Arklow Bank Wind Park 2

Environmental Impact Assessment Report

Volume III, Appendix 18.3: Intertidal Archaeology Inspection Report

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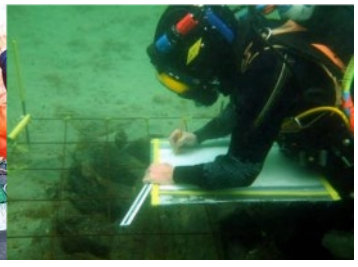
Arklow Bank Wind Park 2

Intertidal Archaeology

Arklow Bank Wind Park 2

Intertidal Archaeology

Volume III, Appendix 18.3: Intertidal Archaeology Inspection Report

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1.0	16/05/2024	Final (External)	ADCO	GoBe Consultants	Sure Partners Limited

Statement of Authority

Experts	Qualifications	Relevant Experience
Niall Brady	Graduate of UCD and Cornell University PhD 1996 HSE Part III diver since 2000	Dr Niall Brady, FSA is founding co-director of ADCO and is the company secretary. With more than two decades of experience in maritime related research and resolution, he is primarily responsible for project management and company growth initiatives. Dr Brady is a medievalist by training. Niall was project director for the Discovery Programme, Ireland's institute for advanced archaeological research, where he designed and implemented the Medieval Rural Settlement Project (2002-10). Niall has extensive project management experience in the consultancy sector, and has carried out a large number of excavations, monitoring projects, and Environmental Impact Assessments on land and underwater.

Contents

Acronyms

Abbreviation	Meaning
ADCO	Archaeological Diving Company Ltd
DHLGH	Department of Housing, Local Government and Heritage
E	Easting
EIAR	Environmental Impact Assessment Report
GPS	Global Positioning System
HDD	Horizontal Directional Drilling
ITM	Irish Transverse Mercator
N	Northing
NGR	National Grid Reference
NIAH	National Inventory of Architectural Heritage
NMS	National Monuments Service
OD	Ordnance Datum
OGI	Onshore Grid Infrastructure
OS	Ordnance Survey
RMP	Register of Monuments and Places
SMR	Sites and Monuments Record
UAIA	Underwater Archaeological Impact Assessment

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Executive Summary

This Marine Archaeology Intertidal Inspection Report is based on a comprehensive desktop assessment and field inspection.

No archaeological features or potential features were identified in what is a dynamic marine environment.

Assuming the offshore export cables are installed under the foreshore via trenchless techniques, the need for further archaeological input at the landfall location should not be required.

The recommendations contained in this report are subject to the approval of the National Monuments Service at the Department of Housing, Local Government and Heritage.

1 Introduction

This Marine Archaeology Intertidal Inspection Report provides an archaeological assessment of the foreshore at the Arklow Bank Wind Park 2 Offshore Infrastructure (hereafter referred to as 'the Proposed Development') cable landfall at Johnstown North townland, Co. Wicklow.

The Marine Archaeology Intertidal Inspection Report is based on a desktop review of existing archaeological sources and an inspection of the foreshore that took place at Low Water on 15 October 2020, and at Low Water on 22 February 2024.

2 Study area

The landfall location for offshore export cable routes is at Johnstown North townland, 4.5 km north of Arklow (see Figure 18.3.1). The landfall is in an area of low rocky sea-cliffs where there is a series of small coves. The Cable Corridor and Working Area extends north along Ennereilly Beach in Ballinaskea townland to a point just south of the Redcross River. The river serves as the townland boundary between Ballinaskea townland and Ennereilly townland to the north and outside the study area. Ennereilly Beach is a sandy beach with low sand dunes above the High Water Mark. Consideration of historic Ordnance Survey mapping indicates a similar topography between the mid-1800s and the present day. The most notable change is the course of the Redcross River as it is recorded crossing the foreshore at the northern limit of the study area.

3 Consultation

A summary of the key issues raised during consultation activities undertaken to date specific to this report is presented in Table 18.3.1 below.

Table 18.3.1: Summary of key consultation issues raised during consultation activities undertaken for the Proposed Development relevant to the marine archaeology intertidal inspection.

Date	Consultee and type of response	Issues raised
July 2020	*National Monuments Service, Underwater Archaeology Unit – Meeting*	NMS confirmed that a licence would not be required for the vantage point survey of the intertidal area of the landfall location.

4 Methodology

4.1 Desktop study

Information on intertidal archaeology was collected through a detailed desktop review of existing studies and datasets. These are summarised in Table 18.3.2 below.

Table 18.3.2: Summary of key desktop sources.

Title	Source	Year	Author
Historic OS maps	*https://heritagedata.maps.arcgis.com/*	*various*	*n/a*
Topographical Files	*National Museum of Ireland*	*various*	*n/a*
'Johnstown North', 97E0252	*www.excavations.ie*	*1997*	*Niall Gregory*
'Johnstown North', 97E0207	*www.excavations.ie*	*1997*	*Patricia Lynch*
Ballinaskea, E3201	*WI041-015-*	*2009*	*Yvonne Whitty*
Ballinaskea, E3202	*WI041-016-*	*2009*	*Yvonne Whitty*

4.2 Site-specific surveys

A summary of the surveys undertaken to inform the intertidal archaeology baseline is outlined in Table 18.3.3 below.

Intertidal inspection took place on 10 October 2020 and on 22 February 2024 at a Low Water Spring tide predicted to be at 15:22 hrs and 15:30 hrs respectively. This presented the opportunity to view the foreshore when it was exposed to the greatest extent. Both days were bright and the sea state was relatively calm, ensuring good visibility.

A team of two experienced maritime archaeologists carried out the inspections, equipped with GPS receivers to position any observations, and cameras to record any features. Access to the site in 2020 was via the pasture field to the north of the local road R750, where a site area was the focus of geotechnical investigations being conducted for the Arklow Bank Wind Park 2 Onshore Grid Infrastructure (OGI). Access in 2024 was via the car park for Ennereilly Beach.

Table 18.3.3: Summary of site-specific survey data.

Title	Extent of survey	Overview of survey	Survey contractor	Date	Reference to further information
Marine Archaeology Intertidal Inspection	*Offshore export cable landfall*	*Vantage point inspection by maritime archaeologists using GPS and cameras.*	*ADCO*	*October 2020 February 2024*	*N/A*

5 Baseline environment

5.1 Desktop review

There are no known archaeological sites recorded along the foreshore at Johnstown North or at Ballinaskea townlands, and there have been no artefacts reported to the National Museum of Ireland from these locations (Figure 18.3.1).

There is however a series of four archaeological sites in Johnstown North townland, all of which are associated with prehistoric activity, and two sites in Ballinaskea, one of which is associated with the Bronze Age/Iron Age and the other of which is dated to the Iron Age/Early Medieval period activity:

- Two recorded *fulacht fiadha*, or ancient cooking places, are known to the west of the M11 (RMP WI0410004 and WI041-007 respectively). These two sites were observed as spreads of burned soil during ploughing activities in the 1970s. Archaeological monitoring of topsoil stripping associated with the Arklow Bypass in the late 1990s revealed further evidence to the south, and the opportunity was provided to conduct archaeological excavation;

- A burnt mound feature (RMP WI041-011: Gregory, 97E0252) revealed two pits and three troughs and four distinct spreads of burnt material. One of these troughs had two post-holes associated with it. The finds consisted of twelve worked flints, but these were not from a secure context;

- A second excavation close by revealed a *fulacht fiadha* complex consisting of three troughs, eight hearths and approximately one hundred stake- and post-holes (RMP WI041-012: Lynch, 97E0207).

- An isolated pit feature was excavated on the N11 road improvement scheme. A radiocarbon determination of material recovered placed the pit in the Iron Age/Early Medieval period (RMP WI041-015, licence E3201, Whitty 2009).

- A burned mound was excavated on the N11 road improvement scheme. Radiocarbon determinations showed two phases of activity at the site, one dating to the early Bronze Age and the second to the middle Bronze Age (RMP WI041-016, licence E3202, Whitty 2009).

The four sites in Johnstown North townland represent cooking and settlement activity over an extended area. Sites W041-011 and WI041-12 are located closest to the shoreline, but remain some distance from it (900 m) (Figure 18.3.1). The sites in Ballinaskea are also located at a remove from the shoreline (880 m). There is no record of previous archaeological work at the shoreline (Figure 18.3.1).

To the north of the survey area, a cluster of archaeological sites exists in Ennereilly townland, comprising a scatter of prehistoric stone tools (WI041-009) located on the foreshore, and a church and graveyard complex nestled in a cluster beside the Redcross River (WI041-002001–:002004), while to the south of the survey area a cluster of enclosure sites (WI041-006001–:006005) in Johnstown South townland may also highlight activity associated with the Early Medieval period (Figure 18.3.1).

6 Intertidal inspection

The nature of the coastline at Johnstown North is one of low rock cliffs that present small headlands at frequent intervals, which in turn give rise to small coves in between. The ground surface above the cliffs is relatively flat and is pasture land (Figure 18.3.2a), but

gives way to precipitous slopes at the cliff tops (Figure 18.3.2b). A yellow boulder clay till cover overlies rock with steeply inclined strata. Shingle overlying sand fills the coves below and the foreshore is populated with a series of rock outcrops that form small stacks straddling the Low Water Mark.

The shoreline in Ballinaskea changes to being a sandy beach (Ennereilly Beach), with low sand dunes extending inland. A small stream empties on to the beach at a point where there is a low exposure of rock outcrop, while a larger water body, the Redcross River crosses the foreshore at the northern end of the survey area, marking the townland boundary between Ballinaskea and Ennereilly.

There were no indications of archaeological features observed within the area inspected, which extended from a location south of the proposed landfall to the Redcross River in the north. The cliff top fields in Johnstown North where accessible are flat and undulating and do not retain indications of embankment or ditching that would be associated with fortification. Nor was there any indication of quarrying into the cliff faces to provide, for instance, pathways or steps up the cliffs, and there were no timber posts or other features that might otherwise indicate active use of the foreshore as a point of transfer from the sea to land and *vice versa*. There was no flotsam or other indications of wreckage identified either. It is clearly a highly dynamic foreshore environment, and any material that might be washed ashore would be subject to active erosion and wash, quickly reducing anything that might lie on the shoreline.

The foreshore along Ennereilly Beach is a wide, gently sloping sandy beach. A low outcrop of rock exists at one point, where a small stream makes its way across the beach but otherwise the beach is featureless. The Redcross River at the north end of the survey area traverses the foreshore following an acute bend. A stratification of sand is exposed and is clearly recut on every tidal cycle. Neither the beach nor the sand dunes extending behind the beach retain any exposed features of archaeological interest, and will not be impacted by the proposed development.

The two offshore export cables will traverse underneath the rugged environment at Johnstown North. The conduits for the cable installation will be bored underground by Horizontal Directional Drilling (HDD) or similar trenchless method. Two offshore export cable routes will converge at the landfall, as indicated in Figure 18.3.1.

7 Summary of observations

This Marine Archaeology Intertidal Inspection Report is based on a comprehensive desktop assessment and field inspection. No archaeological features or potential features were identified in what is a dynamic marine environment.

8 Recommendations

Further archaeological assessment of the proposed offshore export cable route landfall location in Johnstown North prior to construction is not required.

Assuming that the cable installation is carried out by HDD or other trenchless method, and subject to the approval of the National Monuments Service, a protocol, or Archaeology Management Plan, will be in place to facilitate the reporting of any potential archaeological

observations made in the course of the cable installation. The protocol would be based on non-archaeological attendance during installation.

The recommendations contained in this Marine Archaeology Intertidal Inspection Report are subject to the approval of the National Monuments Service at the Department of Housing, Local Government and Heritage.

9 References

Gregory, N. 'Johnstown North', 97E0252 (www.excavations.ie).

Lynch, P. 'Johnstown North', 97E0207 (www.excavatons.ie).

Whitty, Y. 'Ballinaksea', E3201 (https://heritagedata.maps.arcgis.com/).

Whitty, Y. 'Ballinaksea', E3202 (https://heritagedata.maps.arcgis.com/).

Online sources

Historic Environment Viewer, https://maps.archaeology.ie/HistoricEnvironment/.

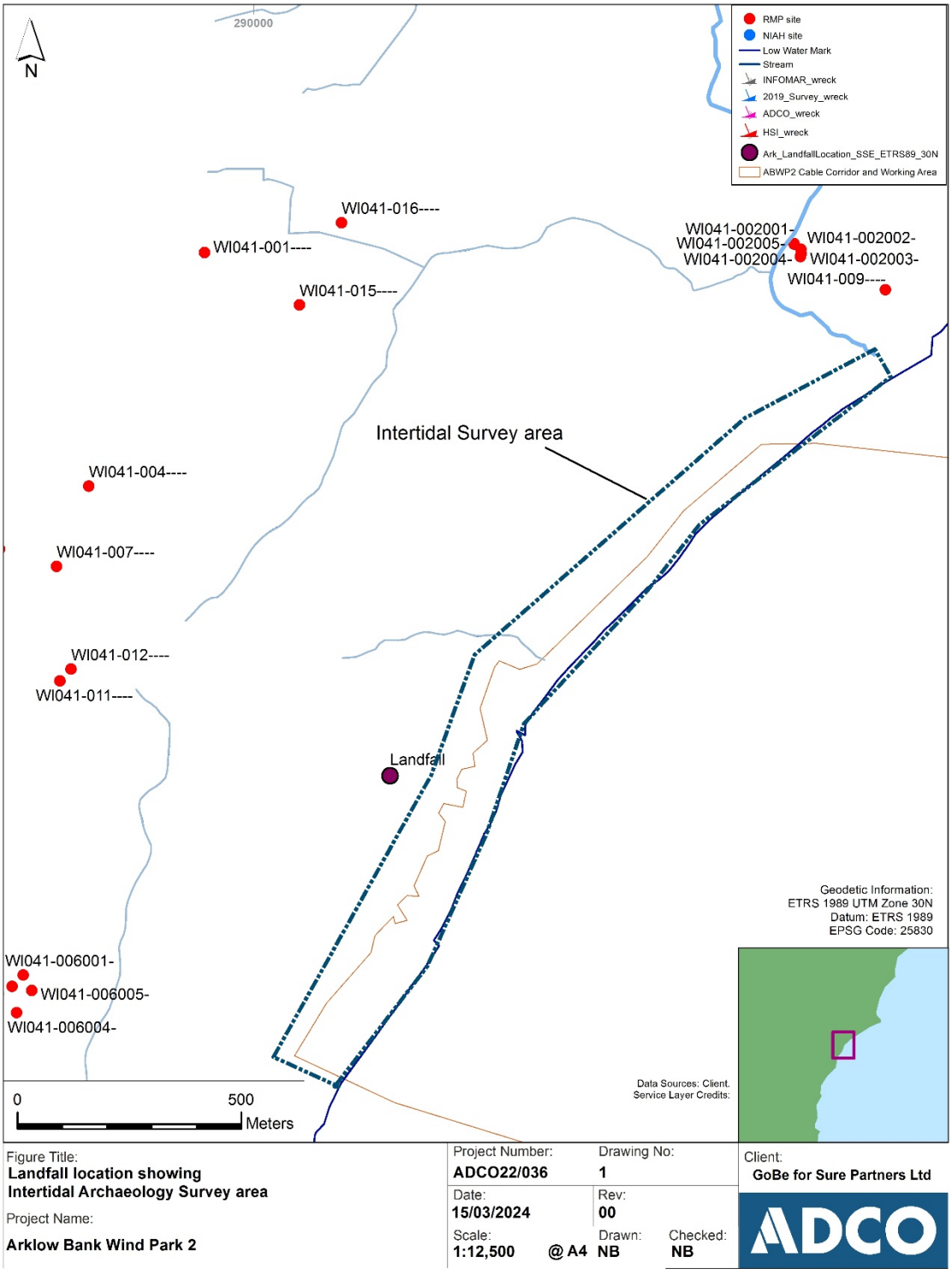

Figure 18.3.1: Proposed landfall location showing Intertidal Archaeology Survey area.

2a: View looking south along green field at top of cliff

2b: View looking north along sea cliff towards proposed cable landfall

2c: View looking from cliff top to foreshore and outcrop in the vicinity of the cable landfall

2d: View looking from cliff top in the vicinity of the cable landfall

2e: View looking south from cliff top in the vicinity of the cable landfall

2f: View looking south from cliff top towards cliff showing rock formation at cliff edge

Figure Title: **Photographs showing nature of cliff and foreshore at proposed landfall locations**	Project Number: **ADCO22/036**	Drawing No: **2**	Client: **GoBe for Sure Partners Ltd**
Project Name: **Arklow Bank Wind Park 2**	Date: **15/03/2024**	Rev: **00**	
	Scale: **n/a** @ A4	Drawn: **NB** / Checked: **NB**	ADCO

Figure 18.3.2: Photographs showing nature of cliff and foreshore at proposed landfall locations.

3a: View looking north along Ennereilly Beach

3b: View looking north at low outcrop exposure on Ennereilly Beach

3c: View looking west at stream that crosses foreshore

3d: View looking east from stream towards foreshore

3e: View looking north from dunes at Redcross River as it traverses foreshore

3f: View looking south at sand strata exposed by course of Redcross River

Figure Title:
Photographs showing nature of foreshore on Ennereilly Beach

Project Name:
Arklow Bank Wind Park 2

Project Number:	Drawing No:	Client:
ADCO22/036	3	GoBe for Sure Partners Ltd
Date: 15/03/2024	Rev: 00	
Scale: n/a @ A4	Drawn: NB / Checked: NB	

Figure 18.3.3: Photographs showing nature of foreshore on Ennereilly Beach.