Iarnród Éireann
Irish Rail

Rosslare ORE Hub

EIAR Environmental Topic Chapters

Chapter 16:

Cultural Heritage

venterra | GDG GAVIN & DOHERTY GEOSOLUTIONS | NICHOLAS O'DWYER an RSK company

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LIST OF ABBREVIATIONS

ADCL	Archaeological Diving Company Ltd
AMP	Archaeology Management Plan
CIA	Cumulative Impact Assessment
CPT	Cone Penetration Test
DAHGI	Department of Arts, Heritage, Gaeltacht and the Islands
DHLGH	Department of Housing, Local Government and Heritage
DMAP	Designated Maritime Area Plans
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EPA	Environmental Protection Agency
GI	Geotechnical Investigations
HSI	Historic Shipwreck Inventory
ICMS	International Council on Monuments and Sites
IEMA	Institute of Environmental Management and Assessment
ITM	Irish Transverse Mercator
NIAH	National Inventory of Architectural Heritage
NMS	National Monuments Service
ORE	Offshore Renewable Energy
PDB	Proposed Development Boundary
REAR	Rosslare Europort Access Road
RPS	Record of Protected Structures
RoRo	Roll-on Roll-off
SMR	Sites and Monuments Record
UAU	Underwater Archaeology Unit
ZoI	Zone of Influence

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16 CULTURAL HERITAGE

16.1 INTRODUCTION

Iarnród Éireann – Irish Rail is applying for development permission for the Rosslare Offshore Renewable Energy Hub (hereafter the 'Proposed Development'), located immediately adjacent and to the northwest of the existing Rosslare Europort at Rosslare Harbour in County Wexford, which is operated by Iarnród Éireann. The Proposed Development includes capital dredging to achieve navigable depths for vessels delivering ORE components; land reclamation to create a storage area for these components; and construction of two new berths to facilitate loading and unloading of ORE components. The land reclamation works include infilling the existing small boat harbour, after the construction of a new small boat harbour. The Proposed Development also includes the installation of a new slipway and facility for local clubs, such as the Sea Scouts.

The purpose of the Proposed Development is to provide a facility for the efficient handling and storage, marshalling, staging and integration of ORE components to facilitate installation of offshore wind energy projects by ORE developers and operators. The Proposed Development is designed to provide facilities that accommodate a wide range of infrastructure uses, both for current requirements and anticipated future needs. For instance, the Proposed Development could be used for traditional port activities if required, including during periods of reduced ORE-related activity. Refer to EIAR Chapter 6: Project Description for further detail.

This chapter of the Environmental Impact Assessment (EIA) Report presents the assessment of the likely significant effects (as per the "EIA Regulations") of the Proposed Development on Cultural Heritage arising from the construction and operation of the Proposed Development, both alone and cumulatively with other projects. Cultural Heritage may be defined as the tangible and intangible assets of society inherited from past generations and includes archaeology, built heritage both industrial and architectural, and in the case of this project, terrestrial and marine.

This chapter was informed by the Proposed Development EIA Scoping Report (21285-R-005-02-Rosslare OWS EIASR), which was issued to the following topic-relevant stakeholders:

- Department of Housing and Local Government; National Monuments Service (Underwater Archaeology Unit)

The assessment presented in this chapter has been informed by Chapter 6: Project Description, and by the reports in these Technical Appendices:

- Technical Appendix 7: Geotechnical Interpretative Report Rosslare Europort ORE Hub (GDG 2024)
- Technical Appendix 16: Archaeological Technical Reports: Archaeological Desktop Assessment (DCO, 07/07/2023)
    - Archaeology Management Plan in the event of the discovery of archaeological material during marine geophysical survey Toolbox Talk Boreholes 2023 Toolbox Talk Rosslare Europort OREH Boreholes 2023 (ADCO, 2023)

- Rosslare Europort OREH Underwater Archaeological Impact Assessment GI Campaign 2023, position review 01/12/2023 (ADCO, 01/01/2023)
- Rosslare Europort OREH, Marine Geophysical Survey Archaeological Interpretation, 23D0102; 23R0405 (ADCO, 29/11/2023).

This chapter provides a summary of topic-relevant guidance and outlines the data sources used to characterise the Cultural Heritage Study Area. Building on the general EIA methodology outlined in Chapter 1: Introduction and Methodology, the methodology followed in assessing the impacts of the Proposed Development on Cultural Heritage receptors is set out, as is the assessment of likely effects on the Cultural Heritage receptors arising from the construction and operation of the Proposed Development. Relevant mitigation measures, following the 'mitigation hierarchy' of avoidance, minimisation, restoration and offsets, and/or monitoring requirements, are proposed in respect of any significant effects and a summary of residual impacts is provided, where relevant.

16.1.1 RELEVANT LEGISLATION AND GUIDELINES

The principal legislative, guidance and policy context that operates across the land and marine environment in Ireland relevant to cultural heritage are set out in Table 16.1 and Table 16.2.

16.1.1.1 LEGISLATION

Reference is made to the national and international legislation set out in Table 16.1.

Table 16.1: Legislation relevant to Cultural Heritage

Legislation	Reference	Geographic Coverage
The National Monuments Act 1930-2004	Govt. of Ireland, 1930 - 2004	Ireland, Republic of
Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023	Govt. of Ireland, 2023	Ireland, Republic of
Planning and Development Act 2000, As Amended	Govt. of Ireland, 2000-present	Ireland, Republic of
Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) ,1999 as amended	Govt. of Ireland, 1999	Ireland, Republic of
Marine Area Planning Act 2021	Govt. of Ireland, 2021	Ireland, Republic of
S.I. No. 528/2020 - European Union (Environmental Impact Assessment) (National Monuments Act 1930) (Section 14D) (Amendment) Regulations 2020	Govt. of Ireland, 2020	Ireland, Republic of
S.I. No. 249/2012 - European Union (Environmental Impact Assessment of Proposed Demolition of National Monuments) Regulations 2012	Govt. of Ireland, 2012	Ireland, Republic of
Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private	EU, 2011	Europe, European Union

Legislation	Reference	Geographic Coverage
projects on the environment (codification) Text with EEA relevance		
The Foreshore Act 1933 and 2014	Govt. of Ireland, 1933 updated 2014	Ireland, Republic of
Heritage Act, 1995	Govt. of Ireland, 1995	Ireland, Republic of
Merchant Shipping (Salvage and Wreck) Act, 1993	Govt. of Ireland, 1993	Ireland, Republic of

16.1.1.2 GUIDANCE

The relevant Irish and international guidelines are set out in Table 16.2.

Table 16.2: Policy and guidance documents relevant to Cultural Heritage (including Archaeological, Industrial and Architectural)

Policy / Guidance	Reference	Geographic Coverage
Archaeology and Flood Relief Schemes: Guidelines. 2 volumes	Govt. of Ireland, 2023	Ireland, Republic of
Architectural Heritage Protection Guidelines for Planning Authorities (2011)	Govt. of Ireland, 2011	Ireland, Republic of
European Convention on the Protection of the Archaeological Heritage (Valetta Convention)	EU, 1992	EU
The Convention for the Protection of the Architectural Heritage (the Grenada Convention)	EU, 1985	EU
Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI) Framework and Principles for the Protection of the Archaeological Heritage	DAHGI, 1999a	Ireland, Republic of
DAHGI Policy and Guidelines on Archaeological Excavation	DAHGI, 1999b	Ireland, Republic of
International Council on Monuments and Sites (ICOMOS) guidance, non-governmental international organisation dedicated to the conservation of the world's monuments and sites – several charters and related reference texts	ICOMOS, 2011	Global

16.2 ASSESSMENT METHODOLOGY

The Cultural Heritage assessment is based on a desktop review of known baseline information; marine geophysical survey data review acquired for the current project in 2023 under licences 23D0102 and 23R0407 granted by the Department of Housing, Local Government and Heritage (DHLGH); marine geotechnical investigations data review of data acquired for the current project in

2023; an archaeological site inspection completed on 16th June 2023, and an archaeological underwater inspection carried out on 09th May 2025.

16.2.1 STATEMENT OF COMPETENCE

Chapter 16 has been prepared by Niall Brady, BA MA PhD FSA, director of the Archaeological Diving Company Ltd (ADCO). Niall Brady holds a BA in Archaeology and Geography (UCD 1983); an MA in Archaeology (UCD 1986); an MA in Medieval Studies (Cornell University 1994), and a PhD in Medieval Studies (Cornell University 1996). He is a Fellow of the Society of Antiquaries of London since 2006 and is an associate of Trinity College Dublin's Centre for Environmental History since 2019. Dr Brady has directed the Medieval Rural Settlement Project for the Discovery Programme, Ireland's centre for advanced archaeological research (2002-10) and sits on several international archaeological committees. With over 25 years of experience in marine archaeology, he is co-founding director of ADCO (1999-present) and is a HSE Part III Commercial Diver (certified 2000). He has carried out a wide range of archaeological assessments on land and under water and has been involved in the preparation of EIARs for the following projects:

- Corrib Onshore Pipeline 2010
- Dublin Port Company's Alexandra Basin Redevelopment Project, 2014
- Dublin Port Company's MP2 Project, 2020
- Dublin Port Company's 3FM Project EIAR (2024)
- Arklow Bank Wind Park 2 EIAR (2024)
- North Irish Sea Array Offshore Wind Farm (current)
- Oriel Offshore Wind Farm (current)
- Greenore Port Operations and Maintenance Facility EIAR (2024)
- Port of Waterford ORE EIAR (2024)

16.2.2 TOPIC-SPECIFIC CONSULTATION

The project team met with the Underwater Archaeology Unit (UAU) of the National Monuments Service of the DHLGH on 19 April 2023. This section summarises the main points discussed.

The project team presented the background to the project, and a discussion took place on the relevant chapters of EIA Scoping Report (namely 'Onshore Archaeology' and 'Marine Archaeology').

The UAU commented on the recently submitted Rosslare Europort Access Road (REAR) planning application (since granted by Wexford County Council) where a geophysical survey of the road had been carried out and identified several archaeological features.

The UAU noted that the potential for historic wrecks in the proposed dredge area is high, with up to fifty (50) known wrecks generally located around Rosslare Harbour according to the Historic Shipwreck Inventory (HSI). Eighteenth- and nineteenth- newspaper accounts are the primary source of information for the HSI, which includes recorded wrecking events since ca. 1750 AD and known

wreck site locations. (see EIAR Technical Appendix 16). Earlier wrecking events are generally not recorded.

The project team confirmed that ADCO are the project archaeologists, who are involved in the specification of surveys to target archaeological features.

The UAU noted that wrecks found during construction can be costly to development and outlined the typical process to be followed where a wreck or other archaeologically significant feature is found during construction (i.e., construction activities are stopped until the location is investigated archaeologically, which will include a dive survey if under water). Where a wreck is confirmed this may need to be preserved *in situ* with project infrastructure relocated. The UAU noted that it is important that archaeological assessment for wrecks is conducted to inform EIA.

The project team confirmed that the spatial footprint of the current harbour has been reclaimed from the sea and that the current reclamation area has not been dredged. The existing small boat harbour was dredged when established ca. 25 years ago.

The project team outlined proposed geotechnical site investigation works that consist of boreholes, Cone Penetration Tests (CPTs) and vibrocores to determine sediment parameters of ground.

The UAU confirmed the marine archaeology desktop assessment completed in 2023 to inform the project design for the Proposed Development and submitted as Technical Appendix 16 of this EIAR, is sufficient to inform the underwater archaeology risk assessment, and advised that the project archaeologist liaise with the geophysical survey provider to ensure surveys are fit for purpose [note: ADCO provided the surveyors with a 'toolbox talk' prior to the geophysical survey taking place, included in EIAR Technical Appendix 16: Archaeological Technical Reports].

16.2.3 STUDY AREA & ZONE OF INFLUENCE

The Study Area that has informed the evidence gathering for this chapter is the foreshore of the Proposed Development. In addition to the area within the Proposed Development Boundary (PDB), a 500m-wide buffer zone reaching inland and offshore from the PDB is considered a sufficient additional area within which to consider the immediate wider context of the project area and representative of the Zone of Influence of the project (Figure 16.1 and Figure 16.2).

16.2.4 DATA SOURCES

The principal data sources that have informed the characterisation of the baseline are:

- Cartographic Sources, including historical maps Ordnance Survey First Edition map (c. 1840), OS 25-inch map series (c. 1911), Third Edition map series (1936) and recent OS maps.
- Sites and Monuments Record and Built Heritage Sources - Historic Environment Viewer from National Monuments Service https://heritagedata.maps.arcgis.com/apps/webappviewer/index.html?id=0c9eb9575b544081b0d296436d8f60f8
- Archaeological Interventions, maintenance dredging projects (EIAR Technical Appendix 16: Archaeological Technical Reports – Rosslare Europort Archaeological Desktop Assessment 2024)
- Archaeological Walkover Inspection (EIAR Technical Appendix 16: Archaeological Technical Reports – Rosslare Europort Archaeological Desktop Assessment 2024)
- Marine Geophysical Survey Data and Results (EIAR Technical Appendix 7: Geotechnical Interpretative Report Rosslare Europort ORE Hub GDG 2024)
- Marine Geotechnical Investigations Results (EIAR Technical Appendix 7: Geotechnical Interpretative Report Rosslare Europort ORE Hub GDG 2024)
- Underwater Archaeological Inspection (EIAR Technical Appendix 16: Archaeological Technical Reports)

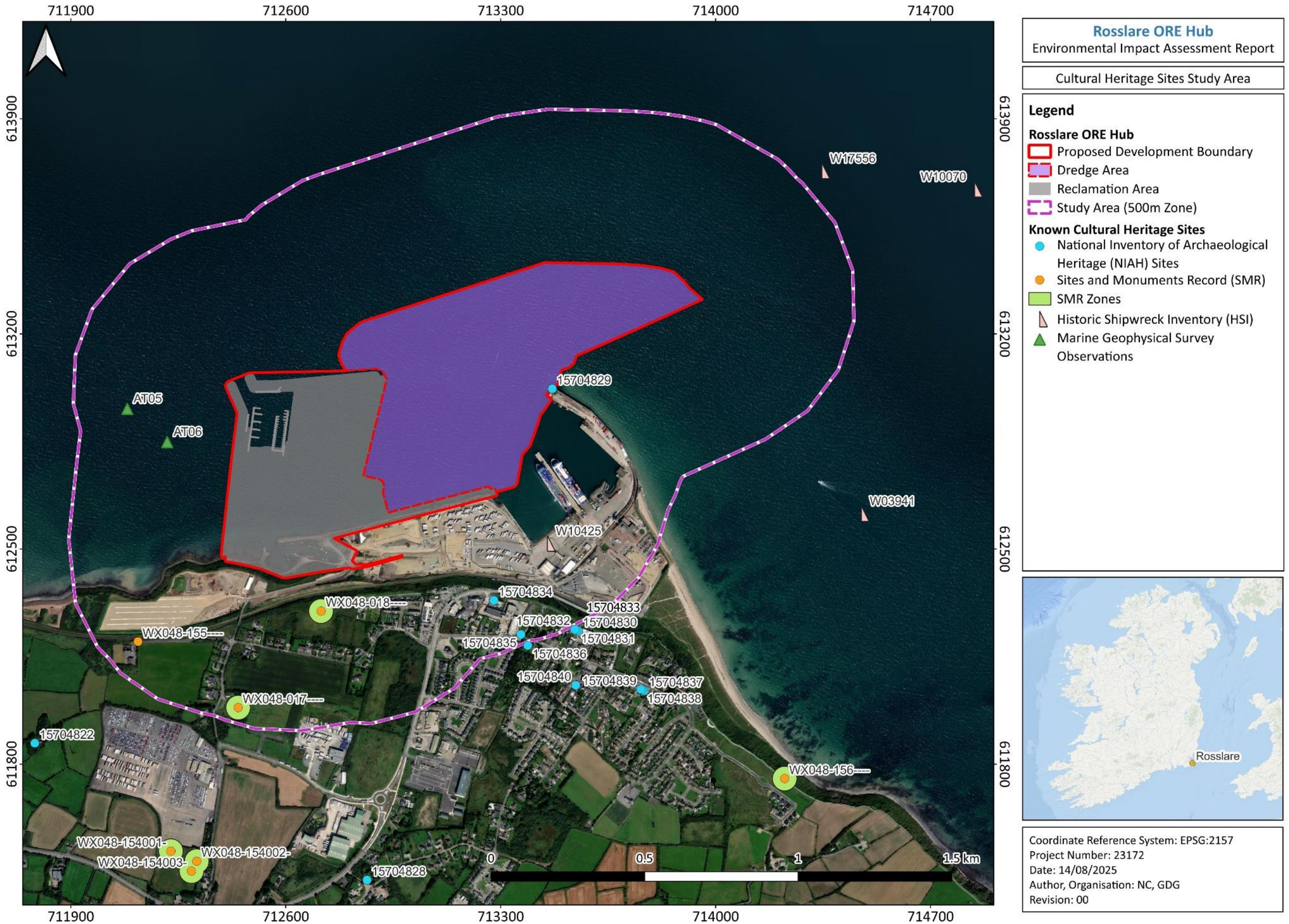


Figure 16.1: Study Area

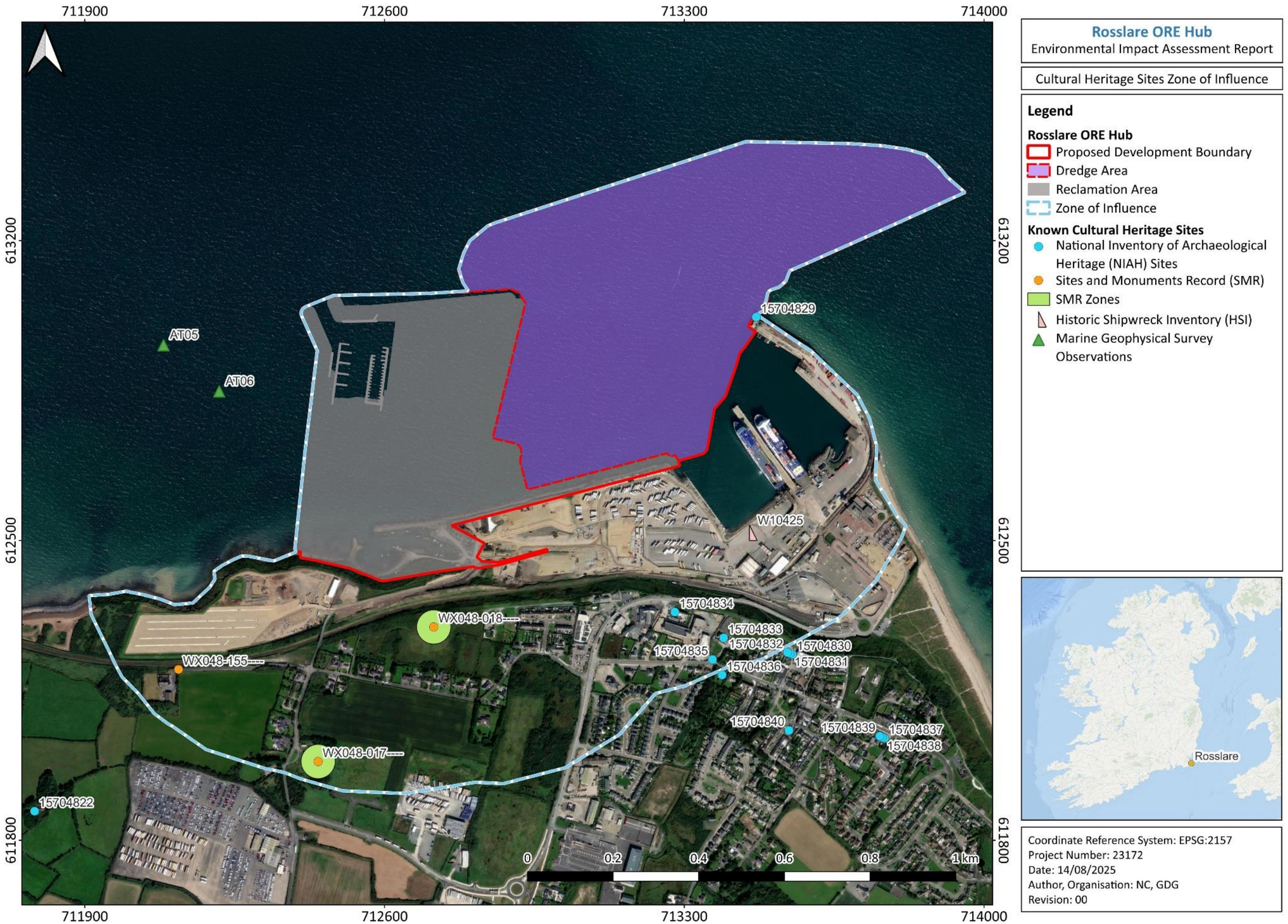


Figure 16.2: Zone of Influence, with known cultural heritage sites overlaid:

16.2.5 APPROACH TO ASSESSMENT OF EFFECTS

The assessment of likely significant effects of the Proposed Development on cultural heritage receptors has been undertaken having regard to the EPA Guidelines (EPA, 2022) and Transport Infrastructure Ireland Archaeological Heritage Guidelines (TII, 2005 & 2024).

Impact/effect categories (EPA, 2022 and TII, 2024) are described as direct and/or indirect impact or no predicted impact of the project on cultural heritage receptors. The significance of effects is directly related to the importance of each cultural heritage receptor. The importance of a cultural heritage receptor follows guidance where “Very high” includes National Monuments and designated features of international importance to “Low and Negligible” including built Heritage Receptors rated as being of local importance by the NIAH.

Predicting the significance of effects on a cultural heritage receptor includes an assessment of the magnitude of the impact, duration (temporary to permanent) and importance of the cultural heritage receptor. The predicted significance ranges from profound, significant, moderate, slight or imperceptible (EPA, 2022).

- **Profound** - An effect which obliterates a Cultural Heritage Receptor of high or very high importance.
- **Very Significant** - An effect which, by its character, magnitude, duration or intensity considerably alters most of an important aspect of the Cultural Heritage Receptor.
- **Significant** - An effect which, by its character, magnitude, duration or intensity alters an important aspect of the Cultural Heritage Receptor.
- **Moderate** - An effect that alters the character of the Cultural Heritage Receptor in a manner that is consistent with existing and emerging baseline trends.
- **Slight** - An effect which causes noticeable changes in the character of the Cultural Heritage Receptor without affecting its importance.
- **Not significant** - An effect which causes noticeable changes in the character of the Cultural Heritage Receptor but without significant consequences.
- **Imperceptible** - An effect capable of measurement but without significant consequences.

For the purposes of assessing the significance of effects on cultural heritage receptors in EIA terms:

- An effect is deemed to be 'not significant' in EIA terms when it is assigned a significance from Imperceptible to Moderate inclusive.
- An effect is deemed to be 'significant' in EIA terms when it is assigned a significance from Significant to Profound inclusive.

16.2.6 MITIGATION

As discussed in Chapter 1: Introduction and Methodology, three types of mitigation measures are considered in this chapter.

- Primary mitigation
- Secondary mitigation
- Tertiary mitigation

The assessment described above includes consideration of integrated measures that are built into the project design (i.e., primary mitigation) and tertiary mitigation, and which are intended to prevent, reduce and where possible offset any significant adverse effects on the environment.

Where potentially significant adverse effects have not been eliminated by project design, further mitigation measures (i.e., secondary mitigation) have been proposed.

For each significant effect identified, appropriate secondary mitigation measures are prescribed. Where no secondary mitigation measures are required (i.e., where a significant effect has not been identified), secondary mitigation may still be applied.

16.2.7 RESIDUAL EFFECTS

Where relevant, residual effects have been determined for each significant effect, considering all proposed mitigation.

In cases where residual uncertainty of impact is identified within the EIAR, or the success of implemented mitigation measures requires validation, commitments have been made for the provision of monitoring.

16.2.8 DIFFICULTIES AND UNCERTAINTIES

Cultural Heritage assessment has been carried out based on comprehensive desktop review of existing sources; an archaeological walkover inspection of the project area; marine geophysical survey and interpretation; marine geotechnical investigation and reporting; and underwater archaeological inspection, providing a fully robust and comprehensive examination of available information.

No difficulties were encountered. Regardless of the comprehensive archaeology investigations and surveys, there remains uncertainty with respect to any unrecorded archaeological features.

16.3 BASELINE: CULTURAL HERITAGE IN RECEIVING ENVIRONMENT

16.3.1 CARTOGRAPHIC SOURCES

The historic Ordnance Survey First Edition map series (ca. 1840) shows a natural shoreline of sand with some indication of rock (Figure 16.3). No constructed features were recorded at this time.

Figure 16.3: Extract from Ordnance Survey First Edition six-inch sheet WX048, showing the coastline at Rosslare in ca. 1840, with known terrestrial archaeological sites (red dots) and built heritage sites (blue dots) overlaid

The development of the shoreline at Rosslare is associated with the construction of a harbour at the end of the nineteenth century to facilitate steam ferry traffic between Ireland and the United Kingdom.

The Ordnance Survey 25-inch map series (ca. 1911) records Rosslare Pier (Figure 16.4). The open-ended nature of the pier head, and a note inserted along the line of the pier, indicate that the pier was still under construction. The map also records the steep slopes leading from high ground that overlooked the emerging rail line. Comparison with the First Edition map suggests that the slope was partly engineered, resulting in the formal division between the emerging settlement at the top of the slope and the new harbour area at the base. It also suggests that the shoreline was altered in places to accommodate the railway. Some level of reclamation can be anticipated to have been required. The construction of a Coastguard Station on the high ground, and the row of houses – Tuskar Dwellings – speaks to the formal development of the coastal settlement.

The integral nature of a railway connection to the pier head reflects the original association with the Great Western Railway, which was first developed in 1906.

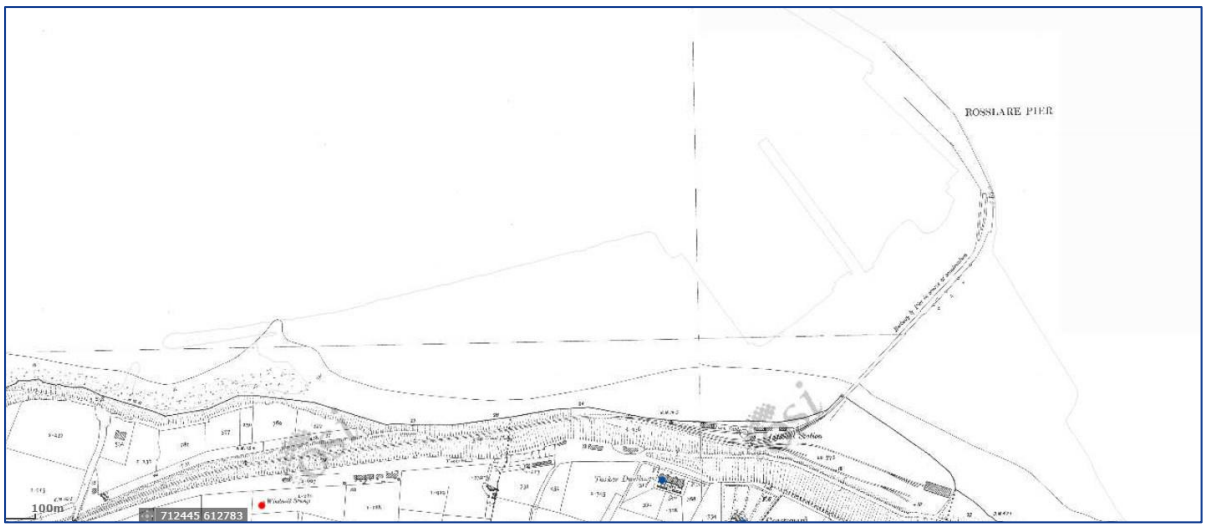


Figure 16.4: Extract from Ordnance Survey 25-inch sheet, showing the coastline at Rosslare in ca. 1911

The Ordnance Survey Third Edition map series (1936) shows the pier complete, with the pier head serving as the Harbour Station, complete with a lighthouse, train rails, a Goods Shed and mooring posts (Figure 16.5).

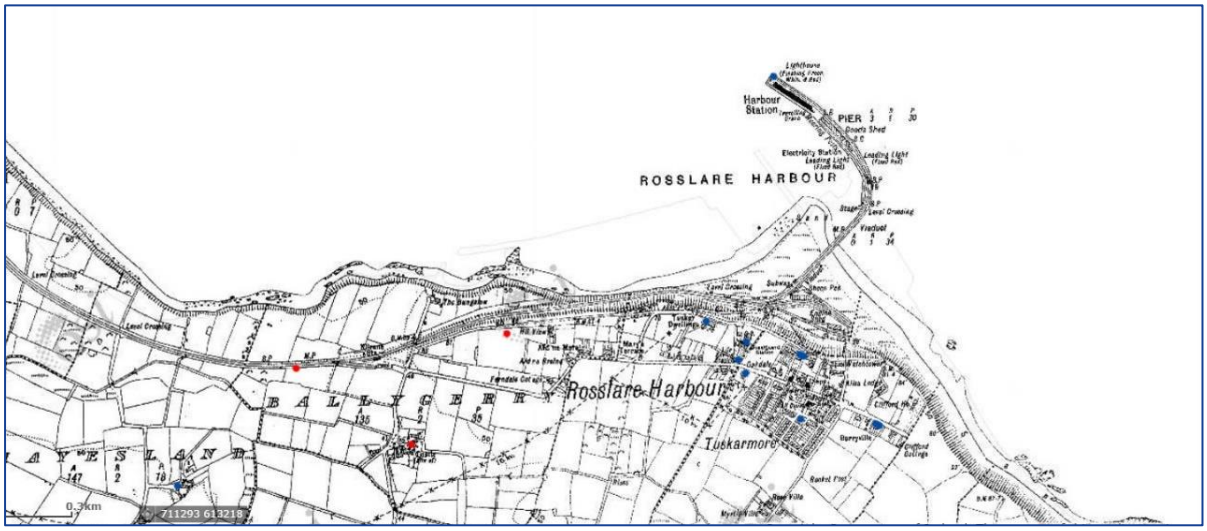


Figure 16.5: Extract from Ordnance Survey Third Edition six-inch sheet WX048, showing the coastline at Rosslare in ca. 1936 with known terrestrial archaeological sites (red dots) and built heritage sites (blue dots) overlaid

More recent reclamation in the 1980s to the west of the original harbour to facilitate RoRo storage has infilled much of the foreshore, where it is understood local fishermen would formerly pull their boats ashore onto the hard (Figure 16.6). The small boat harbour, Ballygeary Harbour, was constructed during this reclamation to provide a haven for local fishermen.

Figure 16.6: Extract from Ordnance Survey Ortho Imaging, showing the coastline at Rosslare in c. 2020 with known terrestrial archaeological sites (red dots) and built heritage sites (blue dots) overlaid

16.3.2 RECORDED SITES AND FEATURES

Six archaeological sites are recorded within the Study Area to the south of the port (Figure 16.1 and Figure 16.2). There are five recorded sites just outside the Study Area. Shipwreck sites are recorded in the HSI maintained by the National Monuments Service (NMS), and wrecks over 100 years of age are designated protected structures under the Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023. Terrestrial sites that are believed to date to before 1750 AD are recorded in the Sites and Monuments Record (SMR) maintained by the NMS and are also designated protected sites. Sites that are believed to date since 1750 AD are recorded in the National Inventory of Architectural Heritage (NIAH). Sites listed in the NIAH are not necessarily awarded protected status. Protected status for such sites is associated with the Planning and Development Act through the Wexford County Development Plan, which maintains a Record of Protected Structures (RPS) for the county. Two of the features are NIAH sites presented in Table 16.3 are protected sites.

Table 16.3: Known Cultural Heritage sites within and close to Study Area

Register	Reference	Site Type	Site Name	Within PDB	Distance from PDB
HSI	W10425	Shipwreck	Unknown	✗	220m SE
HSI	W17556	Shipwreck	*Success (Part of)*, fishing trawler lost in 1982	✗	570m NE
SMR	WX048-018	Archaeological site	Windmill	✗	110m S (within Study Area)
SMR	WX048-0155	Archaeological site	Excavation site	✗	400m SW

Register	Reference	Site Type	Site Name	Within PDB	Distance from PDB
					(within Study Area)
SMR	WX048-017	Archaeological site	17th-century House	×	450m S (within Study Area)
NIAH	15704829	Historic Structure	Lighthouse	✓	Within PDB
NIAH RPS	15704834 WCC1380	Historic Structure	Lighthouse Keeper's House	×	330m S (within Study Area)
NIAH RPS	15704833 WCC1381	Historic Structure	Coastguard Station	×	410m S (within Study Area)
NIAH	15704835	Historic Structure	Lifeboat Station	×	480m S (within Study Area)
NIAH	15704836	Historic Structure	Harbour House	×	540m S
NIAH	15704831	Historic Structure	House	×	520m S
NIAH	15704832	Historic Structure		×	520m S
NIAH	15704830	Historic Structure	House	×	530m S
NIAH	15704840	Historic Structure	Worker's House	×	530m S

HSI: Historic Shipwreck Inventory; **SMR**: Sites and Monuments Record; **NIAH**: National Inventory of Architectural Heritage; **RPS**: Record of Protected Structures

The archaeological sites in proximity to but outside the PDB comprise two historic shipwreck site locations and three terrestrial archaeological sites. Wreck site W10425 is an historic account of a shipwreck located outside and south of the PDB but there is little known about it. W17556 is located 570m east of the Study Area and is the site of the trawler *Success (Part of)*, which was lost following a collision event in 1982.

The site of a windmill (WX048-018) is 110m south of the PDB, and a seventeenth-century house (WX048-017) lies 450m south. A series of small pit features revealed by excavation (WX048-155) 400m southwest of the PDB highlights the potential for archaeological remains to survive inshore.

Historic buildings recorded in the NIAH located in the village to the south of the port and outside the PDB, chart the historic development of Lifeboat and Coastguard stations that were developed in the nineteenth century.

The only recorded cultural heritage site within the PDB is the lighthouse on the pier head (NIAH 15704829), which was commissioned in 1906 and built by the Fishguard and Rosslare Railways and

Harbours Company (NIAH 15704829). It is not on the county RPS. The lighthouse is described by the NIAH as a free-standing single-bay two-stage lighthouse, constructed on a circular plan that is set on a mass concrete block pier. It comprises a sheet iron-covered battered wall in an iron frame on a braced or buttressed plinth with cast-iron spandrels supporting a cantilevered walkway with cast-iron railings centred on a cone-topped lantern.

16.3.3 UNRECORDED SITES AND FEATURES

There are no known archaeological features in the area to the west of the Proposed Development. However, the potential for archaeology exists within its shallow sands. Research into early prehistoric activity around Ireland's coastline has yet to identify sub-tidal or intertidal archaeological sites in the Rosslare area (Westley & Woodman, 2020). The absence of recorded sites is not an indication of the absence of evidence but rather the absence of research and observations because the subject of intertidal and sub-tidal archaeology in Ireland is quite young and there is no national archaeological baseline survey of the shoreline completed. What is known comes from opportunities that have presented themselves. In the case of Rosslare, the shoreline as it existed in the nineteenth century is buried and reclaimed, and while it is known that fishermen used to pull their boats ashore, there is no formal record of the shoreline when it was exposed up to the 1980s.

16.3.4 ARCHAEOLOGICAL INTERVENTIONS

Maintenance dredging projects carried out by Iarnród Éireann along the approach channel into Rosslare have been archaeologically monitored in 2016 and 2021 by ADCO (archaeological licence numbers 16E0580 and 21E0066). The dredging extended around the pier head and into the harbour basin. No archaeologically significant material was observed, apart from a 6-inch rifle-loaded Palliser round that would have been shot from a muzzle-loaded gun. Such shells were carried on Iron-clad vessels of the Royal Navy during the late nineteenth century. The shell was not retained and was disposed of by the Irish Army's bomb squad.

16.3.5 WALKOVER INSPECTION

The following observations were recorded in a walkover inspection carried out on 16th June 2023:

- The rail line servicing the pier head remains in place but is abandoned (Figure 16.7).
- The land reclaimed for RoRo use has a rock-armoured shore (Figure 16.8).
- Ballygeary Harbour is constructed using embanked gravel and boulders, and employs stone-filled kishes to provide vertical faces when needed (Figure 16.9 to Figure 16.11).

Figure 16.7: View looking southwest along trainline that remains in situ if no longer in use

Figure 16.8: View looking east along shoreline from RoRo terminal towards pier head

Figure 16.9: View looking west into Ballygeary Harbour

Figure 16.10: View looking west at northern breakwater in Ballygeary Harbour

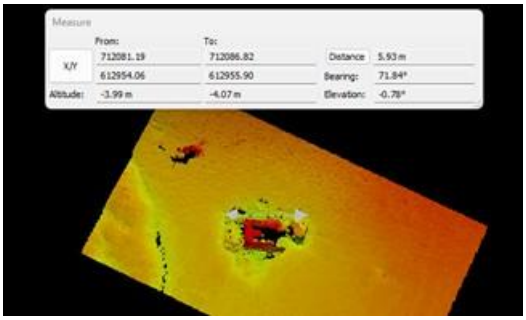
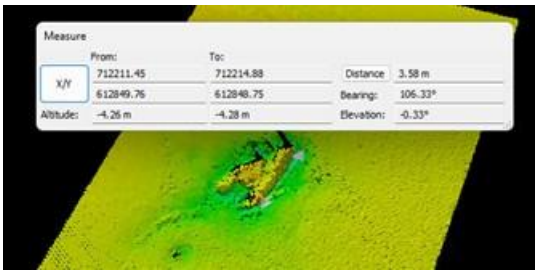
Figure 16.11: View looking east along northern breakwater in Ballygeary Harbour and across to the pier head in the distance

16.3.6 MARINE GEOPHYSICAL SURVEY 2023 AND 2024

Marine geophysical survey carried out under consents 23D0102 and 23R0407 conducted multibeam bathymetry, side scan sonar, magnetometry and sub-bottom profile survey (EIAR Technical Appendix 7: Geotechnical Interpretative Report Rosslare Europort ORE Hub GDG 2023). Archaeological review of the data gathered in 2024 noted various interpreted debris and boulder features across the surveyed area but did not record indications of submerged landscape or shipwreck sites in the data sets. This archaeological interpretation report is included in EIAR Technical Appendix 16.

An additional survey and post-processing of data were completed in 2024. Based on multibeam data, two possible wreck sites were identified close inshore along the western edge of the surveyed area but outside the PDB. Refer to EIAR Technical Appendix 7, as summarised in Table 16.4.

Table 16.4: Marine geophysical targets interpreted as possible wreck

Reference	Site Type	Image	ITM Easting	ITM Northing
AT05 Located 340m west of PDB	Rectangular-shaped feature measuring 6m long by 2.5m wide in water depth of -3.5m CD. Interpreted by Hydromaster as possible wreck of container or barge element. Confirmed as modern machinery from a trawler in 2025 underwater inspection, and not of archaeological significance.		712084	612956
AT06 Located 200m west of PDB	V-shaped target feature measuring 3.6m long by 2m wide, in water depth of -3.9m CD. Interpreted by Hydromaster as possible wreck as bow section of vessel. Confirmed as a discarded modern cage from a mussel boat or similar in 2025 underwater inspection, and not of archaeological significance.		712214	612848

The locations of feature AT05 (at ITM 712084E 612956N) and AT06 (ITM 712214E 612848N) were inspected by ADCO in 2025 under licences 23D0111 and 23R0512 to further examine and assess

their archaeological potential. Neither feature retains indication of formal shipwreck, and neither is considered to be significant archaeologically.

No indications of submerged landscape were identified in the data sets.

16.3.7 MARINE GEOTECHNICAL INVESTIGATIONS 2023

The Geotechnical Investigations (GI) comprised 30 no. Marine Boreholes, 59 no. Marine Vibrocores, 34 Marine Cone Penetration Tests (CPT) and five grab samples. Three land-based boreholes were carried out along the shoreline.

The results of the GI campaign are presented in EIAR Technical Appendix 7: Geotechnical Interpretative Report Rosslare Europort ORE Hub GDG 2024, and were made available to ADCO. The boreholes recorded clays and sands over mudstones and metamorphic rock, with rockhead that retains folds and troughs and breaches the surface on occasion. There was no record or indication of organic deposits, such as peat, or cultural indicators, such as charcoal, wood, ceramic or metal in the records examined. The record of natural strata is repeated in the CPT, Vibrocore and Grab Sample records.

16.3.8 CONCLUSION

The existing information indicates that while there are terrestrial cultural heritage assets adjacent to the PDB, the only asset within the PDB is the lighthouse (NIAH 15704829) located on the existing pier head. The lighthouse, which is not a protected structure, lies outside the development footprint of the proposed works.

In a marine geophysical survey commissioned to inform the EIAR, two geophysical targets (AT05 and AT06) were recorded to the west of and outside the PDB. The targets were inspected in 2025 and confirmed as pieces of debris that are not archaeologically significant features.

However, there is a potential for unrecorded terrestrial (cliff and shore area) and marine (particularly unknown shipwrecks) cultural heritage to be present. As described earlier, the absence of recorded sites is not an indication of the absence of evidence but rather the absence of research and observations.

16.4 ASSESSMENT OF EFFECTS

16.4.1 “DO-NOTHING” SCENARIO

In a ‘Do Nothing’ scenario, the existing baseline environment will remain unchanged.

16.4.2 PRIMARY MITIGATION

No primary mitigation measures are proposed that are relevant to Cultural Heritage.

16.4.3 TERTIARY MITIGATION

Tertiary mitigation measures are imposed as a result of legislative requirements and/or standard sectoral practices. As these measures are standardised and covered by other forms of legislation or controls, they are not presented in extensive detail in the EIAR (IEMA, 2024).

Appropriate archaeological mitigation measures in the form of an Archaeology Management Plan (AMP) will be devised to ensure archaeological monitoring is carried out. Archaeological monitoring during construction is a standard sectoral practice to reduce the risk associated with new significant archaeological discoveries being made in the course of construction.

An AMP will be prepared by the appointed contractor prior to commencement of works. The AMP will identify the protocols to ensure proper management and response to archaeological monitoring of dredging operations and land disturbance activities that will be required during the construction phase.

Toolbox talks will form part of the AMP and EIAR Technical Appendix 16 includes an example that was used for the ground and geophysics investigations in 2024).

16.4.4 CONSTRUCTION PHASE IMPACTS

Construction phase activities are described within Chapter 6: Project Description. Capital dredging has the potential to expose previously unrecorded archaeological features. Dredging activities will remove marine sediments and the dredged sediment will be transferred to the reclamation area. Piling activities for ORE1 and ORE2 quay walls include the formation of a rockfill bund so piling can be undertaken by conventional land-based drilling and piling plant. The bunds will be excavated sequentially and moved forward to the next area of piling as the works progress. Both these activities are essentially excavation and have the potential to expose unrecorded archaeological features.

A new access road will provide access to the ORE facility, connecting directly into the existing roundabout. A small extent of excavation around the northern side of the cliff face adjacent to the existing small boat harbour is required to tie-in with the infilled levels from reclamation

Potential effects on both recorded and unrecorded terrestrial and marine archaeological feature have been identified which may occur during construction of the Proposed Development are summarised as follows:

- Potential loss or damage to archaeological features from capital dredging of approach channel and new ORE Berths 1 and 2.
- Potential loss or damage to archaeological features from reclamation of existing shoreline and seabed, including the rock filled bund to enable piling and the infilling of the existing small boat facility of Ballygeary Harbour.
- Terrestrial excavation has the potential to expose previously unrecorded archaeological features.

Effects on Recorded Archaeological Features

The only recorded archaeological feature within the PDB is the lighthouse. There are no other recorded features. The marine recorded features (AT05 and AT06) are not of archaeological significance. The pre-development surveys indicate the likelihood of the presence of other unknown archaeological features is low.

The terrestrial recorded features located onshore, the light house and other features to the south of the Proposed Development, within the ZoI are described as low importance. The significance of

effects of the proposed activities on recorded cultural heritage features are therefore considered not significant in EIA terms.

There are no known marine archaeological features. This is not significant in EIA terms.

Effects on Unrecorded Archaeological Features

Ground disturbance works that extend beneath the current seabed surface have the potential to expose previously unrecorded archaeological levels and features. In addition, terrestrial excavation in the area of the cliff face has the potential to expose previously unrecorded archaeological features.

The absence of known cultural heritage sites within the PDB, which has been investigated by pre-development survey and the likelihood of finding unrecorded features is low. The sensitivity of any unrecorded receptors is considered of low importance. The significance of effects of the proposed activities on recorded cultural heritage features are therefore considered not significant in EIA terms.

16.4.4.1 OPERATIONAL PHASE IMPACTS

Operational phase activities are anticipated to facilitate offshore wind farm construction, along with usage of the small boat harbour and Sea Scouts slipway. Such works are not anticipated to require additional capital dredging, quayside construction or ground disturbance activities and, as such, there would be no effects on cultural heritage.

16.4.4.2 SUMMARY

The impacts assessed for the Proposed Development (construction phase) are summarised in Table 16.5.

Table 16.5: Significance of effects of cultural heritage assets

Reference	Site Type	Site Name	Status	Impacts from Proposed Development	Importance	Significance of Effects
Marine						
W17556	Shipwreck	*Success (Part of)*, fishing trawler lost in 1982	Site	None (outside of PDB)	Low	n/a
W10425	Shipwreck	Unknown	Site	None (outside of PDB)	Low	n/a
Terrestrial						
WX048-018	Archaeological site	Windmill	Site	None outside of PDB within terrestrial ZoI	Low	Not Significant

Reference	Site Type	Site Name	Status	Impacts from Proposed Development	Importance	Significance of Effects
WX048-0155	Archaeological site	Excavation site	Site	None outside of PDB within terrestrial ZoI	Low	Not Significant
WX048-017	Archaeological site	17th-century House	Site	None outside of PDB within terrestrial ZoI	Low	Not Significant
15704829	Historic Structure	Lighthouse	Site	None within PDB	Low	Not Significant
15704834	Historic Structure	Lighthouse Keeper's House	Site	None outside of PDB within terrestrial ZoI	Low	Not Significant
15704833	Historic Structure	Coastguard Station	Site	None outside of PDB within terrestrial ZoI	n/a	n/a
15704835	Historic Structure	Lifeboat Station	Site	None outside of PDB within terrestrial ZoI	Low	Not Significant
15704836	Historic Structure	Harbour House	Site	None outside of PDB and terrestrial ZoI	n/a	n/a
15704831	Historic Structure	House	Site	None outside of PDB and terrestrial ZoI	n/a	n/a
15704832	Historic Structure		Site	None outside of PDB and terrestrial ZoI	n/a	n/a
15704830	Historic Structure	House	Site	None	n/a	n/a

Reference	Site Type	Site Name	Status	Impacts from Proposed Development	Importance	Significance of Effects
				outside of PDB and terrestrial ZoI		
15704840	Historic Structure	Worker's House	Site	None outside of PDB and terrestrial ZoI	n/a	n/a
Marine						
AT05	debris	AT05	Site	None outside of PDB	n/a	n/a
AT06	debris	AT06	Site	None outside of PDB	n/a	n/a
Unknown Features						
n/a	Unrecorded terrestrial cultural heritage features	n/a	n/a	Loss or damage from reclamation activities	Low	Slight
n/a	Unrecorded Marine cultural heritage features	n/a	n/a	Loss or damage from dredging and reclamation activities	Low	Slight

16.4.4.3 CUMULATIVE EFFECTS AND OTHER INTERACTIONS

The Cumulative Impact Assessment (CIA) takes into account the impacts associated with the Proposed Development together with other proposed and reasonably foreseeable projects, plans and existing and permitted projects. The projects and plans selected as relevant to the CIA presented are presented in Table 16.6.

Table 16.6: Cumulative Impact assessment of projects

Project Name	Cumulative Impact assessment
Projects in Rosslare Europort area	
20211672 Extension to Berth 3	Enhance ORE Hub development. This project will be substantially completed by the time the proposed project commences construction.
20200725 New main access road	Enhance ORE Hub development. This project will be substantially completed by the time the proposed project commences construction.

Project Name	Cumulative Impact assessment
20211322 Europort Terminal 7	Enhance ORE Hub development. This project is well progressed and is expected to be virtually complete prior to construction of the Proposed Development and will not hinder the development of the ORE Hub at Rosslare Europort
Projects adjacent to Rosslare Europort area	
S0016-02 Dumping at Sea of maintenance dredge spoil from Rosslare Europort and Ballygeary Harbour	No cumulative impact
N25 Rosslare Europort Access Road	Enhance access to Europort. Expected to be substantially completed in the very early stages of the proposed development with no significant overlapping constraints
Rosslare Coastal Erosion and Flood Relief Scheme	No cumulative impact
Offshore Wind Energy Projects	
Arklow Bank Wind Park 2	Reciprocal benefits anticipated between Rosslare ORE Hub development and DMAP projects
South Coast DMAP	Reciprocal benefits anticipated between Rosslare ORE Hub development and DMAP projects
Codling Wind Park	No cumulative impact
Dublin Array	No cumulative impact
North Irish Sea Array	No cumulative impact
Oriel Offshore Wind Farm	No cumulative impact

The existing planning applications 20211672, Extension to Berth 3; 20200725, new main access road to the port, and 20211322 Terminal 7 works, will take place adjacent to the Proposed Development and will be substantially completed by the time the proposed project commences construction and therefore no cumulative effects are possible.

The Dumping at Sea for maintenance dredge spoil from Rosslare Europort and Ballygeary Harbour will not give rise to cumulative effects since it is proposed to beneficially reuse all dredge arisings in the Proposed Development for the land reclamation works.

The proposal to develop the N25 Rosslare Europort Access Road will improve the existing Ballygeary Link Road to the standards required for a national primary road and to meet the forecast future demand for port traffic.

16.5 MITIGATION MEASURES AND MONITORING

16.5.1 CONSTRUCTION PHASE MITIGATION MEASURES AND MONITORING

No secondary mitigation measures are proposed for Cultural Heritage receptors.

16.5.2 OPERATIONAL PHASE MITIGATION MEASURES AND MONITORING

It is unlikely that archaeological issues will arise during the operational phase. However, the AMP will be reviewed and updated post construction by the project archaeologist/s to ensure the observation, recording and recovery of material of archaeological interest, if any, that occurs during the operational phase of the project.

16.6 RESIDUAL EFFECTS

There are no significant residual effects on Cultural Heritage receptors arising from the Proposed Development.

16.7 MONITORING

During the construction phase archaeological monitoring will be carried out by suitably qualified and experienced maritime archaeological personnel licensed by the DHLGH.

Further monitoring of Cultural Heritage receptors is not required.

16.8 SUMMARY

The Proposed Development will not result in any effect on known cultural heritage sites. An AMP including archaeological monitoring will be implemented during construction to mitigate the possibility of uncovering unrecorded cultural heritage features. It is considered that there is no likelihood of significant effects on Cultural Heritage receptors as a result of the Proposed Development (see Table 16.7).

Table 16.7: Assessment Summary

Potential Effect	Construction/ Operation	Beneficial / Adverse/ Neutral	Extent (Site/Local/National / Transboundary)	Short term/ Long term	Direct/ Indirect	Permanent / Temporary	Reversible / Irreversible	Significance of Effect (according to defined criteria)	Proposed mitigation	Residual Effects (according to defined criteria)
Effects on Recorded Archaeological Features	Construction	Adverse	Site	Short Term	Direct	Temporary	Reversible	Not Significant	n/a	Not Significant
Effects on Unrecorded Archaeological Features	Construction	Adverse	Site	Short Term	Direct	Temporary	Reversible	Slight (Not Significant)	n/a	Not Significant

16.9 REFERENCES

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