour protection leading to changes in seabed levels.</p> <p>Further detail is provided Chapter 10: Marine Geology, Oceanography and Physical Processes and Chapter 12: Benthic Subtidal and Intertidal Ecology.</p>	<p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to seabed preparation and installation activities for WTG and OSP foundations, and associated scour protection leading to changes in seabed levels.</p> <p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to seabed preparation and installation activities for inter array and export cables, and associated scour protection leading to changes in seabed levels.</p> <p>Further detail is provided in Chapter 10: Marine Geology, Oceanography and Physical Processes and Chapter 12: Benthic Subtidal and Intertidal Ecology.</p>	<p>Project Option 1 represents the greatest magnitude of impact in relation to this impact.</p> <p>The greatest magnitude of impact is likely to come from changes to hydrographic and sedimentary regimes where there is the largest area of seabed disturbance.</p> <p>Project Option 1 has a higher total area of disturbed sediment than Project Option 2 and presents the option with the greatest magnitude of impact.</p>
Operation			
3. Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors	<p>Total area of direct physical impact: 659,734m².</p> <p>Array area</p> <p>Major WTG component repair/replacement = 646,540m².</p> <p>Major OSP component replacement = 13,195m².</p> <p>Inter array cable reburial, repair and/or replacement of cabling = occurring within footprint of cable corridor already impacted by Construction phase.</p> <p>ECC</p> <p>Export Cable reburial, repair and/or replacement of cabling = occurring within footprint of cable corridor already impacted by Construction phase.</p>	<p>Total area of direct physical impact: 475,009m².</p> <p>Array area</p> <p>Major WTG component repair/replacement = 461,814m².</p> <p>Major OSP component replacement = 13,195m².</p> <p>Inter array cable reburial, repair and/or replacement of cabling = occurring within footprint of cable corridor already impacted by Construction phase.</p> <p>ECC</p> <p>Export Cable reburial, repair and/or replacement of cabling = occurring within footprint of cable corridor already impacted by Construction phase.</p>	<p>Project Option 1 represents the greatest magnitude of impact in relation to this impact.</p> <p>The greatest magnitude of impact is likely to come from the impact of anchoring across the widest area of seabed disturbance.</p> <p>Project Option 1 has a higher total area than Project Option 2 (184,725m² more area of impacted seabed) and presents the option with the greatest magnitude of impact.</p>

Potential impact	Project Option 1 (49 WTG)	Project Option 2 (35 WTG)	Rationale for the project option with the greatest magnitude of impact
4. Indirect physical disturbance of known and potential offshore archaeology and cultural heritage receptors	<p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to presence of WTG and OSP structures on seabed leading to changes in seabed level.</p> <p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to repair/replacement of inter array/export cabling and associated cable protection leading to changes in seabed level.</p> <p>Further detail on hydrodynamic and sedimentary impacts is provided in Chapter 10: Marine Oceanography and Physical Processes and Chapter 12.</p>	<p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to presence of WTG and OSP structures on seabed leading to changes in seabed level.</p> <p>Indirect disturbance caused by changes to the hydrodynamic and sedimentary regimes due to repair/replacement of inter array/export cabling and associated cable protection leading to changes in seabed level.</p> <p>Further detail on hydrodynamic and sedimentary impacts is provided in Chapter 10 and Chapter 12.</p>	<p>Project Option 1 represents the greatest magnitude of impact in relation to this impact.</p> <p>The greatest magnitude of impact is likely to come from changes to hydrographic and sedimentary regimes where there is the largest area of seabed disturbance.</p> <p>Project Option 1 has a higher total area than Project Option 2 and presents the option with the greatest magnitude of impact.</p>
Decommissioning			
5. Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors	The activities, sub-activities and potential impacts are as per the construction phase.	The activities, sub-activities and potential impacts are as per the construction phase.	N/A

18.5 Potential Effects

There are no changes to this section. Refer to 18.5 of Chapter 18 of the 2024 EIAR.

18.5.1 Do-Nothing Scenario

There are no changes to this section. Refer to 18.5.1 of Chapter 18 of the 2024 EIAR.

18.5.2 Construction Phase

There are no changes to the introductory text of this section. Refer to Section 18.5.2 of Chapter 18 of the 2024 EIAR.

18.5.2.1 *Impact 1: Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors*

The change from monopiles and jackets with pin pile foundations to jackets with suction bucket foundations for WTGs, and jackets with suction buckets or drilled pin piles for the OSP has necessitated changes to this section. Seabed profiling via dredging to create a level platform for foundation installation will not be required. Seabed preparation will be carried out in advance of foundation construction and cable laying, as required. This would remove any boulders, obstructions or seabed debris that would impact the construction works. Therefore, for the purpose of clarity, the following text from Section 18.5.2.1 of Chapter 18 of the 2024 EIAR shall be deleted:

- Pre-construction seabed preparation works (e.g. grapnel runs, save wave and/or boulder clearance);

Magnitude of impact

As a result of the design refinements, the following paragraph shall be deleted:

“Impacts on known and potential seabed prehistory receptors, such as potential in situ prehistoric sites and submerged landscape features, could result in major effects, and these are considered as high value assets. For the array area, WTG foundation installation depths are anticipated to be down to 50m for monopiles and 60m for jackets (see Table 6.4 in the Offshore Description Chapter), whilst for cable burial for the inter-array cables and along the ECC this is anticipated to be 1m -3m (see Table 6.4 in the Offshore Description Chapter). Therefore, should potential seabed prehistoric features be impacted the footprint will vary between the array area and ECC. Taking a precautionary approach, it is necessary to assume the magnitude of impacts would be high”.

And be replaced with:

Impacts on known and potential seabed prehistory receptors, such as potential in situ prehistoric sites and submerged landscape features, could result in major effects, and these are considered as high value assets. For the array area, WTG foundation installation depths are anticipated to be down to 30m for the suction bucket foundations for the jackets (see Table 6.4 in the Chapter 6), whilst for cable burial for the inter-array cables and along the ECC this is anticipated to be 1m -3m (see Table 6.4 in the Chapter 6). Therefore, should potential seabed prehistoric features be impacted the footprint will vary between the array area and ECC. Taking a precautionary approach, it is necessary to assume the magnitude of impacts would be high.

There are no other changes to this section. Refer to 18.5.2.1 of Chapter 18 of the 2024 EIAR. Therefore, the significance of effect on offshore archaeology and cultural heritage receptors remains profound, which is significant in EIA terms. The significance of effect on known and potential intertidal archaeology receptors remains not significant which is not significant in EIA terms.

18.5.2.2 *Impact 2: Indirect physical disturbance of known and potential offshore archaeology and cultural heritage receptors*

There are no changes to this section. Refer to 18.5.2.2 of Chapter 18 of the 2024 EIAR. Therefore, the significance of effect on offshore archaeology and cultural heritage receptors remains imperceptible which is not significant in EIA terms.

18.5.3 Operational Phase

There are no changes to the introductory text of this section. Refer to Section 18.5.3 of Chapter 18 of the 2024 EIAR.

18.5.3.1 Impact 3: Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors

There are no changes to this section. Refer to 18.5.3.1 of Chapter 18 of the 2024 EIAR. Therefore, the significance of effect on offshore archaeology and cultural heritage receptors remains profound, which is significant in EIA terms.

18.5.3.2 Impact 4: Indirect physical disturbance of known and potential offshore archaeology and cultural heritage receptors

There are no changes to this section. Refer to 18.5.3.2 of Chapter 18 of the 2024 EIAR. Therefore, the significance of effect on offshore archaeology and cultural heritage receptors remains imperceptible which is not significant in EIA terms.

18.5.4 Decommissioning

There are no changes to the introductory text of this section. Refer to Section 18.5.4 of Chapter 18 of the 2024 EIAR.

18.5.4.1 Impact 5: Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors

There are no changes to this section. Refer to 18.5.4.1 of Chapter 18 of the 2024 EIAR. Therefore, the significance of effect on offshore archaeology and cultural heritage receptors remains imperceptible which is not significant in EIA terms.

18.6 Mitigation and Monitoring Measures

The change required to this section is the addition of a Marine Archaeology Management Plan (MAMP) as a result of consultation with National Monuments Service (NMS) in March 2026 (see to Appendix A18.3 Marine Archaeology Management Plan). Therefore, the following sentence shall be deleted:

“These measures will be set out in the EIAR Schedule of Environmental Commitments (see Volume 8, Appendix 6.1: Offshore Environmental Management Plan (EMP); hereafter the Offshore EMP).”

And replaced with:

These measures will be set out in a project-specific Marine Archaeology Management Plan (MAMP) that forms part of the EIAR Schedule of Environmental Commitments (see Appendix A6.1: Offshore Environmental Management Plan (EMP); hereafter the Offshore EMP).

There are no other changes to this section. Refer to 18.6 of Chapter 18 of the 2024 EIAR.

18.6.1 Archaeological Exclusion Zones

The key change to this section is the addition of more recent data and reports that have become available since submission of the 2024 EIAR. The new information has been reviewed and included to ensure the impact assessment is informed by the most current and up-to-date data, satisfying RFI Section 1 (b) and 14 (a). Therefore, the following text shall be added and Table 18.17 of Chapter 18 of the 2024 EIAR shall be deleted and replaced by Table A18.5. Figure 18.5 of Chapter 18 of the 2024 EIAR shall be deleted and replaced by Figure A18.3.

The updated AEZs around receptors within the intertidal and nearshore area of the ECC replace an earlier, more extensive precautionary AEZ of 230m around WA7000, based on the updated geophysical survey data and archaeological assessment (ADCO, 2023b; 2024).

Table A18.5: AEZs within the offshore development area (replaces Table 18.17 of Chapter 18 of the 2024 EIAR)

Site ID	Description	UTM30N Easting	UTM30N Northing	Recommended AEZ buffer
WA7000	High value, potential for impact	289332	5946816	100m, clipped to MHW and overlapping AEZs
ADCO 03	High value, potential for impact	286121	5901164	100m, clipped to MHW and overlapping AEZs
ADCO 07	High value, potential for impact	289361	5946778	100m, clipped to MHW and overlapping AEZs
M 0142	High value, potential for impact	289385	5946700	150m, clipped to MHW and overlapping AEZs
WA7001	High value, potential for impact	289796	5946725	100m
WA7002	High value, potential for impact	297073	5949027	100m
WA7003	High value, no potential for impact	297403	5947223	None: outside the ECC boundary by c.450m
WA7004	High value, no potential for impact	297387	5947239	None: outside the ECC boundary by c.450m
WA7005	High value, no potential for impact	298783	5947415	None: outside the ECC boundary by c.450m
WA7006	High value, potential for impact	299034	5948785	100m
WA7007	High value, potential for impact	302666	5951085	100m
WA7008	High value, potential for impact	303126	5951304	100m
WA7009	High value, potential for impact	311154	5944559	100m
WA7010	High value, potential for impact	299052	5948791	None, covered by AEZ for WA7006
WA7011	High value, potential for impact	299029	5948771	None, covered by AEZ for WA7006
WA7012	High value, potential for impact	302665	5951077	None, covered by AEZ for WA7007
WA7013	High value, potential for impact	303061	5951326	100m

There are no other changes to this section. Refer to 18.6.1 of Chapter 18 of the 2024 EIAR.

18.7 Residual Effects

The change required to this section is the addition of a MAMP as a result of consultation with NMS in March 2026 (see Appendix A18.3 Marine Archaeology Management Plan). Therefore Table 18.18 of Chapter 18 of the 2024 EIAR shall be deleted and replaced with Table A18.6

Table A18.6: Residual effects relating to offshore archaeology and cultural heritage (replaces Table 18.18 of Chapter 18 of the 2024 EIAR)

Potential Impact	Likely significant effect (pre-mitigation) – Project Option 1	Likely significant effect (pre-mitigation) – Project Option 2	Residual Effect – Project Option 1	Residual Effect – Project Option 2
Construction				
1. Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors	Profound	Profound	Not significant after the following mitigation: implementation of MAMP setting out mitigation strategies including archaeological review of additional pre-construction geophysical and geotechnical datasets, implementation of archaeological exclusion zones (AEZs) and use of protocols for archaeological discoveries (PAD)	Not significant after the following mitigation: implementation of MAMP setting out mitigation strategies including archaeological review of additional pre-construction geophysical and geotechnical datasets, implementation of AEZs and use of PAD
2. Indirect physical disturbance of known and potential offshore archaeology and cultural heritage receptors	Imperceptible	Imperceptible	Based on the predicted level of effect it is concluded that no additional mitigation is required. A PAD will be in effect, providing a route for reporting and managing unexpected archaeological discoveries. The residual effect will remain to be imperceptible	Based on the predicted level of effect it is concluded that no additional mitigation is required. A PAD will be in effect, providing a route for reporting and managing unexpected archaeological discoveries. The residual effect will remain to be imperceptible
Operation				
3. Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors	Profound	Profound	Not significant after the following mitigation: implementation of MAMP including AEZs and use of PAD	Not significant after the following mitigation: implementation of MAMP including AEZs and use of PAD
4. Indirect physical disturbance of known and potential offshore archaeology and cultural heritage receptors	Imperceptible	Imperceptible	Based on the predicted level of effect it is concluded that no additional mitigation is required. A PAD will be in effect, providing a route for reporting and managing unexpected archaeological discoveries. The residual effect will remain to be imperceptible	Based on the predicted level of effect it is concluded that no additional mitigation is required. A PAD will be in effect, providing a route for reporting and managing unexpected archaeological discoveries. The residual effect will remain to be imperceptible

Potential Impact	Likely significant effect (pre-mitigation) – Project Option 1	Likely significant effect (pre-mitigation) – Project Option 2	Residual Effect – Project Option 1	Residual Effect – Project Option 2
Decommissioning				
5. Direct physical disturbance of known and potential offshore archaeology and cultural heritage receptors	Not significant	Not significant	Residual effect will remain not significant after the implementation of AEZs and use of PAD	Residual effect will remain not significant after the implementation of AEZs and use of PAD

There are no other changes to this section. Refer to 18.7 of Chapter 18 of the 2024 EIAR.

18.8 Transboundary Effects

There are no changes to this section. Refer to 18.8 of Chapter 18 of the 2024 EIAR. No direct or significant indirect effects on offshore archaeology and cultural heritage have been identified, and therefore no transboundary impacts are expected beyond the offshore development area in Irish waters.

18.9 Cumulative Effects

The key changes to this section are the updating of text to reflect the minor change in cumulative assessment methodology to follow the Nationally Significant Infrastructure Projects (NSIP) (2024) guidance as per RFI Section 5.

The second paragraph shall be deleted:

“The Cumulative and Inter-Related Effects Chapter contains the outcome of Stage 1 Establishing the list of ‘Other Existing and/or Approved Projects’; and Stage 2 ‘Screening of ‘Other Existing and/or Approved Projects’’. This section presents Stage 3, an assessment of whether the proposed development in combination with other projects, grouped in tiers, would be likely to have significant cumulative effects.”

And be replaced with:

Chapter 38: Cumulative and Inter-Related Effects contains the outcome of Stage 1 Establishing the list of ‘Other Existing and/or Approved Projects’; Stage 2 ‘Screening of ‘Other Existing and/or Approved Projects’; and provides the CEA conclusions in the NSIP Appendix 2: Matrix 1 – Assessment matrix. This section presents the full Stage 3 assessment, which assesses the proposed development in combination with other projects, grouped in tiers, to determine whether significant cumulative effects are likely.

The fifth and sixth paragraph should be deleted:

“Given the location and nature of the proposed development, a tiered approach to establishing the list of other existing and/or approved projects has been undertaken in Stage 1 of the cumulative effects assessment. The tiering of projects is based on project relevance to the proposed development and it is not a hierarchical approach nor based on weighting. Further information on the tiers is provided in Section 11.10 and in the Cumulative and Inter-Related Effects Chapter.

The tiering structure is intended to provide an understanding of the potential for likely significant effects of the proposed development with the construction of its Operation and Maintenance Facility (OMF) (tier one); followed by a cumulative assessment of the likely significant effect of that scenario combined with the east coast Phase One OWFs (tier two); and lastly the combination of tier one and tier two with all other existing and/or approved projects that have been screened in (tier three).”

And be replaced with:

Given the location and nature of the proposed development, a tiered approach to establishing the list of other existing and/or approved projects has been undertaken in Stage 1 of the cumulative effects assessment. The tiering of projects is based on the NSIP 2024 guidance. Further information on the tiers is provided in Section 18.9.2 and in Chapter 38.

The tiering structure is intended to provide an understanding of the potential for likely significant effects of the proposed development with the construction of all existing and submitted projects (tier one); followed by a cumulative assessment of the likely significant effect of that scenario combined with all projects that have a scoping report or Maritime Area Consent (MAC) (tier two); and lastly the combination of tier one and tier two with all other projects including existing and/or developments that have been identified in the relevant Development Plans and other plans and programmes as appropriate (tier three).

There are no other changes required to this section. Refer to Section 18.9 of Chapter 18 of the 2024 EIA.

18.9.1 Offshore Archaeology and Cultural Heritage Cumulative Screening Exercise

There are no changes to this section. Refer to Section 18.9.1 of Chapter 18 of the 2024 EIA.

18.9.2 Projects Considered Within the CEA

The key change to this section is the updating of text to reflect the minor change in cumulative assessment methodology to follow the NSIP 2024 guidance, as per RFI Section 5.

The entire section shall be deleted and replaced with:

The planned, existing and/or approved projects selected through the screening exercise as potentially relevant to the assessment of impacts to offshore archaeology and cultural heritage are presented in Table A18.7. The tiers for the assessment are:

- Tier 1 is all existing submitted and approved projects (not yet in operation/part of baseline), including the OMF option being considered which involves the adaption and leasing part of an existing port facility at Greenore (further detail is provided in Chapter 6) and the East Coast Phase One Projects.
- Tier 2 is all projects that have scoping reports or have a MAC.
- Tier 3 is all other projects include existing and/or approved developments that have been identified in the relevant Development Plans and other plans and programmes as appropriate.

The tiering structure is intended to provide an understanding of the potential for likely significant effects of the proposed development with the construction tier one projects; followed by a cumulative assessment of the likely significant effect of that scenario combined with tier two projects; and lastly the combination of tier one and tier two with all other projects including existing and/or developments that have been identified in the relevant Development Plans and other plans and programme as appropriate (tier three).

Table A18.7 Projects and plans considered within the cumulative impact assessment (replaces Table 18.19 of Chapter 18 of the 2024 EIAR)

Development Type	Project	Status	Data Confidence	Distance to the proposed development		Justification for screening into the assessment
				Array area	ECC	
Tier 1						
Phase One Offshore Wind Farm (OWF)	Oriel Wind Park					The Phase One OWFs are not screened into the offshore archaeology and cultural heritage assessment as the proposed works are at a sufficient distance (beyond 10km screening range) and therefore will not have a physical effect-receptor overlap with the proposed development.
	Dublin Array					
	Codling Wind Park and Codling Wind Park Extension					
	Arklow Bank Phase 2					
Tier 2						
Projects with scoping report or MAC	In Stage 2: Screening, there were no projects identified with the potential for interaction between effects with the proposed development.					
Tier 3						
All other projects include existing and/or approved developments that have been identified in the relevant Development Plans and other plans and programmes as appropriate	In Stage 2: Screening, there were no projects identified with the potential for interaction between effects with the proposed development.					

There are no other changes required to this section. Refer to Section 18.9.2 of Chapter 18 of the 2024 EIAR.

18.9.3 Project impacts included in the assessment

The updated cumulative effects assessment has been undertaken in response to RFI Section 5. To clarify, for cultural heritage and offshore archaeology, the screening process eliminated all other projects from the cumulative effects assessment (Table A18.8). This assumes that there is no potential for cumulative effects on marine cultural heritage receptors as a result of the proposed developments implemented mitigation measures (Section 18.4.5 and Section 18.6) (that will result in no significant residual effects); and the absence of physical effect-receptor overlap with other screened in projects.

There is no change to this section. Refer to Section 18.9.3 in Chapter 18 of the 2024 EIAR.

18.10 References

The following references are deleted from Section 18.10 of Chapter 18 of the 2024 EIAR.

“CIfA (2014, updated 2017). Standard and Guidance for Historic Environment Desk-based Assessment (Chartered Institute for Archaeologists (Second Edition). CIfA, Reading

English Heritage (now Historic England) (2013). Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes. English Heritage, Swindon.”

The following references are additional to those listed in Section 18.10 of Chapter 18 of the 2024 EIAR.

ADCO (2024). North Irish Sea Array Marine Geophysical Survey Nearshore and intertidal archaeological interpretation 23D0104, 23R0459. Unpublished Client Report, Bray.

ADCO (2026). North Irish Sea Array Marine Geophysical Survey 2024 Archaeological Interpretation 24D0246, 24R0392. Unpublished Client Report, Bray.

CIfA (2020) Standard and Guidance for Historic Environment Desk-based Assessment (Chartered Institute for Archaeologists. CIfA, Reading.

Historic England (2025). Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes (Second Edition). Historic England, Swindon.

SEP Hydrographic (2023) North Irish Sea Array (NISA) Nearshore and Intertidal Geophysical Survey Operations & Results Report. Report Ref. 2023-031. Unpublished Client Report, Skelmersdale.

TGS (2025) NISA UHR3D Integrated Sensor Interpretation. Unpublished Client Report, Asker.

Wessex Archaeology (2008) Aircraft Crash Sites at Sea: A scoping study. Unpublished report ref. 666410.02, Salisbury.