

## 14 CULTURAL HERITAGE

### 14.1 INTRODUCTION

This chapter assesses the impacts of the Project (**Figure 2.2**) on Cultural Heritage. The term 'Project' is used within the chapter to refer to all elements of the application for the construction of Inchamore Wind Farm (**Chapter 2: Project Description**), including the Grid Connection Route and Turbine Delivery Route. The term 'Site' is used to refer to all land that falls within the Inchamore Wind Farm Site Boundary. The term 'Development' is used to describe the wind turbines, all site infrastructure and all works required along the Turbine Delivery Route within the Redline Boundary.

The assessment considers the potential effects during the following phases:

- Construction phase;
- Operation phase, and
- Decommissioning phase.

Where negative effects are predicted, the chapter identifies appropriate mitigation strategies therein.

The term 'Cultural Heritage' encompasses heritage assets relevant to both the tangible resource (archaeology, architecture heritage); and non-tangible resources (history, folklore, tradition, place names etc.). The recorded and potential cultural heritage resource within lands encompassing the proposed wind farm site (the Site) and the surrounding landscape was reviewed in order to compile a comprehensive cultural heritage baseline for the assessment. The proposed Grid Connection Route and the route for the delivery of turbines to the Site were also assessed. The extent of the study area assessed is defined in **Section 14.2.1**.

Common acronyms used throughout this EIAR can be found in **Appendix 1.2**. This chapter of the EIAR is supported by Figures provided in Volume III and by the following Appendix document provided in Volume IV of this EIAR:

- **Appendix 14.1 Plates**

A Construction and Environmental Management Plan (CEMP) is appended to the EIAR in **Appendix 2.1**. In the event planning consent is granted for the Development, the CEMP will be updated prior to commencement of development to address the requirements of any relevant planning conditions, including any additional mitigation measures, which are conditioned and will be submitted to the planning authority for written approval. For the purpose of this application, a summary of the mitigation measures is included in **Appendix 17.1**.

### 14.1.1 Statement of Authority

The chapter was prepared by Tony Cummins, a Senior Archaeologist with John Cronin and Associates. Mr Cummins holds B.A. and M.A. degrees in archaeology (University College Cork, 1992/1994) and has accumulated twenty-eight years' continuous industry experience. He was confirmed as a licence eligible archaeologist by the National Monuments Service in 1998 and has extensive experience in the preparation of cultural heritage assessments.

### 14.1.2 Assessment Structure

The results of the desktop study and field surveys, which are provided in **Section 14.3** of this chapter, together with the other assessments are considered to allow the Board to carry out an assessment of the Project from a Cultural Heritage perspective. In line with the revised EIA Directive and current EPA guidelines (as detailed in **Section 14.2.2** below) the chapter provides considerations of effects based on the following:

- Assessment of cultural heritage value and sensitivity;
- Assessment of the magnitude of cultural heritage effects within the Study Area;
- Assessment of the significance of cultural heritage impacts; and
- Assessment of cumulative cultural heritage impacts.

## 14.2 ASSESSMENT METHODOLOGY AND SIGNIFICANCE CRITERIA

### 14.2.1 Definition of Study Area

The study area reviewed for the assessment comprised the area within the Development and the surrounding lands extending for 1 km in all directions beyond its Redline Boundary as well as a 100 m wide area centred on the Grid Connection Route and works required to facilitate the Turbine Delivery Route. The extent of the Development study area was chosen in order to compile a baseline context for the known cultural heritage resource within the Site and its environs as well as to assess potential direct and indirect impacts on the locations and settings of known cultural heritage assets within this area. The extent of the 100 m study area centred on the Grid Connection Route and Turbine Delivery Route work areas was chosen in order to appraise if there are any known elements of the cultural resource within their localised footprints or close environs, including potential sub-surface elements which may be susceptible to direct or indirect impacts.

In addition, the wider landscape extending for 10 km in all directions from the Site was reviewed to determine the presence of any nationally significant cultural heritage assets with heightened visual sensitivities, i.e., National Monuments in State Care and World Heritage sites (including tentative sites). This also included a review of other cultural

heritage assets with visual attributes that extend beyond their immediate settings within this area, such as archaeological monuments with ritual visual alignments across the wider landscape that may be potentially subject to intrusions by turbines (e.g., stone circles, stone rows and megalithic tombs). The extent of the 10 km area was chosen in order to appraise if the wider landscape contains individual or groupings of such visually sensitive assets that may be susceptible to potential medium-to-high magnitudes of indirect impacts on their wider settings or alignments.

A review of the assessment of the significance of visual impacts on publicly accessible cultural heritage receptors within 20 km of the Development presented in the Landscape and Amenity Assessment chapter was also carried out (see **Chapter 12**). An archaeological review of this 20 km area did not identify other monuments or cultural heritage locations within publicly accessible lands that likely required visual impact assessment.

#### 14.2.2 Assessment Methodology

The methodology used for this assessment follows guidelines presented in the *Guidelines for Information to be Contained in EIAR (2022)*. The chapter complies with the requirements of Directive 2011/92/EU as amended by Directive 2014/52/EU, and the Planning and Development Act, 2000 (as amended) and Planning and Development Regulations, 2001 (as amended).

#### 14.2.3 Relevant Legislation and Guidance

The tangible elements of the cultural heritage resource can be broadly divided into the archaeological resource comprising sites and monuments dating from the prehistoric period to the post-medieval period and the architectural heritage resource, encompassing standing structures and sites of cultural importance often dating to the post-medieval and modern periods. In addition, assets such as local placenames, folklore and traditions are considered part of the intangible cultural heritage resource. The management and protection of the cultural heritage resource in Ireland is achieved through a framework of international conventions and national laws and policies. This framework was established in accordance with the provisions of the 'European Convention on the Protection of the Archaeological Heritage' (the Valletta Convention) and the 'European Convention on the Protection of Architectural Heritage' (Grenada Convention). Both of these conventions were ratified by Ireland in 1997. While there is no current national legislation providing legal protection for the Irish intangible heritage resource it is noted that the UNESCO *Convention for the Safeguarding of the Intangible Cultural Heritage*, 2003, which seeks to safeguard and promote awareness of this element of cultural heritage, was ratified by Ireland in 2015.

The legislation and guidelines that are relevant to this assessment comprise the following:

- National Monuments Act 1930 (and amendments);
- Heritage Act (1995);
- National Cultural Institutions Act (1997);
- Architectural Heritage (National Inventory) and Historic Monuments (Misc) Provisions Act (1999);
- Planning and Development Act (2000) as amended;
- Department of Arts, Heritage and Gaeltacht (2011) *Architectural Heritage Protection: Guidelines for Planning Authorities*<sup>1</sup>, and
- Department of Arts, Heritage, Gaeltacht and the Islands (1999) *Framework and Principles for the Protection of Archaeological Heritage*<sup>2</sup>

#### 14.2.4 Archaeological Heritage

The National Monuments Service is currently based in the Department of Housing, Local Government and Heritage and is responsible for the preservation, protection and promotion of Ireland's archaeological heritage. The National Monuments Acts 1930 (and amendments), the Heritage Act 1995 and relevant provisions of the National Cultural Institutions Act 1997 are the primary means of ensuring the satisfactory protection of archaeological remains. There are a number of mechanisms under the National Monuments Acts that are applied to secure the protection of archaeological monuments. These include the designation of National Monument status, the Register of Historic Monuments, the Record of Monuments and Places and the Sites and Monuments Record as well as the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

A National Monument is described as 'a monument or the remains of a monument, the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto' (Section 2, National Monument Act, 1930). The Record of Monuments and Places was established under Section 12(1) of the National Monuments (Amendment) Act, 1994 and was based on the Sites and Monuments Record and Register of Historic Monuments. These records comprise lists and maps of all known archaeological monuments and places for each county in the State. The National Monuments Service maintains an online Historic Environment Viewer<sup>3</sup> which comprises an interactive map/search facility that provide access to records stored on its national database of sites and monuments. The Viewer includes designated areas around recorded monuments known as 'zones of notification' which do not comprise

<sup>1</sup> <https://www.gov.ie/en/publication/0937a-architectural-heritage-protection-guidelines-for-planning-authorities/>

<sup>2</sup> <https://www.archaeology.ie/sites/default/files/media/publications/framework-and-principles-for-protection-of-archaeological-heritage.pdf>

<sup>3</sup> <https://maps.archaeology.ie/HistoricEnvironment/>

buffer zones but are intended to indicate areas of archaeological potential within their environs<sup>4</sup>. All archaeological sites listed in the Record of Monuments and Places receive statutory protection under the National Monuments Act 1994 and no works can be undertaken at their locations, including their surrounding zones of notification, without providing two months advance notice to the National Monuments Service.

The Sites and Monuments Record and the Record of Monuments and Places list two archaeological sites within the Redline Boundary as well as a further 15 examples within the surrounding 1 km area and these are detailed in **Section 14.3**. The potential for the presence of hitherto unrecorded, sub-surface archaeological features within Project areas is also considered.

#### 14.2.4.1 Architectural Heritage

The protection of the architectural heritage resource is provided for through a range of legal instruments that include the Heritage Act 1995, the Architectural Heritage (National Inventory) and National Monuments (Misc. Provisions) Act 1999, and the Planning and Development Act 2000 Section (2.1) of the Heritage Act 1995, describes architectural heritage as follows:

*All structures, buildings, traditional and designed, and groups of buildings including streetscapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest, together with their setting, attendant grounds, fixtures, fittings and contents, and, without prejudice to the generality of the foregoing, includes railways and related buildings and structures and any place comprising the remains or traces of any such railway, building or structure.*

The Planning and Development Act 2000 requires Planning Authorities to maintain a 'Record of Protected Structures' of buildings and other structures that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. All structures listed for protection in current development plans, are designated protected structures and planning permission is required for any works to such structures that would affect their character. A protected structure also includes the lands and other structures within its curtilage. While the notion of curtilage is not defined by legislation, the *Architectural Heritage Protection Guidelines for Local Authorities*<sup>5</sup> (Department of Arts, Heritage and the Gaeltacht 2011), describes it as the parcel of land immediately associated with a structure and which is (or was) in use for the purposes of the structure. The Project, and surrounding study area, extends into Counties Cork and Kerry and the current Record of Protected Structures for these administrative areas are published in the County Cork

<sup>4</sup> <https://www.archaeology.ie/sites/default/files/media/publications/archaeology-planning-process-pl13.pdf>

<sup>5</sup> <https://www.gov.ie/en/publication/0937a-architectural-heritage-protection-guidelines-for-planning-authorities/>

Development Plan 2022-2028 and the County Kerry Development Plan 2022-2028. The Planning and Development Act 2000 also provides for the inclusion of objectives for preserving the character of places, areas, groups of structures or townscapes of special interest designated as Architectural Conservation Areas.

The Architectural Heritage Act 1999 established the National Inventory of Architectural Heritage and the National Inventory of Architectural Heritage Historic Gardens and Designed Landscapes to create a record of built heritage structures and associated lands within the State. While inclusion in the National Inventory of Architectural Heritage does not provide statutory protection to a structure, it does provide an indication of architectural heritage value and the inventory is intended to advise local authorities on compilation of their Records of Protected Structures.

#### **14.2.4.2 Cork County Development Plan 2022-2028**

The County Cork Development Plan 2022-2028<sup>6</sup> includes a number of policies and objectives in relation to the protection of the cultural heritage resource within the county and these include objectives in relation to the protection of the archaeological resource (HE 16-9b: Management of Monuments within development sites, HE 16-10c: Undiscovered Archaeological Sites, HE 16-7 Battlefield, Ambush and Siege Sites and Defensive Archaeology, HE 16-9: Archaeology and Infrastructure Schemes, HE 16-6 Industrial and Post Medieval Archaeology and HE 16-9c Archaeological Landscapes). The Development Plan also includes a number of policies and objectives in relation to the protection of the architectural heritage resource within the county including the protection of designated structures and Architectural Conservation Areas (HE 16-14: Record of Protected Structures, HE 16-15: Protection of Structures on the NIAH and E 16-18: Architectural Conservation Areas) as well as non-designated features such as vernacular buildings, historic gardens and landscapes, masonry walls, railings, follies, gates, bridges and street furniture that are of built heritage significance (HE 16-16: Protection of Non-Structural Elements of Built Heritage, HE 16-19: Vernacular Heritage and HE 16-20: Historic Landscapes). The Development Plan also includes a number of policies and objectives in relation to the protection of the cultural heritage resource within the county, including aspects such as the cultural heritage of the county (HE 16-23: Cultural Heritage), linguistic heritage (HE 16-22: Gaeltacht Areas), placenames (HE 16-24: Naming of New Developments) and the arts (HE 16-26: The Arts). The *Múscraí Heritage Plan: conservation, management and interpretation plan 2018-2032*<sup>7</sup> was also reviewed as part of the assessment.

<sup>6</sup> <https://www.corkcoco.ie/en/resident/planning-and-development/cork-county-development-plan-2022-2028>

<sup>7</sup> <https://www.corkcoco.ie/sites/default/files/2019-01/M%20C3%20BAscra%20AD%20Gaeltacht%20CMIP%20Final%20Draft%20Jan%202019.pdf>

#### 14.2.4.3 Kerry County Development Plan 2022-2028

While the Site is contained within County Cork, the surrounding 1 km study area around its Redline Boundary, as well as sections of the Site Access Road and Grid Connection Route, extend into County Kerry. The County Kerry Development Plan 2022-2028<sup>8</sup> was therefore also reviewed as part of the assessment. Section 8.3 of the Development Plan includes the Council's objectives for the protection of the archaeological resource which includes sections in relation to recorded archaeological monuments as well as the underwater archaeological resource (Development Plan Sections 8.3.1 and 8.3.3). The Development Plan also identifies 19 archaeological landscapes within the County and contains objectives that protect the monuments and their landscape settings within these areas as well as their visual aspect and monument inter-visibility (Development Plan Section 8.3.2). The Project does not extend into the boundaries of any of these designated archaeological landscapes. The Site is located c.2 km outside the boundary of The Paps Archaeological Landscape (Development Plan Archaeological Landscape ref. 13<sup>9</sup>) while a section of the Grid Connection Route follows an existing forestry road that extends outside the southern end of the boundary of this designated landscape. The closest section of this existing forestry road is located c.30 m outside the landscape boundary (**Figure 14.11**). The Development Plan also presents objectives for the protection of the architectural heritage resource, including Protected Structures, Architectural Conservation Areas, vernacular architecture, historic landscapes and arts/culture (Development Plan Sections 8.4.2, 8.4.3, 8.4.4, 8.4.5 and 8.2.1).

#### 14.2.5 Desktop Study

The assessment presents the results of a desktop study of relevant published sources and datasets undertaken in order to identify all recorded and potential archaeological, architectural and other cultural heritage sites/features/areas within the study areas of the Site, Grid Connection Route and Turbine Delivery Route. The principal sources reviewed for the assessment of the recorded archaeological resource were the Sites and Monuments Record and the Record of Monuments and Places. The current Record of Protected Structures for Counties Cork and Kerry as well as the National Inventory of Architectural Heritage were consulted for assessing the designated architectural heritage resource.

Other sources consulted as part of the assessment included the following:

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<sup>8</sup> <http://docstore.kerrycoco.ie/KCCWebsite/planning/devplan/vol1updated.pdf>

<sup>9</sup> <https://consult.kerrycoco.ie/sites/default/files/4%20Archaeological%20Landscapes.pdf>

*Archaeological Inventory of County Cork Vols. 3 and 5:*

These publications present summary descriptions of the recorded archaeological sites within this area of the county and relevant entries are included within the chapter. In addition, the current national online database resources pertaining to same were reviewed on the National Monuments Service's Historic Environment Viewer ([www.archaeology.ie](http://www.archaeology.ie)) in March 2023. A section of the 1 km study area around the Site as well as sections of the Site Access Road, Turbine Delivery Route and Grid Connection Route extend into an area of County Kerry that does not have a published archaeological inventory. The review of the Historic Environment Viewer included an appraisal of the known archaeological monuments within the relevant lands in County Kerry.

*Heritage Council of Ireland Map Viewer:*

This online mapping source ([www.heritagemaps.ie](http://www.heritagemaps.ie)) collates various cultural heritage datasets provided by, among others, the National Monuments Service, the National Museum of Ireland, local authorities, the Royal Academy of Ireland and the Office of Public Works and was reviewed in March 2023.

*Topographical Files of the National Museum of Ireland:*

These files, which are archived in the museum premises in Kildare Street, Dublin, were reviewed as part of the assessment and contain no entries for any of the townlands within the study area.

*Database of Irish Excavation Reports:*

This database contains summary accounts of all archaeological excavations carried out in Ireland (North and South) from 1970 to present. Current data was accessed via [www.excavations.ie](http://www.excavations.ie) in March 2023.

*Literary Sources:*

Various published sources were consulted in order to assess the archaeological, historical, architectural heritage and folklore record of the study area.

*Cartographic Sources:*

A review of available historic cartographic sources was undertaken, and these included the 17th-century Down Survey and various map editions published by the Ordnance Survey from the mid-19th century onward. These sources can indicate the presence of past settlement patterns, including features of archaeological and architectural heritage significance that no longer have any surface expression. Relevant extracts from the reviewed cartographic sources are presented in **EIAR Volume III (Figures 14.4 and 14.5)**.

*Aerial, Satellite and LiDAR imagery:*

A review of available imagery of the study area was undertaken in order to review the extent of modern interventions and to ascertain if any traces of unrecorded archaeological sites were visible within the Site.

*Irish National Folklore Collection:*

A review was undertaken of transcribed material from the National Folklore Collection archive which has been digitised and published online at [www.duchas.ie](http://www.duchas.ie).

*UNESCO designated World Heritage Sites and Tentative List:*

There are two designated World Heritage sites in Ireland and a number of other significant examples have been included in a Tentative List (2022) that has been put forward by Ireland for inclusion. None of these designated or tentative sites are located within 20 km of the Project.

#### 14.2.6 Field Survey

Proposed development areas were surveyed on 22<sup>nd</sup> June 2020, 19<sup>th</sup> May 2021, 26<sup>th</sup> July 2021 and 3<sup>rd</sup> November 2021 and this included inspections of the Site, which includes the Site Access Road extending to the Site from the N22 road to the north and the Grid Connection Route. A windshield survey of the Turbine Delivery Route was also carried out. The surveyed lands were assessed in terms of historic landscape, existing land use, tree cover and the potential for the presence and survival of unrecorded archaeological and undesignated architectural heritage sites/features. The results of the field surveys are described within **Section 14.3.14** while annotated extracts from the photographic record are provided in **Appendix 14.1**.

#### 14.2.7 Consultation

During the scoping stage the Development Applications Unit provided a response on 19th April 2021 to the request for comment on the scoping report provided to it. This response did not include any content in relation to the Cultural Heritage resource.'

#### 14.2.8 Predicted Impacts on Archaeological, Architectural and Cultural Heritage

The following provides a summary of the criteria used to assess impacts in order to concisely outline the methodology specifically applied to the cultural heritage resource which has been informed by relevant EPA and ICOMOS guidelines (see **Section 14.2**).

### *Duration of Effect*

The duration of effects is assessed based on the following criteria:

- Momentary (seconds to minutes)
- Brief < 1 day
- Temporary <1 year
- Short-term 1-7 years
- Medium Term 7-15 years
- Long Term 15-60 years
- Permanent > 60 years
- Reversible: Effects that can be undone, for example through remediation or restoration

### *Quality of Effect*

The quality of an effect on the cultural heritage resource can be positive, neutral or negative:

- Positive Effect – a change which improves the quality of the cultural heritage environment, (e.g., increasing amenity value of a site in terms of managed access, signage, presentation or high-quality conservation/restoration and re-use of an otherwise vulnerable derelict structure)
- Neutral Effect – no change or effects that are imperceptible, within the normal bounds of variation for the cultural heritage environment
- Negative Effect – a change which reduces the quality of the cultural heritage resource, (e.g., visual intrusion on the setting of an asset, physical intrusion on features/setting of a site)

### *Type of Effect*

The type of effect on the cultural heritage resource can be direct, indirect or no predicted impact.

- Direct Impact – where a cultural heritage site is physically located within the footprint of the EIA Development, which will result in its complete or partial removal.
- Indirect Impact – where a cultural heritage site or its setting in the landscape is located within the environs of the EIA Development.
- No predicted impact – where the EIA Development will not adversely or positively affect a cultural heritage site.

### *Magnitude of Effect*

This is based on the degree of change, incorporating any mitigation measures, on a cultural heritage asset and can be negative or positive. The magnitude is ranked without regard to the value of the asset according to the following scale: High; Medium; Low and Negligible

and has been informed by criteria published in the International Council on Monuments and Sites *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (ICOMOS 2011) (**Table 14.1**).

#### *Value assessment criteria*

The evaluation of the values of cultural heritage assets used for the purposes of assessment is not intended as definitive, but rather an indicator which contributes to a wider judgment based the individual circumstances of each asset. The value of all known or potential assets that may be affected by development are ranked according to the following scale: Very High; High; Medium; Low; Negligible and Unknown. The factors for assessing the value of cultural heritage assets provided in **Table 14.2** have regard to the ICOMOS *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*<sup>10</sup> (ICOMOS 2011, 14.17). This guidance is intended as indicative and is used in combination with a consideration of the condition/preservation; documentary/historical significance, group value, rarity, visibility in the landscape, fragility/vulnerability and amenity value of the cultural heritage assets on a case-by-case basis. The values assigned to identified assets within the study areas were determined following the completion of the desktop research combined with subsequent site inspections and are presented in **Section 14.4** of this chapter.

#### *Significance of Effects*

The significance of effect can be described as Profound, Very Significant, Significant, Moderate, Slight, Not Significant or Imperceptible (**Table 14.3**) and is assigned based on the combined evaluation of effect magnitude and asset significance (**Table 14.4**).

**Table 14.1: Magnitude of Impact Assessment Indicators for Cultural Heritage Assets**

<b>Indicative factors for assessing the Magnitude of Impact on the Cultural Heritage Asset (after ICOMOS Guidelines 2011)</b>	
High	<p>Most or all key archaeological or architectural materials affected such that the resource is totally altered</p> <p>Comprehensive changes to setting</p> <p>Changes to most or all key historic landscape elements, parcels or components; extreme visual effects; fundamental changes to use or access; resulting in total change to historic landscape character</p> <p>Major changes to area that affect Intangible Cultural Heritage activities or associations or visual links and cultural appreciation</p>
Medium	<p>Changes to many key archaeological or historic building materials/elements such that the resource is clearly/significantly modified</p> <p>Considerable changes to setting that affect the character of a cultural heritage asset.</p> <p>Changes to the setting of a historic building, such that it is significantly modified</p>

<sup>10</sup> [https://www.iccom.org/sites/default/files/2018-07/icomos\\_guidance\\_on\\_heritage\\_impact\\_assessments\\_for\\_cultural\\_world\\_heritage\\_properties.pdf](https://www.iccom.org/sites/default/files/2018-07/icomos_guidance_on_heritage_impact_assessments_for_cultural_world_heritage_properties.pdf)

<b>Indicative factors for assessing the Magnitude of Impact on the Cultural Heritage Asset (after ICOMOS Guidelines 2011)</b>	
	Change to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, considerable changes to use or access, resulting in moderate changes to historic landscape character Considerable changes to area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation.
Low	Changes to key archaeological materials/historic building elements, such that the resource is slightly altered/slightly different Slight changes to setting of an archaeological monument Change to setting of a historic building, such that it is noticeably changed Change to few key historic landscape elements, parcels or components; slight visual changes to few key aspects of historic landscape; slight changes to use or access; resulting in limited change to historic landscape character Changes to area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation
Negligible	Very minor changes to key archaeological materials or setting Slight changes to historic building elements or setting that hardly affect it Very minor changes to key historic landscape elements, parcels or components; virtually unchanged visual effects; very slight changes to use or access; resulting in very small change to historic landscape character Very minor changes to area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation

**Table 14.2: Value Indicators for Cultural Heritage Assets**

<b>Indicative factors for assessing Value of Cultural Heritage Assets (after ICOMOS Guidelines 2011)</b>	
Very High	<i>Potential for International Significance which may include</i> World Heritage Sites (including Tentative List properties) Assets of acknowledged international importance Assets that can contribute significantly to international research objectives Intangible associations with individuals or innovations of international significance
High	<i>Potential for National Significance which may include</i> Nationally designated sites, buildings and landscapes of significant quality, rarity, preservation and importance Undesignated assets of the quality and importance to be designated Assets that can contribute significantly to acknowledged national research objectives Archaeological Landscapes with significant group value Intangible associations with individuals or innovations of national significance
Medium	<i>Potential for Regional Significance which may include</i> Designated or undesignated assets that can contribute significantly to regional research objectives, including buildings that can be shown to have exceptional qualities in their fabric or historical associations Conservation Areas and historic townscapes containing buildings that contribute significantly to its historic character Intangible associations with individuals or innovations of regional significance
Low	<i>Potential for Local Significance which may include</i> Assets compromised by poor preservation and/or poor survival of contextual associations Assets of limited value, but with potential to contribute to local research objectives Historic Townscape or built-up areas of limited historic integrity in their buildings and settings Intangible associations with individuals or innovations of local significance
Negligible	Assets with very little or no surviving archaeological interest Landscapes with little or no significant historical interest

Indicative factors for assessing Value of Cultural Heritage Assets (after ICOMOS Guidelines 2011)	
	Buildings or urban areas of no architectural or historical note; buildings of an intrusive character
Unknown	Assets whose importance has not been ascertained Buildings with some hidden (i.e., inaccessible) potential for historic significance

**Table 14.3: Significance of Effects (per EPA EIAR Guidelines 2022)**

Significance	Description
Imperceptible	An effect capable of measurement but without significant consequences
Not Significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight	An effect which causes noticeable changes in the character of the environment but without affecting its sensitivities
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
Significant	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
Very Significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment
Profound	An effect which obliterates sensitive characteristics

**Table 14.4: Significance of Effects (per EPA EIAR Guidelines 2022)**

<b>Magnitude of Impact</b>	<b>High</b>	Not Significant/ Slight	Moderate/ Significant	Significant/ Very Significant	Very Significant/ Profound
	<b>Medium</b>	Not Significant	Slight	Moderate/ Significant	Significant/ Very significant
	<b>Low</b>	Not Significant/ Imperceptible	Slight/ Not Significant	Slight	Moderate
	<b>Negligible</b>	Imperceptible	Not Significant/ Imperceptible	Not Significant/ Slight	Slight
		<b>Negligible</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
		<b>Value/Sensitivity of the Asset</b>			

### 14.3 BASELINE DESCRIPTION

#### 14.3.1 Introduction

The following sections presents summary details of the main periods within the Irish archaeological record with references to identified cultural heritage assets located within the study area around the wind farm site, turbine delivery and the Grid Connection Route Datasets have been interrogated and retrieved from current state and local authority sources and are considered accurate at the time of writing in March 2023. **Section 14.3.2** provides a chronological overview of the Site study area since prehistoric times and includes references to known archaeological monuments within the area. The published Archaeological Survey of Ireland inventory descriptions of these monuments are then

presented in **Section 14.3.3**. Other baseline information relating to the Site are presented in Sections **14.3.4** to **14.3.11** (inclusive) and baseline information on the Grid Connection Route and Turbine Delivery Routes have been collated in **Sections 14.3.12** and **14.3.13**.

### **14.3.2 The Wind Farm Site: Archaeological and Historical Background**

#### *Prehistoric Periods*

Until the recent identification of Palaeolithic human butchery marks on a bear bone recovered from a cave site in County Clare, the earliest recorded evidence for human activity in Ireland dated to the Mesolithic period (7000–4000 BC) when groups of hunter-gatherers lived on the heavily wooded island. The archaeological record indicates that these mobile groups tended to favour coastal, lake and river shores locations which provided a transport resource and also provided elements of their varied diet. They did not construct any settlements or monuments that have left any above ground traces although their presence in an area can often be identified by scatters of worked flints in ploughed fields or sub-surface traces of their settlements revealed during earth-moving undertaken as part of development works. The Neolithic period (4000-2400 BC) began with the arrival of agriculture and its establishment as the principal form of economic subsistence, which resulted in more permanent settlement patterns. As a consequence of the more settled nature of agrarian life, new site-types, such as substantial rectangular timber houses, field systems and various types of megalithic tombs, begin to appear in the archaeological record. There are no known archaeological sites dating to the Mesolithic or Neolithic periods located within 1 km of the Site.

Metalworking arrived in Ireland with the advent of the Bronze Age period (c. 2400–500 BC). This new technology introduced a new artefactual assemblage into the Irish archaeological record and this period was also associated with the construction of new monument types such as standing stones, stone rows, stone circles and fulachta fiadh. The development of new burial practices meant that the construction of funerary monuments such as cairns, barrows, boulder burials and tumuli or cists was a common practice during this period. The arrival of iron-working technology in Ireland saw the advent of the Iron Age (600 BC – 400 AD). Relatively little has been known about settlement patterns during this period until recent decades when the corpus of evidence has been greatly increased by the discovery of Iron Age sites during archaeological investigations undertaken as part of various development projects.

The Site contains one field boundary feature (CO057-006---) and an enclosure site (CO057-007---) both of which are located within Inchamore townland in the area between

Turbines 1 and 2 (**Figures 14.1 and 14.2**). These site types may potentially date to any period from prehistory onward and typically require archaeological excavation to determine their origin. The classification of 'field boundary' as an archaeological monument refers to field enclosures of potential antiquity and is often applied to remnant traces of walling sealed by bog growth. Isolated sections of such walling can be revealed by turf cutting works and may be an indication of the presence of wider field systems which may remain undetected below existing ground surfaces. They are often found associated with the remains of stone hut sites particularly within unimproved upland areas in western counties. The term 'enclosure' is applied to monuments with observable enclosing elements but have little or no other surviving diagnostic features that allow further classification. The field surveys carried out as part of this assessment included inspections of the locations of these two monuments within the Site and further details are provided in **Section 14.3.14**.

The surrounding 1 km study area also contains two sites of potential or likely Bronze Age date, and these comprise an unclassified megalithic structure (KE086-007----), located within a section of a forestry plantation c.460 m outside the north end of the Site and a *fulacht fia* (CO057-008007-) located c.550 m outside the south end of the Site (**Figure 14.1**) The megalithic structure and standing stone monuments are associated with funerary or other ritual activities while *fulacht fia* comprise burnt mounds or spreads that are typically interpreted as the remains of cooking sites. The presence of these monuments within the environs of the Site indicates the potential presence of an established Bronze Age population in the general area who were undertaking both ritual and domestic activities. The settlement sites during this period comprised one or more timber structures and the remains of their foundations and habitation deposits can survive beneath modern ground surfaces. There is also a cluster of recorded archaeological sites located within an area of Inchamore townland at distances of c.350 m-480 m outside the southern end of the Site and these comprise a field boundary (CO057-008001-), two enclosures (CO057-008004- and CO057-008005-) and four hut sites (CO057-008002-, CO057-008003-, CO057-008006- and CO057-008008-) (**Figure 14.1**). These sites may conceivably date to any period from prehistory onward and it is not possible to determine their origin without recourse to archaeological excavation.

A review of the landscape extending for 10 km from the Wind farm Site revealed the presence of various extant prehistoric monuments of probable Bronze Age origin which have likely ritual alignments across the wider landscape, and these comprise five stone circles, thirteen wedge tombs, two unclassified megalithic structures and one stone row (**Table 14.5 and Figure 14.7**). The methodology used to assess whether any examples

have direct alignments towards turbines within the Site, which may intrude on these alignments, entailed reviews of their archaeological inventory descriptions to determine their recorded alignments, and these were then analysed by cross-referencing each of the monuments' locations in relation to the Site. This review revealed that only one example, a wedge tomb (CO058-060----) located 2.25 m to the northeast of the nearest turbine (T4), has a recorded alignment facing towards the Site (**Figure 14.7**). The Archaeological Survey of Ireland record that this monument is in a ruinous condition within an area of cut away bog and appears to have been exposed by turf cutting. A review of aerial and satellite imagery of its general location revealed that it is located within private lands on the northwest side of a modern forestry plantation and that turf-cutting has continued within its close environs during recent decades. Wedge tombs consist of a long burial gallery formed by large stone slabs, sometimes with an antechamber or small closed end-chamber. They are generally broader and higher at the front, which tends to face towards the west and southwest directions. O' Brien<sup>11</sup> has noted that monuments such as wedge tombs were aligned towards the general direction of the setting sun in the general southwest quadrant during the darker months of the year.

**Table 14.5: Review of monuments with potential visual alignments within 10 km of Site**

Monument no.	Class	Condition (ASI)	Approx. distance from nearest turbine	Recorded Alignment (ASI)	Aligned towards Site?
CO058-060----	Megalithic tomb - wedge tomb	In ruins	2.25 km to NE	NE-SW	Yes
CO058-075----	Megalithic tomb - wedge tomb	Collapsed	1.8 km to NW	n/a	n/a
CO058-076----	Megalithic tomb - wedge tomb	Partially exposed in cutaway bog face	2.9 km to NE	E-W	No
CO068-005----	Megalithic tomb - wedge tomb	Extant but capstone displaced	7.9 km to S	NE-SW	No
CO069-003----	Megalithic tomb - wedge tomb	In ruins	5.1 km to S	ENE-WSW	No
CO069-014----	Megalithic tomb - wedge tomb	Extant but capstone displaced	6.9 km to SE	E-W	No
CO069-029----	Megalithic tomb - wedge tomb	Extant	8.7 km to SE	ENE-WSW	No
CO069-069----	Megalithic tomb - wedge tomb	Partial remains	3.8 km to SE	N-S	No
CO069-093----	Megalithic tomb - wedge tomb	Extant but capstone displaced	7.2 km to S	E-W	No
KE076-038----	Megalithic tomb - wedge tomb	Extant but partially sealed with field clearance material	3.7 km to NW	ENE-WSW	No

<sup>11</sup> O'Brien, W. (2012) *Iverni: A prehistory of Cork*. The Collins Press. pg 192-3

Monument no.	Class	Condition (ASI)	Approx. distance from nearest turbine	Recorded Alignment (ASI)	Aligned towards Site?
KE076-056----	Megalithic tomb - wedge tomb	Extant but capstone displaced	3.4 km to NW	E-W.	No
KE085-001----	Megalithic tomb - wedge tomb	Extant but partially buried in bog and in forestry	8 km to WNW	E-W	No
KE085-053001-	Megalithic tomb - unclassified	Possible megalith in ruinous condition	5.8 km to SW	n/a	n/a
KE086-007----	Megalithic structure	Irregular-shaped stone structure in forestry, possible megalith	0.67 km to N	E-W	No
KE094-095----	Megalithic tomb - wedge tomb	Extant but capstone displaced	10 km to SW	E-W	No
CO058-029----	Stone circle - five-stone	Extant but one stone missing	5.5 km to SE	E-W	No
CO069-013----	Stone circle - multiple-stone	Extant	7.7 km to SE	NNE-SSW	No
CO069-015----	Stone circle - multiple-stone	Partially collapsed	6.7 km to SE	NNE-SSW	No
CO069-026----	Stone circle - five-stone	Extant	8 km to SE	NE-SW	No
CO069-076----	Stone circle - five-stone	Extant	2.9 km to S	ENE-WSW	No
CO069-027----	Stone row	Extant	8.1 km to SE	NE-SW	No
KE086-009----	Stone pair	Extant	2.5 km to SW	NW-SE	No
CO058-007----	Stone pair	Extant	3.8 km to NW	ENE-WSW	No

### *Early Medieval to Post-Medieval Periods*

The early medieval period began with the introduction of Christianity to Ireland and continued until the arrival of the Anglo-Normans in the late 12th century (c. 400–1169 AD). While this period saw the emergence of the first phases of urbanisation around the larger monasteries and the Hiberno-Norse ports, the dominant settlement pattern continued to be rural-based and founded on an agricultural economy centred on enclosed farmsteads known as ringforts, with stone-built equivalents known as cashels. The early medieval church sites were often morphologically similar to ringforts but are often differentiated by the presence of features such as church buildings, graves, stone crosses and shrines. While there are notable early medieval ecclesiastic sites located within the Baile Bhúire and Gougane Barra areas in the wider landscape, there are no recorded examples within the study area.

There is one potential early medieval site located within the study area and this comprises a holy well (CO057-009----) in Inchamore townland at a distance of 670 m to the south of the Redline Boundary. Holy wells are common features within the Irish landscape and are

typically sited at natural springs with some examples simply formed by natural depressions that fill with water while others have stone-built surrounds which often date to recent centuries. The traditions and veneration associated with these sites may date to the earliest phase of Irish Christianity with the potential that they likely form a continuation of pre-Christian ritual activity. Many wells have associations with a saint's name and were the site of annual visitations, known as patrons or patterns, which were held on the named saint's day, a practice which still continues at some examples. The holy well waters are also typically associated with traditions ascribing them various curative properties.

The arrival of the Anglo-Normans in the late 12<sup>th</sup> century broadly marks the advent of the Irish high medieval period which continued to c.1400 and was followed by the late medieval period which extended to c.1550. These periods saw the continuing expansion of Irish urbanisation as many of the port cities developed into international trading centres and numerous villages and towns began to develop throughout the country, often within the environs of Anglo-Norman manorial centres which were defended by masonry castles. By the 15th century, the native Irish chieftains and lords began to construct tower-house castles within their own landholdings as centres of territorial control. In 1207, King John granted Richard de Cogan rights to an area taking in all or part of Muskerry much of which was still under Gaelic control at that time. The initial land grant for what was to become the barony of Múscraí dates to 1352 when lands on the Cork-Kerry border were the subject of grant from the English crown to Cormac McCarthy. It has been noted that much of the subsequently conquered lands within the region were concentrated along the Lee Valley and that many remote mountainous areas remained in Gaelic control<sup>12</sup>. There are no recorded late or high medieval monuments located within the study area.

The centuries following 1550 comprise the post-medieval period which continued into the middle of the 19th century and the period thereafter is often described as early modern. The early phase of the post-medieval period was a turbulent time in Ireland and included the mid-17<sup>th</sup> century Cromwellian Wars which resulted in extensive dispossession of forfeited Gaelic lands. The 17th century Down Survey records compiled following the latter period of conflict provide very little information on the two townlands that extend into the Redline Boundary (Inchamore and Milleeny). The annotated maps indicate that land use within the general area was dominated by rough mountain lands, pasture and woodlands. These maps typically only depict larger settlements as well as other significant features such as castles, churches, roads and bridges, none of which are shown within the general area around Inchamore and Milleeny. The Survey records that the lands within the Redline

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<sup>12</sup> Butler, W. A. (1910) 'The Barony of Muskerry'. *Journal of the Cork Historical and Archaeological Society*, Vol. 16, No. 86, p. 81-8.

Boundary were controlled by Catholic landowners in 1641, with David McTeigue Herlihy possessing Inchamore and William Oge Herlihy possessing Milleeny. The lands around Baile Mhic Íre, Baile Bhúirne and Cúil Aodha were subsequently granted to Sir John Colthurst who is named as the owner of Inchamore and Milleeny in the 1670 Survey records.

An agricultural boom in the late 18th and early 19th centuries saw a rise in prices for both Irish tillage and dairy produce which resulted in landlords investing in extensive land improvement works within their holdings to increase productivity. This included widespread land drainage works and enclosure of open lands into field systems that survive to the present-day. The post-medieval period saw the development of high and low status stone houses throughout the Irish countryside and rural settlement clusters at this time typically consisted of single-storey thatched cottages with associated farm buildings while two-storey farmhouses became more common during the 19th century. The settlement pattern throughout much of the rural landscape was greatly affected by the Famine period and its aftermath in the middle of the 19th century which saw the depopulation of many areas. The population records in the wider area region note a 32.7% drop in population in Baile Bhúirne and 35.1% drop in Cill na Martra between 1841 and 1851<sup>13</sup>.

*The Topographical Dictionary of Ireland*<sup>14</sup> provides descriptions of Irish parishes during the early decades of the 19th century and often provides information on contemporary land use patterns, historical events and the presence of archaeological sites and features of architectural heritage interest such as large country houses. The Site is located within the civil parish of Ballyvourney and Lewis's description of this area concentrates on the settlement of the same name but, while it contains no references to the townlands of Inchamore and Milleeny, it does note that other areas of the parish contained about 16,000 acres of rough pasture and moorland, which might be drained and brought into a state of profitable cultivation. Further details on the character of the Site and its environs during the 19<sup>th</sup> century are presented in the review of historical Ordnance Survey (OS) maps (**Section 14.4.10**).

The recorded archaeological monuments within 1 km of the Site include seven lime kilns which are a common feature in the Irish rural landscape with many dating to recent centuries although the potential exists that some examples may pre-date the post-medieval period. The recorded location of a trackway (KE086-002----) of potential antiquity is c.760 m outside the north end of the Site (**Figure 14.1**). The Archaeological Survey of Ireland inventory

<sup>13</sup> <https://www.corkcoco.ie/sites/default/files/2019-01/M%C3%BAscra%C3%AD%20Gaeltacht%20CMIP%20Final%20Draft%20Jan%202019.pdf>

<sup>14</sup> Lewis, S. (1837) *Topographical Dictionary of Ireland*. 2 Volumes, Lewis & Company, London

description for this monument notes that its recorded location is covered in forestry and is not visible at ground level, but the Record of Monuments and Places map<sup>15</sup> (Sheet KE086) indicates that it was aligned in a broadly east to west direction and this projected route does not extend within the Site.

### 14.3.3 Record of Monuments and Places

There are two recorded archaeological monuments located within the Site, which comprise an enclosure (CO057-007----) and a field boundary (CO057-006----), while there are a further 15 examples within the surrounding 1 km area, one of which has been classified as 'redundant record' by the Archaeological Survey of Ireland (KE076-071----) (**Figure 14.1**). None of these monuments are designated as National Monuments in State Ownership or Guardianship or have been assigned Preservation Orders but are afforded legal protection by their inclusion in the Record of Monuments and Places. The published Archaeological Survey of Ireland inventory descriptions of these monuments are presented in **Table 14.6**, which also provides their distances from the nearest proposed Development areas.

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<sup>15</sup> [https://archaeology.ie/sites/default/files/media/pdf/Archaeology-RMP-Kerry-Map-\(1998\)-0019.pdf](https://archaeology.ie/sites/default/files/media/pdf/Archaeology-RMP-Kerry-Map-(1998)-0019.pdf)

**Table 14.6: Recorded Archaeological Monuments within 1 km of Site**

Monument no.	Class	Townland	Archaeological Survey of Ireland inventory description	ITM E	ITM N	Approx. distance from nearest development area
CO057-006----	Field boundary	Inchamore	In rough hill grazing on bog, on a gentle S-facing slope, with a view across the valley to Carrignaspirroge. Traces of mainly curvilinear, relict, stone field boundaries (T 0.6 m; H 0.3 m) protrude above the surface of the bog in a roughly rectangular area (c. 150 m E-W; c. 70 m N-S). The relict walls disappear in level areas, where the bog is deeper.	512568	578626	190 m to northwest of T2 hardstand
CO057-007----	Enclosure	Inchamore	In rough hill grazing on bog, on a S-facing slope with views across a valley to Carrignaspirroge. A D-shaped area (6 m N-S) with the straight side at N (L 10.5 m), is defined by a mixture of large slabs and stones set beside the linear face of outcropping rock at N and elsewhere by the curving remains of a stone wall (T 0.65; H 0.5 m) protruding above the surface of the bog. The interior is partially covered with rushes.	512761	578718	150 m to north of T2 hardstand
KE086-007----	Megalithic structure	Derryreag	In a coniferous wood, on the NE-facing slopes of Inchamore Mountain. An irregular-shaped structure (1.75 m NE-SW; 1.4 m NW-SE) of boulder-type stones, roofed with stone lintels, on top of which is a mound of smaller stones. There is a small, partially collapsed chamber (H 1 m) within this structure with an entrance on the E side. Another similar structure (2 m N-S; 1.3 m E-W) lies c. 2 m to the S.	512529	579681	670 m north of T3 hardstand
KE086-002----	Road	Derryreag	In a mixture of rough hill pasture and forestry, on a SE-facing slope. In the 1930s Capt. D. B. O'Connell noted an ancient trackway here (SMR file). The area is obscured by dense forest and overgrowth and the trackway is not visible at ground level.	512805	580064	865 m north of T3 hardstand
CO057-008001-	Field boundary	Inchamore	In rough hill grazing on bog, on a S-facing slope, with views across the valley to Carrignaspirroge. A network of mainly curvilinear, relict, stone field boundaries (T 0.6 m; H 0.3 m), that protrude above the surface of the bog, occurs intermittently throughout a roughly rectangular area (c. 180 m E-W; c. 90 m N-S). Stone slabs set at right angles to the line of the wall are occasionally visible along stretches of the relict boundaries. The walls run on into the deeper bog in hollow or level areas. Four hut sites (CO057-008002-, CO057-008003, CO057-008006, CO057-008008-), two enclosures (CO057-008004-, CO057-008005-) and a fulacht fia (CO057-008007-) are within the field boundary network.	512440	577841	480 m south of Met Mast

Monument no.	Class	Townland	Archaeological Survey of Ireland inventory description	ITM E	ITM N	Approx. distance from nearest development area
CO057-008002-	Hut site	Inchamore	In rough hill grazing, on bog, on a S-facing slope and within a network of relict field boundaries (CO057-008001-). The remains of a D-shaped hut site (4.5 m N-S) defined by a curving stone wall (T 0.5 m; H 0.3 m) with a straight N side (L 4 m). The stone wall protrudes intermittently above the surface of the bog. The interior is raised (H 0.2 m) at the S to compensate for the hillslope. The linear wall at the N is incorporated into an E-W field wall.	512418	577828	510 m south of Met Mast
CO057-008003-	Hut site	Inchamore	In rough hill grazing, on bog, on a S-facing slope and within a network of relict field boundaries (CO057-008001-). The remains of a circular hut site (diam. 2.4 m) defined by a stone wall (T 0.6 m; H 0.4 m) which protrudes above the surface of the bog. The level interior is in pasture. Field walls about the hut site at the NW and the SE. An enclosure (CO057-008004-) is c. 15 m to the S.	512439	577847	480 m south of Met Mast
CO057-008004-	Enclosure	Inchamore	Within an area of field walls (CO057-008001-) in rough hill grazing on bog, on a S-facing slope with views across the valley to Carrignaspirroge. A right-angled, SW-facing corner is defined by the remains of a N-S (L 5 m) and an E-W (L 6 m) field wall and is enclosed at SW by a curving wall, all of which (T 0.55; H 0.4 m) protrude intermittently above the surface of the bog. There is a hut site (CO057-008003-) c. 15 m to the N.	512443	577835	495 m south of Met Mast
CO057-008005-	Enclosure	Inchamore	In rough hill grazing, on a terrace on a S-facing slope and within a network of field boundaries (CO057-008001-). A D-shaped area (12 m E-W) defined at the straight E side by a drystone wall (L 12 m; T 1 m at the base) narrowing as it rises to a height of 1.2 m. Elsewhere it is defined by the remains of a stone wall (T 1 m; H 0.3 m), protruding above the surface of the bog. The almost level interior is raised (H 0.4 m) at SW. There is a hut site (CO057-008006-) c. 6 m to the SW.	512500	577782	720 m south of Met Mast
CO057-008006-	Hut site	Inchamore	In rough hill grazing, on bog, on a S-facing slope and within a network of relict field boundaries (CO057-008001-). The remains of an oval hut site (2.8 m E-W; 2 m N-S) defined by a stone wall (T 0.5 m; H 0.2 m) which protrudes intermittently above the surface of the bog. An enclosure (CO057-008005-) is c. 6 m to the NE.	512495	577784	520 m south of Met Mast
CO057-008007-	Fulacht fia	Inchamore	In rough hill grazing and within a network of field walls (CO057-008001-). A horseshoe-shaped mound (7 m E-W; 6.1 m N-S; H 1 m) of heat-shattered	512595	577659	620 m south of Met Mast

Monument no.	Class	Townland	Archaeological Survey of Ireland inventory description	ITM E	ITM N	Approx. distance from nearest development area
			stones and charcoal-enriched soil. The opening (Wth 1.7 m) faces W. The S edge of the mound has been damaged due to recent drainage works.			
CO057-008008-	Hut site	Inchamore	In rough hill grazing, on bog, on a S-facing slope and within a network of relict field boundaries (CO057-008001-). The remains of an oval hut site (3.5 m E-W; 2.3 m N-S) defined by the lower courses of a drystone wall (T 0.55; H 0.75 m) which protrude above the surface of the bog. The wall is best preserved along the E arc. Rubble is scattered in the W half of the interior.	512444	577741	580 m south of Met Mast
CO057-005----	Lime kiln	Inchamore	No published description	512455	577587	715 m south of Met Mast
CO057-009----	Holy well	Inchamore	On the N side of a road, on a S-facing slope. Spring water emerges from the base of an earthen bank which is covered with ferns, briars and bushes. According to local information, this is a holy well and its water was used to cure animal ailments.	512272	577561	715 m southwest of Met Mast
CO057-010----	Lime kiln	Inchamore	No published description	512204	577539	860 m southwest of Met Mast
CO057-012----	Structure	Mileeny	No published description	513684	577663	950 m south of T5 hardstand
CO058-001----	Lime kiln	Derreenalig	On N side of laneway, built into slight break in slope. Roughly rectangular kiln (c. 6 m N-S; c. 8 m E-W; front H 3.8 m; rear H 0.6 m), partially collapsed. Front elevation (S) has lintelled recess (H 1.75 m; Wth 1.5 m; D 2.1 m), with sloping slabs to rear. Circular funnel (diam. c. 1.5 m) almost completely infilled.	514293	579793	950 m northeast of T4 hardstand

#### 14.3.4 Topographical Files of the National Museum of Ireland

The National Museum of Ireland's Topographical File archive, which is stored in the museum premises at Kildare Street, Dublin was inspected during the assessment and contains no files for any of the townlands within the study area.

#### 14.3.5 Aerial, Satellite and LiDAR Imagery

A review of online aerial/satellite images of the Site, including those published by the Ordnance Survey of Ireland, Google and Bing, revealed that the proposed turbine locations have been occupied by areas of heathland, improved fields and commercial forestry plantations since at least the 1990s. A study by the Heritage Council of Ireland<sup>16</sup> on the impacts of forestry plantation works on archaeological sites, including their surface and buried elements, has noted that the initial planting process involves a number of ground disturbance activities, such as ploughing, drainage, access roads and planting, that have the potential to destroy or severely impact any sites within the plantation. Further impacts are also likely to occur during the operational phase of the plantation through continued disturbance by extensive root systems, which will entwine with any sub-surface archaeological deposits or features with little or no potential of removal without causing their destruction. Additional impacts during subsequent harvesting and replanting processes were also noted. The study also concluded that given the impossibility of aerial reconnaissance and access constraints during field surveys, the potential for detecting unrecorded sites within forestry plantations is unlikely to be possible. However, the development and widespread use of LiDAR technology in recent years has allowed for the potential for reconnoitring forestry plantations through the use of aerial imagery that can screen out the forestry canopy and allows for the assessment of the presence of surface traces of potential archaeological sites, which can be visible as surface anomalies indicated the presence of features such as enclosing ditches, low mounds and partially levelled structures.

The LiDAR imagery of the Site commissioned by the Developer was made available for archaeological review as part of this assessment (**Figure 14.6**). The imagery encompasses the locations of all turbines as well as other infrastructure within the majority of the Site but it does not extend to the N22 road to the north. The imagery clearly outlines the extent of ground disturbance within the forestry plantations which is visible as close set, linear surface anomalies resulting from cultivation and drainage ground works. The imagery also shows the presence of linear land drains extending through areas of open heath as well as surface traces of ground works undertaken to create areas of improved grassland during modern land reclamation works. The detail on the imagery also depicts the uneven nature of the

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<sup>16</sup> Johnson, G. (1998) *Archaeology and Forestry in Ireland*. The Heritage Council of Ireland

ground terrain within areas of rocky heathland. No surface traces of potential unrecorded archaeological sites or architectural heritage structures were noted within the Site during the LiDAR review.

#### 14.3.6 Cork and Kerry County Development Plans

The current Records of Protected Structures for Counties Cork and Kerry, as published in the County Cork Development Plan 2022-2028 and the County Kerry Development Plan 2022-2028, do not list any structures or Architectural Conservation Areas located within the Site or within 1 km of its Redline Boundary.

#### 14.3.7 National Monuments in State Ownership/Care Cork

There are no designated National Monuments in State Guardianship or Ownership located within 10 km of the Site.

#### 14.3.8 National Inventory of Architectural Heritage

The National Inventory of Architectural Heritage does not list any structures, historic landscapes or gardens within the Site or within lands extending for 1 km from its boundary.

#### 14.3.9 Previous Archaeological Work in the Wider Area: Excavations Database

The Database of Irish Excavation Reports contains no entries for any archaeological investigations within the Site. It does contain an entry for archaeological monitoring of the construction of a 15-turbine wind farm in Inchee townland, Co. Kerry in lands located c.2.7 km to the west of the Site which notes that nothing of archaeological significance was encountered (Excavation Licence 05E0112<sup>17</sup>). However, the Archaeological Survey of Ireland description of two standing stones in that area indicates that they were discovered during that project, potentially after the compilation of the Database entry. Archaeological monitoring of ground works during the construction of another two wind farms in Inchincoosh and Lettercannon townlands, located 3 km to the west of the Site, revealed the presence of a previously unrecorded possible hut site and a possible collapsed megalithic tomb which were excluded from the development area (Excavation Licence 08E0437<sup>18</sup>). Archaeological test trenching of the location of a potential fulacht fia site in an area of Coomacullen townland located 1.9 km to the north of the Site revealed nothing of archaeological significance (Excavation Licence 97E0184<sup>19</sup>). A review of the results of archaeological assessments and site investigations undertaken during the development of wind farms located within 10 km of the Project was also carried out as part of the Cumulative impact assessment and the results are presented in **Section 14.6**.

<sup>17</sup> <https://excavations.ie/report/2005/Kerry/0013693/>

<sup>18</sup> <https://excavations.ie/report/2008/Kerry/0019629/>

<sup>19</sup> <https://excavations.ie/report/1997/Kerry/0002784/>

### 14.3.10 Ordnance Survey Maps

The first edition 6-inch Ordnance Survey (OS) map published in 1846 shows the majority of the lands within the Site occupied by open, vacant, marginal heathland (**Figure 14.4**). A now demolished small farm building and an associated cluster of surrounding irregular fields are shown within the western end of the Site. The former location of the farm building is outside the footprint of the Development within the Site and the nearest Development area to its location is the Turbine 2 hardstand located in forestry c.90 m to the west. The locations of all of the turbines and associated infrastructure are shown as vacant, open heathland on the map, apart from the substation location which is shown as a small vacant field c.140 m to the east of the farm building. The coverage of the 25-inch OS map (1888-1913 series) does not extend into the Site. The detail on the second edition 6-inch OS map, which was published in 1900, demonstrates that the only notable alteration to the layout of the Site during the second half of the 19<sup>th</sup> century was the expansion of the reclaimed fields within the lower ground in the central area and the construction of second farm building within the east end of the Site (**Figure 14.5**). This building is also outside the footprint of the Development within the Site and the nearest proposed construction area is an access road to the substation located c.130 m to the north (**Figure 14.3**). The layout of the former location of the farm building in the west end of the Site appears unchanged and no additional structures are indicated within its environs. No potential unrecorded archaeological sites were noted within the Site during the review of the historic OS maps.

### 14.3.11 Undesignated Cultural Heritage Assets

While encompassing the protected archaeological and architectural heritage resources, cultural heritage also includes various undesignated assets such as demesne landscapes and vernacular structures as well as intangible assets such as folklore, placenames and historical events and associations. As noted in **Section 14.3.10**, the review of historic OS maps revealed the presence of two farm buildings within the Site and neither of these are located within the Development footprint. No other buildings or structures of potential vernacular heritage significance were noted within the Site.

The Site extends into two townlands (Inchamore and Milleeny) which are the smallest unit of land division in the Irish landscape, and many may preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest. Townland boundaries were recorded and standardised by the Ordnance Survey (OS) during the 19th century and their names typically comprise anglicisations of their original Irish names which often refer to natural topographical features, past landowners and farming practices, but some may also indicate the presence of archaeological sites within the townland, e.g. lios or rath typically indicate

the presence of a ringfort while temple, saggart, termon or kill may record associations with a church site. The translations of the names of the two townlands that extend into the Site were sourced from the Placenames Database ([www.logainm.ie](http://www.logainm.ie)) and neither refer to potential archaeological sites (**Table 14.7**). The boundary between these two townlands is formed by a narrow stream which extends in a north to south direction through the centre of the Site.

**Table 14.7: Translation of Townland Names**

Townland	Irish Origin	Translation	Placename Database notes	Archaeological Indicator?
Inchamore	An Inse Mhór	'large river meadow'	Mentioned in an 18 <sup>th</sup> century registry of deeds	No
Milleeny	Na Millíní	'little hillocks'	Mentioned in an 18 <sup>th</sup> century registry of deeds	No

The online database of the Irish National Folklore Collection ([www.duchas.ie](http://www.duchas.ie)) was reviewed and it contains two entries relating to past activities in Inchamore and Milleeny townlands which are summarised below (**Table 14.8**).

**Table 14.8: Summary of recorded folklore accounts**

Source	Summary of Transcript	Observations
Síle Bean Uí Loingsigh	Provides an alternate origin for Milleeny placename which refers to the former presence of a grinding mill at the foot (south end?) of the townland.	This may be due to a mistranslation of the name or may alternatively refer to a milling activity within the south end of the townland, which is in the environs of Coolea
Diarmuid Ó hÉalaighthe	Records that Inchamore townland contained a number of small farm holdings with 2-room thatched cottages and refers to a clochan (hut site) in the west end of the townland where a herdsman formerly lived	The reference to a clochan may record the presence of a hut site of archaeological interest at an unknown location in the west end of Inchamore, perhaps associated with booleying farming activity in recent centuries. There are no construction works proposed in that area of the townland.

The proposed Development is located within the Múscraí Gaeltacht area with a number of settlement centres located within the wider landscape, e.g., Réidh na Doírí (Reenaree), Cúil Áodha (Coolea), Béal Átha an Ghaorthaidh (Ballingeary), Baile Bhúirne (Ballyvourney) and Baile Mhic Íre (Ballymakeera). The location has seen a general decline in population within the modern period and there are no settlement centres located within the Site or within 1 km of the Redline Boundary. The region also has notable associations with other intangible elements of the cultural heritage resource such as music, including Sean-nós singing, poetry and dance traditions. There are no institutions, such as local museums or other heritage centres, associated with the intangible cultural heritage of the area located within the Site or surrounding study area. The Cork County Council *Múscraí Heritage Plan*:

*conservation, management and interpretation plan 2018-2032*<sup>20</sup> identifies a range of assets and attributes considered to be of cultural heritage significance within the region, including specific assets considered to be of archaeological, architectural, historic, artistic and scientific interest. While the Plan does not purport to be an exhaustive list of such assets, it is noted that none of the identified examples are located in townlands within or adjacent to the Project.

#### 14.3.12 Grid Connection Route

The Grid Connection Route will extend for c.80 m through a green field area to the west of the onsite substation and will thereafter follow sections of existing forest tracks extending from the Site to the existing Ballyvouskill substation. The section of the study area centred on the Grid Connection Route comprises a 100 m wide corridor centred on the route and this contains one recorded archaeological site which is listed as a redundant record in the Sites and Monuments Record (KE076-071----) and is not included in the Record of Monuments and Places (**Figure 14.8**). The below Archaeological Survey of Ireland inventory description of this redundant record has been published on the National Monuments Service's Historic Environment Viewer and confirms that the Archaeological Survey of Ireland have concluded that a potential enclosure reported to them at this location does not warrant acceptance as an archaeological monument. The entry also states that this redundant record is not scheduled for inclusion on the next edition of the Record of Monuments and Places and the Historic Environment Viewer mapping contains no Zone of Notification around its location:

*KE076-071----*

*Class: Redundant record*

*Townland: DERRYREAG*

*Scheduled for inclusion in the next revision of the RMP: No*

*Description: Reported to the Archaeological Survey of Ireland as the location of a possible enclosure. This feature is located in forestry on sloping mountainside part of the Derrynasaggart Mountain range. Views are restricted because of the forestry, but the general aspect is towards the N towards the Paps Mountains. This is marked as a large D-shaped field on the Ordnance Survey 1<sup>st</sup> Edition map, and measures approximately 200m NE-SW, and 200m NW-SE. This has now been planted with forestry. It appears that the enclosing element is now a ditch, and has been widened and deepened by forestry works. At the SE side this is 3m wide and .1.5m deep. The drain on the north side of the site is of similar dimensions. The NE side (straight edge) is also a townland boundary between Derryreagh and Cummeenavrick. This is a 3m wide, 1.5m deep ditch along which a stream runs. It appears to have been widened as part of the forestry works. No trace of an*

<sup>20</sup> <https://www.corkcoco.ie/sites/default/files/2019-01/M%C3%BAscra%C3%AD%20Gaeltacht%20CMIP%20Final%20Draft%20Jan%202019.pdf>

*enclosing bank was noted. The evidence is not sufficient to warrant accepting this as the remains of an archaeological monument.*

A section of the Grid Connection Route within County Kerry follows an existing forestry road that extends outside the southern boundary of The Paps Archaeological Landscape as designated in the Kerry Development Plan 2022-2028<sup>21</sup> (**Figure 14.11**). The nearest section of this existing forestry road to this archaeological landscape is located c.30 m outside its boundary. This landscape is described as follows in the County Kerry Development Plan 2022-2028:

*According to legend The Paps are the earthly manifestation of the breasts (Paps) of the Mother Goddess Anu and would have been venerated as such throughout prehistory. The cairns on the summits of the mountains are likely to contain small passage tombs, while other features on the summit are also likely of similar date. The slopes of the mountains and surrounding area are littered with hut sites, enclosures, megalithic structures, triple banked barrow etc. While the locally important Christian focus at 'The City' in Gortnagane is likely to be of prehistoric origin also given the name Caher Crov Dearg and the likely association with the triadic mother goddess in the form Badb Catha or Raven of Battle. These sacred mountains and their surrounding archaeological, mythological and historic landscape are still venerated, albeit in Christian guise, to this day.*

There are no archaeological sites associated with this landscape located within the 100 m wide study area centred on the existing forestry road that the Grid Connection Route will follow in the area outside the boundary of this archaeological landscape.

There are no Protected Structures or structures listed in the National Inventory of Architectural Heritage located within the study area centred on the Grid Connection Route and it does not extend through any historic settlements or Architectural Conservation Areas. The existing forestry roads that the Grid Connection Route follows are shown as areas of vacant uplands on historic Ordnance Survey mapping. No potential unrecorded archaeological sites or other cultural heritage assets were noted in the environs of the route.

### 14.3.13 Turbine Delivery Route

The Turbine Delivery Route will extend along the existing public road network from Ringaskiddy, Co. Cork to the Site entrance on the N22 road and will thereafter extend along an existing forestry road that forms the Site Access Road. The only recorded cultural heritage asset located within the environs of this section of the route along the Site Access Road is the redundant record (SMR KE076-071----) described in **Section 14.3.12** above. This is located within a forestry plantation in the lands to the west of the existing forest track

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<sup>21</sup> <https://consult.kerrycoco.ie/sites/default/files/4%20Archaeological%20Landscapes.pdf>

that will form the delivery route. The other recorded archaeological sites within the 100 m wide study area corridor centred on the Turbine Delivery Route to Ringaskiddy comprise thirteen examples which are all located within adjoining private lands, and none contain any elements that extend into the public road network which will form the Turbine Delivery Route (**Table 14.9** and **Figure 14.10**). In addition, none of these archaeological sites are listed as National Monuments in State Care. The recorded sites within the study area are located within private properties adjacent to the public roads and no works to facilitate the delivery of turbines to the Site are proposed at their locations or environs. The reviewed study area also contains a number of archaeological sites which were uncovered during archaeological investigations carried out as part of the construction of the Ballincollig Bypass. These sites were completely excavated in advance of the construction of the bypass and no longer remain within the study area.

The 100 m wide study area corridor centred on the Turbine Delivery Route also contains thirteen designated architectural heritage structures, all within County Cork, which are listed in the Record of Protected Structures or are included in the National Inventory of Architectural Heritage (**Table 14.10** and **Figure 14.9**). The Turbine Delivery Route does not extend through any designated Architectural Conservation Areas. The study area includes two road bridges that are listed in the Record of Protected Structures, and these comprise Laney Bridge (RPS 0835) in the eastern outskirts of Macroom and Athsellis Bridge (RPS 0545) in Carrigderry townland (**Figure 14.9**). The Turbine Delivery Route does not extend across either of these bridges. The remainder of the other designated architectural structures within the study area are located within private properties adjacent to the public roads and no works to facilitate the delivery of turbines to the Site are proposed within any of these properties.

**Table 14.9: Recorded Archaeological Sites within 100 m corridor centred on TDR**

Monument no.	Class	Townland	ITM E	ITM N
CO058-002----	Kiln - lime	AN DOINAN ALAINN	515024	579449
CO058-045----	Ringfort - rath	BAILE MHIC IRE	522175	576675
CO058-051----	Fulacht fia	TONN LAIN	523052	575787
CO058-079----	Burnt mound	TONN LAIN	522582	576314
CO070-012----	Standing stone	CASIL AN BHUACAIGH	526192	574325
CO070-079----	Standing stone	INCHINLINANE	527840	573632
CO071-015----	Souterrain	BEALICK	535203	572930
CO071-016----	Mill - corn	BEALICK	535262	572862
CO083-069----	Fulacht fia	CLODAH	541404	566803
CO083-070----	Standing stone	CLODAH	541685	566670
CO083-140----	Bridge	CARRIGDARRERY	538949	568062
CO073-071----	Cave	CARRIGANE	555141	569905
CO073-137----	Burnt mound	CURRAHEEN	560815	569368

**Table 14.10: Designated Architectural Heritage structures in 100 m corridor centred on TDR**

Designation	Name	Townland	ITM E	ITM N
RPS 0835	Laney Bridge	Bealick	535274	572790
NIAH 20907102	Firville House	Bealick	535219	572890
NIAH 20907106	House	Coolcour	535810	570708
RPS 0545	Athsellis Bridge	Carrigderry	538948	568062
NIAH 20908319	Monument	Ballymichael	540705	566844
NIAH 20908326	Crookstown House gate	Inchirahilly	542637	566711
NIAH 20908403	Horan's Bar	Inchirahilly	544234	567381
RPS 0553	Rosemount House	Currahaly	548761	568947
NIAH 20907221	House	Currahaly	549560	569133
NIAH 20907226	House	Knockanemore	553105	570136
NIAH 20907308	Srelane House	Knockanemore	553610	570265
NIAH 20987029	Church of the Immaculate Heart of Mary	Shanbally	575595	564469
NIAH 20987044	The Oratory	Ringaskiddy	578224	564274

#### 14.3.14 Field Work

The Project location, including the Site, Grid Connection Route and Turbine Delivery Route from the N22, was inspected in clear weather conditions by the author on 22<sup>nd</sup> June 2020, 19<sup>th</sup> May 2021, 26<sup>th</sup> July 2021 and 3<sup>rd</sup> November 2021. These inspections included field walking surveys of the locations and environs of all turbines and associated infrastructure, as well as the locations of known archaeological monuments within the Site. The purpose of the field surveys was to assess the potential for direct and indirect impacts on the locations and settings of known monuments, to establish if any unrecorded features of cultural heritage interest exist at proposed Development locations and to appraise the potential for the presence of sub-surface archaeological sites or features at these locations.

The results of the field survey are presented below in table formats which include descriptions of the results of the inspection of known archaeological monuments within the Site (**Tables 14.11** and **14.12**). Descriptions of two potential previously unrecorded archaeological features noted during inspections of the lands c.40 m to the north of Turbine 2 are provided in **Table 14.13** and their locations are shown on **Figure 14.2**. These features comprise an upright stone and a nearby small arc of surface stones which may form the remains of a potential hut site and both are located at distances of 30 m outside the Site. While the potential exists that both of these features are non-archaeological in origin, their locations were provided to the Project design team at an early stage in the design process to ensure that they will be avoided, and both will be retained *in situ*.

Two farm buildings are shown within the Site on the historic OS maps. The farm building in the west end of the Site has been levelled and a later concrete-surfaced farmyard, which

also contains a number of semi-derelict outbuildings of 20th century appearance is now located in the area to the north and is shown on **Figure 14.1**. This farmyard is not indicated on the historic OS maps and does not contain any features deemed to be of any architectural or vernacular heritage merit. An overgrown, derelict farmhouse occupies the location of the farm building depicted in the east half of the Site on the second edition 6-inch map and it appears to have been abandoned in recent decades (**Figure 14.3**). While this late 19<sup>th</sup> century building does not comprise a well-preserved structure of architectural heritage merit it is considered to be of likely local (low) vernacular heritage interest.

Descriptions of the inspections of the turbine locations and associated infrastructure within the Site are presented in **Table 14.14**, which also collates information gathered during reviews of historic mapping as well as aerial/satellite (OSI and Google Earth) and LiDAR imagery for each location.

**Table 14.11: Collated information on Field Boundary CO057-006----**

Recorded Monument	Class	Townland	Recorded ITM (ASI)	Confirmed ITM
<b>CO057-006----</b>	Field Boundary	Inchamore	512568, 578626	512568, 578626
ASI Description	<i>In rough hill grazing on bog, on a gentle S-facing slope, with a view across the valley to Carrignaspirroge. Traces of mainly curvilinear, relict, stone field boundaries (T 0.6 m; H 0.3 m) protrude above the surface of the bog in a roughly rectangular area (c. 150 m E-W; c. 70 m N-S). The relict walls disappear in level areas, where the bog is deeper.</i>			
Survey Notes	The visible surface expression of the field boundary is orientated north-northwest to south-southeast (NNW-SSE) and comprises a c.50 m long section of a drystone wall footing (c. 40cm-60cm wide) which extends 10cm-30cm above existing ground surface. This likely forms the west end of the rectangular area described by the Archaeological Survey of Ireland and is located c.250 m to the northwest of T2. The visible northern section of this section extends to an area of natural bedrock outcrop and terminates at the margin of a level area of upland heath. There was no visible surface trace of any walling extending to the east or west of this area, which is dominated by bedrock outcropping, and the potential exists that the wall either terminates at this point or continues beneath the existing ground surface within the area of upland heath to the north. The southern end of the visible section of the wall has been truncated by an east-west land drain (c.1 m wide) and an inspection of the drain section in this area revealed that the wall stones extend c.40cm below existing ground surface and appear to rest on the surface of the underlying natural subsoil. A number of surface stones which may form part of the wall are visible for c. 2 m to the south of the drain and no visible traces were observed thereafter. The land drain continues to the east for a distance of c.145 m from the point where it intersects with the north-south section of wall along a slightly curvilinear course before it turns to the south and extends into forestry. It is noted that the length of the east-west section of this drain extending from its intersection with the visible section of the field boundary corresponds to the length of the east-west section of the field boundary described in the above archaeological inventory entry. The drain is flanked on the southern side by a low deposit of stones and soil which may form part of the east-section of the field wall noted in the inventory entry, although the potential that this deposit actually represents upcast material from the drain which was interpreted as a field wall is noted. No surface traces of the field boundary were noted extending towards the location of any proposed construction area within the Site.			

**Table 14.12: Collated information on Enclosure CO057-007----**

Recorded Monument	Class	Townland	Recorded ITM (ASI)	Confirmed ITM
CO057-007----	Enclosure	Inchamore	512761, 578718	512761, 578718
ASI Description	<i>In rough hill grazing on bog, on a S-facing slope with views across a valley to Carrignaspirroge. A D-shaped area (6 m N-S) with the straight side at N (L 10.5 m), is defined by a mixture of large slabs and stones set beside the linear face of outcropping rock at N and elsewhere by the curving remains of a stone wall (T 0.65; H 0.5 m) protruding above the surface of the bog. The interior is partially covered with rushes.</i>			
Survey Notes	This site survives as described by the Archaeological Survey of Ireland and comprises a small enclosure with a low surface expression that is not visible at ground beyond its immediate environs. The northern side of the enclosure has been constructed against a natural rock outcrop which supplements the enclosing element on this side and screens its location entirely from the east. The drystone wall contains stones of varying size and shape with a number of large, upright angular 'orthostat' type stones forming the north-western enclosing element, while elsewhere, a mix of large horizontal slabs and smaller sub-rounded stones are present. The extant walls measure between 0.6 m and 1.2 m in width and between 0.4 m and 1.1 m in height. While there are a number of narrow gaps in the east and west sides it is unclear whether any these comprise an entrance feature or are the result of localised overgrowth or collapse of the walling. The interior of the enclosure slopes gently downwards to the east and is grass covered with areas of rush growth. The size and layout of the enclosure is not suggestive of an early medieval cashel monument, and the potential exists that it may have functioned as a small animal pen associated with historical transhumance farming activity. The site is located c.130 m from the nearest element of the Development which comprises the Turbine 2 hardstand to the south.			

**Table 14.13: Potential unrecorded archaeological sites identified during field survey**

Feature Type	ITM	Description
Potential Hut	512856, 578650	Situated a gentle slope approximately 100 m downslope and to the southeast of enclosure (CO057-007----), the possible footing of a hut site was noted during field inspections. It comprised an arc of loose stones measuring c.2.5 m in length (NE-SW) containing one to two stones forming a feature measuring c.0.4 m to 0.5 m in width. The stones were only evident to a maximum height of c.0.3 m above ground level but grass growth and sod formation may obscure further traces. If these stones do form the basal remains of a potential hut site, a projection of the visible arc is suggestive of a feature measuring 2 m-2.5 m in diameter. The interpretation of this feature as being of potential archaeological origin is tentative as it is located within a large glacial scatter of surface stones and is abutted by prone stones in all directions. No clearance activity appears to have been carried out in its environs and the potential that it comprises a random arrangement of stones within this area is considered possible.
Upright Stone	512840, 578643	Another potential archaeological feature was noted c.18 m to the southwest of the potential hut site described above and this comprises an upright stone within the same glacial scatter of surface stones. The long axis of the stone is aligned in a northwest to southeast direction, it measures a maximum height of 1.68 m, a maximum width at base of 0.88 m and tapers to width of 0.2 m near the top. The thickness of the stone also tapers inwards towards its top with a thickness of 0.6 m at base and 0.2 m at top. While the slight potential exists for this to be a prehistoric standing stone, its alignment does not correspond to the northeast to southwest alignment of the majority of such monuments and its presence within a glacial stone scatter may be suggestive of a natural origin.

**Table 14.14: Field survey results**

Development Element	Townland	Distance to nearest archaeological site	1 <sup>st</sup> edition 6-inch OS map	Aerial/Satellite and LiDAR images	Field Survey Notes
Turbine 1	Inchamore	Enclosure located c. 450 m to southeast (CO057-007----	Map shows the location of turbine, hardstand and access road as vacant marginal land.	Shown within area of vacant rocky land on aerial images. No potential archaeological sites or built structures were noted at the location during a review of LiDAR imagery	Location comprises an area of open heathland on a large rocky ridge. The access road will extend to its location from T3 to the east across an area of rocky heath and an area of improved grassland at east
Turbine 2	Inchamore	Enclosure located c. 110 m to north of hardstand (CO057-007----	Map shows the location of turbine, hardstand and access road as vacant marginal land. A farmyard is shown c.90 m to the east of the nearest section of the hardstand	Shown within a forested area with grassland at north end of hardstand. No potential archaeological sites or built structures were noted at the location during a review of LiDAR imagery	<p>The turbine and southern end of hardstand are within a commercial forestry plantation while the north end of the hardstand and access route extend through semi-improved pasture. A visual appraisal of the plantation indicated that the underlying ground surface has been heavily disturbed by tree growth and cultivation works. The grassland area at the north end of the hardstand is marginal in quality with machine cut drains along the edges. There are frequent surface stones in the areas outside the improved grassland which appear geological in origin but may also include stones from early modern field clearance activity.</p> <p>The access route to the north end of the turbine will cross a narrow stream, which appears to have been recut by machine. The stream was nearly dry at the time of inspection and no potential fords, stepping stones or other features of cultural heritage potential were noted. The proposed crossing will entail a clear span structure and no in-channel works will be required.</p>
Turbine 3	Inchamore	Enclosure located c. 370 m to southwest (CO057-007----	Map shows the location of turbine, hardstand and access road as vacant, unenclosed marginal land.	Majority of hardstand is shown within forestry on aerial images while turbine and north end of hardstand are within an area of vacant heath land. Access route to northeast is within forestry while routes to west and southwest extend through marginal lands. No potential archaeological sites or built	Majority of hardstand shown within forestry on aerial images while turbine and north end of hardstand are within an area of disturbed marginal land. Access route to northeast is within forestry while routes to west and southwest extend through marginal lands.

Development Element	Townland	Distance to nearest archaeological site	1 <sup>st</sup> edition 6-inch OS map	Aerial/Satellite and LiDAR images	Field Survey Notes
				structures were noted at the location during a review of LiDAR imagery	
Turbine 4	Milleeny	Enclosure located c. 895 m to southwest (CO057-007----)	Map shows the location of turbine, hardstand and access road as vacant, unenclosed marginal land.	Shown within forestry on aerial images. No potential archaeological sites or built structures were noted at the location during a review of LiDAR imagery	Located within an area of forestry on a west-facing slope. The ground surface has been heavily disturbed by tree roots and forest cultivation.
Turbine 5	Milleeny	Enclosure located c. 1,110 m to west (CO057-007----)	Map shows the location of turbine, hardstand and access road as vacant, unenclosed marginal land.	Shown within forestry on aerial images. No potential archaeological sites or built structures were noted at the location during a review of LiDAR imagery	Located within an area of forestry on a west-facing slope. The ground surface has been heavily disturbed by tree roots and forest cultivation.
Site Compound	Inchamore	Enclosure located c. 760 m to southwest (CO057-007----)	Map shows the location as vacant, marginal land.	Shown within forestry on aerial images. No potential archaeological sites or built structures were noted at the location during a review of LiDAR imagery	Located within a level area within forestry plantation. The ground surface has been extensively disturbed by tree planting
Substation	Inchamore	Enclosure located c. 440 m to west (CO057-007----)	Map shows small fields at location which are associated with a farm building located 140 m to west of substation	Shown within vacant field on aerial images. No potential archaeological sites or built structures were noted at the location during a review of LiDAR imagery	Recent forestry plantation ground preparation works were visible within the field containing the proposed substation location at the time of inspection and this included linear, machine excavated land drains. No potential archaeological or architectural heritage structures were noted at the location. The existing farmyard c.100 m to the west is not indicated on the historic OS maps and contains a number of small 20 <sup>th</sup> century outbuildings. No remains of the farm building shown in the area to the south of the yard on the 1 <sup>st</sup> edition 6-inch OS map were identified. No features of vernacular heritage significance were noted within the existing yard. It is accessed from a farm lane to the south which is outside the proposed development areas within the site. The second farm building shown in the east end of the Site on the second edition 6-inch OS map survives extant and comprises an overgrown

Development Element	Townland	Distance to nearest archaeological site	1 <sup>st</sup> edition 6-inch OS map	Aerial/Satellite and LiDAR images	Field Survey Notes
					<p>farmhouse that appears to have been abandoned in recent decades.</p> <p>The access route to the substation will cross a narrow stream, which forms the boundary between Inchamore and Milleeny townlands. The stream comprised a moderately flowing, shallow channel, averaging c.1 m in width by 0.5 m in depth, at the time of inspection and no potential fords, steeping stones or other features of cultural heritage potential were noted. The proposed crossing will entail a clear span structure and no in-channel works will be required.</p>
Met Mast	Inchamore	Hut site located c.480 m to south (CO057-008003-)	Map shows the location as vacant, marginal land.	Shown within forestry on aerial images. No potential archaeological sites or built structures were noted at the location during a review of LiDAR imagery	The location of the met mast and proposed access road from the northeast remain occupied by a forestry plantation. An inspection of the area revealed that the ground surface has been disturbed by forestry plantation works and tree root activity.
Grid Connection	Various	<p>Redundant record (KE076-071----) located within an area of route using horizontal directional drilling.</p> <p>The nearest section of the boundary of the Paps Archaeological Landscape as designated in the Kerry County Development 2022-2028 is located c.30 m the north of an existing forestry track which occupies the grid route in the</p>	Map shows the route extending through as vacant uplands.	The forestry roads and adjacent plantations along the route are visible on aerial images from the 1990s onward. The imagery indicates that the southern section of the forest road extending to the Site on the south side of the N22 was constructed post-2005. The route extends outside the LiDAR coverage of the Site	No potential unrecorded features of archaeological, architectural or cultural heritage interest were noted during inspections of the localised green field areas along the section of the route to the west of the proposed substation within the Site. The construction of the existing forestry tracks has resulted in the reduction of ground surface along the route and adjoining lands on both sides have been disturbed by forestry plantations. The forest tracks extend across three small streams within the plantation to the north of the N22 and the use of horizontal direction drilling under these watercourses will not require any in-channel works. The location of redundant record (KE076-071----) is within an inaccessible forestry plantation. The use of horizontal direction drilling in this area will not require any trench excavations at its location.

Development Element	Townland	Distance to nearest archaeological site	1 <sup>st</sup> edition 6-inch OS map	Aerial/Satellite and LiDAR images	Field Survey Notes
		area to the north of the N22			
Borrow Pit	Milleeny	Lime kiln located c.980 m to north (CO058-001----)	Map shows the location as vacant, marginal land.	Shown within forestry on aerial images. No potential archaeological sites or built structures visible on LiDAR imagery.	Localised mechanised ground works were ongoing within the southern end of area during the inspection and appeared to be associated with the extraction of bedrock material. The remainder of the proposed borrow pit location was occupied by forestry
Turbine Delivery Route	Derryreagh and Derreenaling	Redundant record (KE076-071----) located within adjoining forestry to west of Site access Road section. As detailed in Tables 14.9 and 14.10, there are various cultural heritage assets located within properties adjacent to the public roads that form the section of the route to Ringaskiddy	Map shows the route extending through as vacant lands and roadways.	The imagery indicates that the southern half of the forest road extending to the Site on the south side of the N22 was constructed post-2005. The forest road in the north end of the route is present on imagery from the 1990s. Location of route extends outside the LiDAR coverage. The public roads along the route to Ringaskiddy are visible on the reviewed aerial and satellite images, including recent images of the Macroom bypass	The route from the N22 to the north of the Site extends along existing stone surfaced forest roads which are flanked by drains and adjacent sections of the forestry plantations. No potential features of cultural heritage interest were noted within the environs of the route. A windshield survey of the public roads extending to Ringaskiddy revealed no elements of the cultural heritage resource extending into the road carriageways that will be used to transport turbines to the Site.

### 14.3.15 Summary

There are two recorded archaeological sites within the Site, and these comprise a field boundary (CO057-006----) and a small, stone-built enclosure (CO057-007----). The identified remains of these sites are located at respective distances of 190 m and 150 m from the Turbine 2 hardstand location. There are an additional 15 recorded archaeological sites within lands extending for 1 km from the Site and none of these are located within 480 m of any proposed construction areas (**Table 14.6** and **Figure 14.1**). All of these external archaeological sites are located within private lands not accessible to the public and none have been designated as National Monuments in State Care. Two features of archaeological potential, an upright stone and a potential hut site, were identified during the field surveys carried out as part of this assessment (**Table 14.13**). While these are only tentatively interpreted as being of potential archaeological origin, both are located c.30 m outside the Redline Boundary and will be retained *in situ* (**Figure 14.2**)

There are no designated architectural heritage structures located in the Site or within the lands extending for 1 km outside its Redline Boundary. No potential undesignated features of architectural heritage interest, such as country houses with associated designed gardens/demesne lands, are located within the Site or within 1 km of the Redline Boundary. The derelict remains of a farmhouse shown within the east end of the Site on the second edition 6-inch OS map (1900) survives extant and is a structure of vernacular heritage interest. No proposed construction areas are within 110 m of its location, and it will be retained *in situ* within the Site (**Figure 14.3**).

The Grid Connection Route extends through the location of a redundant record listed in the Sites and Monuments (KE076-071----). The Archaeological Survey of Ireland have concluded that this record does not warrant acceptance as an archaeological monument and it is not scheduled for inclusion in the next edition of the Record of Monuments and Places (see **Section 14.3.12**). It is located within a forestry plantation to the south of the N22 road and the proposed methodology for the section of the Grid Connection Route will entail horizontal directional drilling under its location and will not require any trench excavations (**Figure 14.8**). There are no other recorded archaeological sites or any architectural heritage structures located within the 100 m wide corridor centred on the Grid Connection Route. A section of the route in the area to the north of the N22 follows an existing forestry road that extends outside the southern boundary of The Paps Archaeological Landscape as designated in the County Kerry Development Plan 2022-2028<sup>22</sup> (**Figure 14.11**).

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<sup>22</sup> <https://consult.kerrycoco.ie/sites/default/files/4%20Archaeological%20Landscapes.pdf>

The Turbine Delivery Route to the Site entrance on the N22 road will extend along the public road network from Ringaskiddy, Co. Cork. The route will thereafter extend to the Site along an existing forestry road from the N22 road. The only recorded cultural heritage asset located within the environs of this section of the route is the redundant record (SMR KE076-071----) described in **Section 14.3.12**. This is located within a forestry plantation in the lands to the west of the existing forest track that will form the delivery route. The remainder of the route from Ringaskiddy to the Site will extend along public roads. There are various recorded archaeological sites and designated architectural heritage structures located within the reviewed 100 m study area corridor centred on these roads and none contain any elements that extend into the road carriageways (**Tables 14.9 and 14.10 and Figures 14.9 and 14.10**).

- a. The known archaeological sites within the study area are commonly found within the Irish landscape, are located within inaccessible private lands and retain no discernible amenity or tourist attributes. Their current condition as well as potential sensitivities to indirect impacts of a visual nature, have been assessed based on their classifications, designations, inventory descriptions, reviews of historical maps and modern aerial/satellite images and the ICOMOS guidelines summarised in **Table 14.2** of this chapter. The values assigned to these archaeological sites are identified in **Tables 14.15 and 14.16**. It should be noted that many archaeological sites, including levelled examples, have the potential to possess subsurface features, artefacts and other archaeological remains, that may be of High or Very High values, but this cannot be ascertained without recourse to archaeological excavation, and these are attributes unlikely to be subject to effects in the absence of direct impacts.

## 14.4 ASSESSMENT OF POTENTIAL EFFECTS

### 14.4.1 Construction Phase – Direct Impacts

The construction phase will result in no predicted direct impacts on the two recorded archaeological monuments located within the Site (Field Boundary CO057-006----and Enclosure CO057-007----) neither of which are located within 150 m of any proposed construction areas. An upright stone and a small arc of ground stones noted c.40 m to the north of the T2 hardstand during the field surveys are deemed to be potential archaeological features, but this interpretation is intended as tentative (see **Table 14.13 and Figure 14.2**). Both of these potential archaeological features are located c.30 m outside the Redline Boundary and will remain *in situ* outside the Site. There are no designated architectural structures located within the Site and no undesignated features of cultural heritage interest

were identified at any proposed construction areas. The remains of a farm building within the east end of the Site, which is indicated on the second edition OS map (published 1900), will be avoided and retained *in situ*. The boundary between Inchamore and Milleeny townlands comprises a small stream that extends north to south through the central area of the Site. There will be one crossing over this stream to facilitate access to the onsite substation and this will entail a clean span bridge which will require no in-channel works. It is, therefore, concluded that the construction phase will not result in any direct impacts on any identified elements of the cultural heritage resource.

The locations of T2, T4 and T5, and their associated hardstands and sections of access routes, as well as the site compound and met mast locations are within forestry plantations. The cultivation and drainage ground works combined with the subsequent development of root networks within such plantations result in extensive ground disturbance which has a high potential to have removed or severely degraded any unrecorded archaeological features at these locations. While there is a low potential for the presence of unrecorded, archaeological sites within the forested locations, the potential for the survival of elements of unrecorded archaeological remains cannot be completely discounted. The potential for the presence of sub-surface archaeological sites and artefacts exists within the areas of improved pasture and heathlands within the Site and these comprise T1, an area of the T2 hardstand, T3 and the substation as well as sections of the access roads to their locations. While the existence as well as the location, extent and nature of such unrecorded, sub-surface archaeological remains are indeterminable the potential exists for direct, negative impacts on any such remains that may exist within Development areas and this will require mitigation. The Development will not require in-channel works within any watercourses and will have no predicted impacts on any potential underwater archaeological remains.

The majority of the Grid Connection Route from the existing Ballyvouskill substation extends along existing forestry tracks with a localised section utilising horizontal directional drilling under streams and the environs of the N22 road as well as a section extending through a green field area to the west of the proposed onsite substation. The Grid Connection Route extends through the location of a redundant record listed in the Sites and Monuments Record (KE076-071----). The Archaeological Survey of Ireland have concluded that this record does not warrant acceptance as an archaeological monument and it is not scheduled for inclusion in the next edition of the Record of Monuments and Places. It is located within a forestry plantation to the south of the N22 road and the proposed methodology for the section of the Grid Connection Route entail horizontal directional drilling under its location and will not require any trench excavations (**Figure 14.8**). There are no other recorded

archaeological sites within a 100 m corridor centred on the Grid Connection Route. A section of the route in the area to the north of the N22 follows an existing forestry road that extends outside the southern boundary of The Paps Archaeological Landscape as designated in the County Kerry Development Plan 2022-2028<sup>23</sup> (**Figure 14.11**). The Grid Connection Route does not extend into this landscape and the cable trench will be excavated within areas previously disturbed by the construction of the existing forestry roads.

There are also no designated or undesignated architectural heritage structures, such as historic masonry bridges, located within 100 m of the Grid Connection Route. The existing forestry track along the section of the route to the north of the N22 crosses three small streams and the proposed use of horizontal directional drilling under these watercourses will result in no direct in-channel impacts. The Grid Connection Route will, therefore, result in no predicted direct impacts on the archaeological, architectural and cultural heritage resources.

The Turbine Delivery Route from Ringaskiddy, County Cork to the Site entrance on the N22 road will entail the use of the existing public road network. While there are various cultural heritage assets located within the 100 m study area corridor centred on this route (**Tables 14.9 and 14.10 and Figures 14.9 and 14.10**), none contain elements that extend into the road carriageways and the transport of turbines from Ringaskiddy to the Site will not result in any predicted direct impacts on the cultural heritage resource. The section of the Site Access Road route from the N22 follows an existing forestry road in this area and the only recorded archaeological site within a 100 m wide corridor centred on this section of the route is the redundant record (KE076-071----) located within the forestry plantation to the west (**Figure 14.8**). Any required upgrading works to this track to facilitate the delivery of turbines to the Site will result in no direct impacts on the cultural heritage resource.

#### 14.4.2 Construction Phase – Indirect Impacts

There are two recorded archaeological sites within the Site, and these comprise a field boundary (CO057-006----), with visible remains located c.190 m to the west of T2, and an enclosure (CO057-007----) located c.150 m to the north of T2 (**Figure 14.2**). The wider settings of both of these archaeological sites will be subject to short term, slight, negative, indirect impacts during the construction phase. There are 15 other archaeological sites located within private lands within 1 km of the Site and none are located within 480 m of

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<sup>23</sup> <https://consult.kerrycoco.ie/sites/default/files/4%20Archaeological%20Landscapes.pdf>

any proposed Development areas (**Table 14.6** and **Figure 14.1**). In addition, none of these sites are accessible to the public or have been designated as National Monuments in State Care. A review of the landscape extending for 10 km from the Site revealed that there are also no National Monuments in State Care or World Heritage sites (including tentative list) located within this area. The construction phase is, therefore, predicted to result in no predicted indirect impacts on the recorded archaeological monuments located within the lands within 1 km the Site.

There are no designated architectural heritage structures within 1 km of the Site and no indirect negative impacts on this element of the cultural heritage resource are predicted during the construction phase. There is one extant undesignated derelict farm building of low cultural heritage value located within the east end of the Site. No construction phase works are proposed within 110 m of its location and no indirect impacts on this structure are predicted during the construction phase (**Figure 14.3**).

The proposed Project is located within the Múscraí Gaeltacht area. While the construction phase will see the arrival of construction workers to the area, this will be a short term occurrence and will not result in permanent settlement of the area by non-Irish speakers. The Project is, therefore, predicted to result in a negligible, indirect, not significant impact on the Irish language or cultural heritage of the Gaeltacht area during the construction phase.

The Sites and Monuments Record lists a redundant record (KE076-071----) within the environs of the section of the Grid Connection Route and Turbine Delivery Route extending from the N22 road to the Site. As previously noted, the Archaeological Survey of Ireland have concluded that the redundant record does not warrant acceptance as an archaeological monument (see **Section 14.3.12**). The use of horizontal directional drilling to install the Grid Connection Route in this area and the use of the existing forestry road to the east of the site listed as a redundant record (KE076-071----) to facilitate the delivery of turbines will result in no predicted indirect impacts on this redundant record site. The location of the Grid Connection Route that extends along the southern side of The Paps Archaeological Landscape is occupied by an existing forestry road and is screened by forestry on both sides. There are no other recorded archaeological sites or any architectural heritage structures located within 100 m of the Grid Connection Route. The Grid Connection Route will not result in any predicted indirect impacts on the cultural heritage resource during the construction phase.

While there are various cultural heritage assets located within the 100 m study area corridor centred on the Turbine Delivery Route (**Tables 14.9** and **14.10** and **Figures 14.9** and **14.10**), none contain elements that extend into the road carriageways and the transport of turbines from Ringaskiddy to the Site will not result in any predicted indirect impacts on the cultural heritage resource during the construction phase.

**Table 14.15: Summary of construction phase impacts on cultural heritage assets in study area**

Monument No.	Classification (Condition)	Indicative Value range	Impact Type	Impact Quality	Impact Magnitude	Impact Duration	Impact Significance
CO057-006----	Field boundary (partially extant)	Medium-High	Indirect	Negative	Slight	Short term	Slight
CO057-007----	Enclosure (Extant)	High	Indirect	Negative	Slight	Short term	Slight
KE086-007----	Megalithic structure (Collapsed and in forestry)	Medium-High	No predicted impact	Neutral	n/a	n/a	None
KE086-002----	Road (no surface trace)	Medium	No predicted impact	Neutral	n/a	n/a	None
CO057-008001-	Field boundary (part of group)	High	No predicted impact	Neutral	n/a	n/a	None
CO057-008002-	Hut site (part of group)	High	No predicted impact	Neutral	n/a	n/a	None
CO057-008003-	Hut site (part of group)	High	No predicted impact	Neutral	n/a	n/a	None
CO057-008004-	Enclosure (part of group)	High	Indirect	Neutral	n/a	n/a	None
CO057-008005-	Enclosure (part of group)	High	No predicted impact	Neutral	n/a	n/a	None
CO057-008006-	Hut site (part of group)	High	No predicted impact	Neutral	n/a	n/a	None
CO057-008007-	Fulacht fia (part of group)	High	No predicted impact	Neutral	n/a	n/a	None
CO057-008008-	Hut site (part of group)	High	No predicted impact	Neutral	n/a	n/a	None

Monument No.	Classification (Condition)	Indicative Value range	Impact Type	Impact Quality	Impact Magnitude	Impact Duration	Impact Significance
CO057-001----	Lime kiln (partially collapsed)	Medium	No predicted impact	Neutral	n/a	n/a	None
KE076-071----	Redundant Record	Negligible	No predicted impact	Neutral	n/a	n/a	None
CO057-005----	Lime kiln (no inventory description)	Medium	No predicted impact	Neutral	n/a	n/a	None
CO057-009----	Holy well (overgrown spring)	Medium-High	No predicted impact	Neutral	n/a	n/a	None
CO057-010----	Lime kiln (no inventory description)	Medium	Indirect	Neutral	n/a	n/a	Slight
CO057-012----	Structure (no inventory description)	Medium	No predicted impact	Neutral	n/a	n/a	None
CO058-001----	Lime kiln (partially collapsed)	Medium	No predicted impact	Neutral	n/a	n/a	None
None	Upright stone and potential hut	Low-Medium	No predicted impact	Neutral	n/a	n/a	None
None	Farm building (derelict)	Low	No predicted impact	Neutral	n/a	n/a	None
None	Inchamore Milleeny townland boundary (stream)	Low	Direct	Negative	Negligible	Short term	Not significant
Kerry County Council Archaeological Landscape No.13	The Paps Archaeological Landscape	High	No predicted impact	Neutral	n/a	n/a	None

### 14.4.3 Operational Phase – Direct Impacts

The operational phase of the Project will result in no predicted direct physical impacts on the known archaeological, architectural and cultural heritage resources. In addition, the successful implementation of the mitigation measures presented in **Section 14.6** will result in the preservation *in situ* (by avoidance) or the preservation in record (by archaeological excavation) of any unrecorded, sub-surface archaeological sites or features that may exist within proposed Development areas. There will, therefore, be no predicted direct impacts on any such potential unrecorded archaeological sites during the operational phase.

### 14.4.4 Operational Phase – Indirect Impacts

#### *The Site*

As detailed in **Table 14.16**, the operational phase will result in a range of indirect negative impacts of a visual nature on the wider setting of a number of recorded archaeological sites within the study area and the surrounding landscape which will range from not significant to moderate in significance. The one predicted indirect negative impact of moderate significance will arise from the presence of three turbines (T1, T2 and T3) and associated access routes within a 500 m area extending to the south, northwest and northeast of an extant archaeological site (Enclosure CO057-007----) (**Figure 14.1**). This is predicted to result in a medium magnitude of impact on the historic landscape setting of this recorded archaeological monument, which is of potential medium-high value and, based on the EPA impact assessment criteria presented in **Table 14.4 (Section 14.2.8)**, this will result in a predicted reversible, negative, indirect, moderate significance of impact.

The recorded archaeological resource within an area extending for 10 km from the Site was assessed to determine the presence of other monuments within the wider landscape that may have potential visual sensitivities, i.e. ritual alignments. This revealed that only one example has a potential direct alignment towards the Site, and this comprises a wedge tomb (CO058-060----) located within a disturbed area of cut-away bog 2.25 km to the northeast (**Figure 14.7**) While this monument has legal protection by its inclusion on the Recorded of Monuments and Places, it is not designated as a National Monument in State Care considered to be of national significance. The monument is located within private lands not accessible to the public and is recorded as being in ruinous condition by the Archaeological Survey of Ireland. Given its distance from the Site in combination with its recorded designation, inaccessibility and partial surviving extent, the potential indirect, negative impact on its wider setting is appraised as being low in magnitude and slight in significance. Given the distances of the other monuments with visual alignment attributes from the Site

in combination with the absence of recorded direct visual alignments towards its location, no predicted moderate or significant indirect negative impacts on their settings are predicted and likely slight indirect impacts on their wider settings will be reversed following decommissioning.

A review of the landscape extending for 10 km from the Site revealed that there are no National Monuments in State Care or World Heritage sites (including tentative list) located within this area. The operational phase will therefore not result in any predicted indirect impacts on archaeological sites assigned these designations.

The Landscape and Amenity impact assessment (**Chapter 12**) provides an assessment of potential cumulative visual impacts on the Western Summit of 'the Paps of Anu', which forms a prominent location within The Paps Archaeological Landscape as designated in the County Kerry Development Plan 2022-2028. This assessment concludes that the visual impact, including cumulative, from this location will be low in magnitude and moderate in significance (see **Chapter 12; Section 12.4.3.5** and **Table 12.7**). The Landscape and Amenity assessment also concludes that the heritage area within the Gougane Barra valley, including Saint Finbarr's Oratory which is c.12 km to the southwest, is not contained within the Zone of Theoretical Visibility pattern and the Development has no potential for visibility from within this valley (see **Chapter 12; Section 12.3.3.1**).

In conclusion, while the turbines within the Site will be visible from various cultural heritage assets within the surrounding landscape, no likely significant, indirect impacts on examples with notable visual or amenity sensitivities are predicted during the operational phase.

- a. The Project is located within the Múscraí Gaeltacht area. The requirement for low numbers of onsite staff during the operation phase will be intermittent and this will not result in any predicted impacts on the Irish language or cultural heritage of this Gaeltacht area.

#### *Grid Connection Route*

As the Grid Connection Route will comprise a buried cable it will, therefore, result in no predicted direct impacts on the cultural heritage resource during the operational phase.

#### *Turbine Delivery Route*

In the event that any turbines are required to be replaced using the same delivery route from Ringaskiddy during the operational phase, no likely impacts on the cultural resource are predicted.

**Table 14.16: Summary of operational phase impacts on cultural heritage assets in 1 km study area**

Monument No.	Classification (Condition)	Indicative Value range	Impact Type	Impact Quality	Impact Magnitude	Impact Duration	Impact Significance
CO057-006----	Field boundary (partially extant)	Medium-High	Indirect	Negative	Low	Long term	Slight
CO057-007----	Enclosure (Extant)	Medium-High	Indirect	Negative	Medium	Long term	Moderate
KE086-007----	Megalithic structure (Collapsed and in forestry)	Medium-High	No predicted impact	Neutral	n/a	n/a	None
KE086-002----	Road (no surface trace in forestry)	Medium	No predicted impact	Neutral	n/a	n/a	None
CO057-008001-	Field boundary (part of group)	High	Indirect	Negative	Low	Long term	Slight
CO057-008002-	Hut site (part of group)	High	Indirect	Negative	Low	Long term	Slight
CO057-008003-	Hut site (part of group)	High	Indirect	Negative	Low	Long term	Slight
CO057-008004-	Enclosure (part of group)	High	Indirect	Negative	Low	Long term	Slight
CO057-008005-	Enclosure (part of group)	High	Indirect	Negative	Low	Long term	Slight
CO057-008006-	Hut site (part of group)	High	Indirect	Negative	Low	Long term	Slight
CO057-008007-	Fulacht fia (part of group)	High	Indirect	Negative	Low	Long term	Slight
CO057-008008-	Hut site (part of group)	High	Indirect	Negative	Low	Long term	Slight

Monument No.	Classification (Condition)	Indicative Value range	Impact Type	Impact Quality	Impact Magnitude	Impact Duration	Impact Significance
KE076-071----	Redundant Record	Negligible	No predicted impact	Neutral	n/a	n/a	None
CO057-005----	Lime kiln (no inventory description)	Medium	Indirect	Negative	Negligible	Long term	Not significant
CO057-009----	Holy well (overgrown spring)	Medium-High	Indirect	Negative	Low	Long term	Slight
CO057-010----	Lime kiln (no inventory description)	Medium	Indirect	Negative	Negligible	Long term	Not significant
CO057-012----	Structure (no inventory description)	Medium	Indirect	Negative	Negligible	Long term	Not significant
CO058-001----	Lime kiln (partially collapsed)	Medium	Indirect	Negative	Negligible	Long term	Not significant
None	Upright stone and potential hut	Low-Medium	Indirect	Negative	Low	Long term	Slight
None	Farm building (derelict)	Low	Indirect	Negative	Negligible	Long term	Not significant
None	Inchamore Milleeny townland boundary (stream)	Low	Direct	Negative	Negligible	Long term	Not significant
Kerry County Council Archaeological Landscape No.13	The Paps Archaeological Landscape	High	Indirect	Negative	Low	Long term	Moderate

## 14.5 MITIGATION MEASURES AND RESIDUAL EFFECTS

### 14.5.1 Construction Phase

The wind farm layout was informed by the archaeological desktop studies and fieldwork undertaken during the design and assessment phases and was designed to avoid the known locations of known and potential archaeological monuments as well as an undesignated late 19<sup>th</sup> century farm building within the east end of the Site.

The mitigation measures presented in this section comprise construction phase archaeological monitoring of ground works as well as protection measures for known and potential cultural heritage assets within the Site. These mitigation measures are in accordance with guidelines for planning conditions for wind energy developments within close proximity to recorded archaeological monuments as published in Section 7.4 of the *2006 Wind Energy Development Guidelines*<sup>24</sup> and Section 7.6 of the *2019 Draft Revised Wind Energy Development Guidelines*<sup>25</sup>.

Ground works during the construction phase will be subject to archaeological monitoring by a suitably qualified archaeologist under licence by the National Monuments Service. A systematic advance programme of archaeological field-walking surveys will also be carried out within Development areas in forestry plantations following tree felling to confirm the conditions predicted in this assessment, i.e., that they contain no visible surface traces of potential unrecorded archaeological or architectural heritage sites.

In the event that any sub-surface archaeological features are identified during archaeological monitoring they will be securely cordoned off, cleaned and recorded *in situ*. The National Monuments Service will then be notified and consulted to determine further appropriate mitigation measures, which may include preservation *in situ* (by avoidance) or preservation by record (archaeological excavation).

The archaeologist appointed to monitor the construction phase will also supervise the establishment of minimum 30 m radius concentric buffer zones around the external-most elements of Field Boundary (CO057-006----) and Enclosure (CO057-007----). These buffer zones will be securely fenced off and their locations will be clearly signed as 'No Entry' for the duration of the construction phase. No ground works of any kind (including but not limited to advance geotechnical site investigation) and no machinery, storage of materials

<sup>24</sup> <https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/>

<sup>25</sup> <https://www.gov.ie/en/publication/9d0f66-draft-revised-wind-energy-development-guidelines-december-2019/>

or any other activity related to construction will occur within these buffer zones. The location of a derelict farm building, which shown on the second edition 6-inch OS map (published 1900), is c.110 m outside the nearest construction area within the Site. This will be clearly signed as “No Entry” during the construction phase. The locations of these onsite archaeological monuments and farm building will also be identified as ‘no-entry’ areas during the construction phase site inductions. The location of two features located c.40 m to the north of T2, which are tentatively identified as being of archaeological potential (hut site and upright stone), are located in private lands outside the Redline Boundary. The erection of fencing around their locations will therefore not be feasible but, “No Entry” signs will be erected at the north, south and east edges of the Redline Boundary within their environs.

The Project is located within the Múscraí Gaeltacht area and any signage erected within the public realm during the construction phase will include Irish and English text.

#### **14.5.2 Construction Phase Residual Impacts – Direct**

The mitigation measures presented in **Section 14.5.1** will provide for either the avoidance of the potential unrecorded, sub-surface archaeological resource within the footprint of proposed construction locations or the proper and adequate recording of this resource by full archaeological excavation. Preservation *in situ* shall allow for a negligible magnitude of impact resulting in a potential not significant/imperceptible significance of effect in the context of residual impact on the unrecorded archaeological resource. Preservation by record shall allow for a high magnitude of impact, albeit ameliorated by the creation of a full and detailed archaeological record, the results of which shall be publicly disseminated. This shall result in a potential slight/moderate range of significance of effect in the context of residual impacts on the unrecorded archaeological resource.

#### **14.5.3 Construction Phase Residual Impacts – Indirect**

The buffer zone mitigation measures presented in **Section 14.5.1** will provide for the protection of known archaeological monuments and undesignated historical buildings within the Site. No residual construction phase indirect impacts are predicted following the implementation of these mitigation measures.

#### **14.5.4 Operational Phase**

Following the successful implementation of the mitigation measures presented in **Section 14.5.1**, the operational phase of the Project will result in no predicted direct impacts on the

known archaeological, architectural and cultural heritage resources and, therefore, no mitigation measures for direct operational phase impacts will be required.

As detailed in **Section 14.4.4**, the wind farm turbines will result in a range of long term, indirect, negative impacts of a visual nature on the wider setting of archaeological sites within the environs of the Site during the operational phase which will range from not significant to moderate in significance (**Table 14.16**). Given the nature of the wind farm turbines there are no mitigation measures that can address these visual impacts, but it is noted that they will be reversed following the decommissioning phase. The Grid Connection Route and Turbine Delivery Route will result in no predicted residual impacts.

#### 14.5.5 Operation Phase Residual Impacts - Direct

No operation phase direct residual impacts on the cultural heritage resource are predicted following the implementation of mitigation measures presented in **Section 14.5.1**.

#### 14.5.6 Operation Phase Residual Impacts - Indirect

The operation phase will result in a range of not significant to moderate, long term, negative residual indirect impacts on archaeological sites within the environs of the Project (**Table 14.16**). It is noted that these will all be reversed following decommissioning of the Project.

### 14.6 CUMULATIVE IMPACTS

A review of wind farm developments within 10 km of the Project was carried out in order to assess potential cumulative impacts on the cultural heritage resource (**Table 14.17**). This included a review of available archaeological and cultural heritage impact assessments of these developments included in the online planning files published on the Cork County Council (CCC) and Kerry County Council (KCC) planning enquiry systems as well as the Database of Irish Excavation Reports. A review of other developments within 3 km of the Project was also carried out and the results are presented below (**Table 14.18**).

**Table 14.17: Review of wind farm developments within 10 km of the Project**

Wind Farm	Status	No. of Turbines	Approximate Distance to the Site Boundary	Direction from the Development	Cultural Heritage Review
Cleanrath	Operational	9	9.93 km	South East	Archaeological testing and monitoring carried out as part of this development revealed nothing of archaeological significance <sup>26</sup>
Clydaghroe, Clonkeen	Operational	4	6.05 km	North East	The Excavations Database does not contain any entries for this development. A review of its location revealed that the site does

<sup>26</sup> <https://excavations.ie/report/2019/Cork/0029095/>

Wind Farm	Status	No. of Turbines	Approximate Distance to the Site Boundary	Direction from the Development	Cultural Heritage Review
					not contain any designated cultural heritage sites
Coumaclovane, Coolea	Permitted	1	3.17 km	South-West	The Excavations Database does not contain any entries for this development. A review of its location revealed that the site does not contain any designated cultural heritage sites
Coolknoohil, Inchee	Operational	2	3.94 km	South-West	Archaeological monitoring of this development revealed nothing of archaeological significance <sup>27</sup>
Coolknoohil, Kilgarvan	Operational	11	4.40 km	South-West	Archaeological monitoring of this development revealed nothing of archaeological significance <sup>28</sup>
Coomagearlahy Kilgarvan	Operational	15	2.70 km	South-West	Archaeological monitoring of this development revealed nothing of archaeological significance <sup>29</sup>
Cummeennabuddoge, Clydaghroe, Cloonkeen	Operational	2	7.23 km	North-East	The Excavations Database does not contain any entries for this development. A review of the EIS for the development revealed that its location does not contain any designated cultural heritage sites <sup>30</sup>
Coomacheo	Operational	15	9.02 km	North-East	Advance archaeological site investigations of the development location revealed nothing of archaeological significance <sup>31</sup>
Derragh	Operational	6	7.52 km	South	A review of the Cultural Heritage Chapter in the EIS prepared for the for this development was carried out and revealed that it was assessed to have no predicted direct or significant impacts on the cultural heritage resource <sup>32</sup> . The assessment also concluded that the visual impacts on archaeological sites within the surrounding landscape would be slight in significance.
Gortnakilla, Clonkeen Killarney	Permitted	4	1.87 km	West	A review of the cultural heritage assessment prepared for this location was carried out and revealed that it contained no known cultural heritage assets <sup>33</sup>
Grousemount, Barnastooka	Operational	24	7.38 km	South-West	Archaeological investigations at this development revealed various features including the remains of upland hut sites (Licence 16E0127 <sup>34</sup> ). All of these were preserved <i>in situ</i> by avoidance apart from one example which was preserved by record by an

<sup>27</sup> <https://excavations.ie/report/2013/Kerry/0024269/>

<sup>28</sup> <https://excavations.ie/report/2004/Kerry/0011861/>

<sup>29</sup> <https://excavations.ie/report/2005/Kerry/0013693/>

<sup>30</sup> <http://docstore.kerrycoco.ie/planningfiles/061680.pdf>

<sup>31</sup> <https://excavations.ie/report/2006/Cork/0015047/>

<sup>32</sup> <http://planning.corkcoco.ie/ePlan/AppFileRefDetails/156966/0>

<sup>33</sup> <http://docstore.kerrycoco.ie/planningfiles/061396.pdf>

<sup>34</sup> <https://excavations.ie/report/2016/Kerry/0025172/>

Wind Farm	Status	No. of Turbines	Approximate Distance to the Site Boundary	Direction from the Development	Cultural Heritage Review
					archaeological excavation which revealed it to be a cairn containing a Bronze Age 'short cist' (Licence 18E0324 <sup>35</sup> ).
Gortyrähilly	Proposed	14	4.7 km	South	The cultural heritage assessment of this proposed development concluded that it would result in no predicted direct or significant impacts on the resource <sup>36</sup>
Inchee, Poulbatha & Foilgreana	Operational	6	3.30 km	South-West	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance <sup>37</sup>
Inchincoosh Kilgarvan	Operational	6	4.51 km	West	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance <sup>38</sup>
Rosseightragh, Lettercannon, Kilgarvan	Operational	7	5.23 km	South West	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance <sup>39</sup>
Knocknamork	Permitted	7	4.42 km	North East	The cultural heritage assessment of this proposed development concluded that it would result in no predicted direct or significant impacts on the resource <sup>40</sup>
Sillahertane Kilgarvan	Operational	10	7.03 km	South-West	Archaeological monitoring of the construction of this development revealed nothing of archaeological significance <sup>41</sup>
Cummeennabuddoge	Pre-planning	17	4.72 km	North East	A review of the location of this proposed development revealed that there are no recorded archaeological sites or designated architectural heritage structures within its boundary

<sup>35</sup> <https://excavations.ie/report/2018/Kerry/0027273/>

<sup>36</sup> <https://gortyrähillyplanning.ie/environmental/>

<sup>37</sup> <http://docstore.kerrycoco.ie/planningfiles/031188.pdf>

<sup>38</sup> <https://excavations.ie/report/2008/Kerry/0019629/>

<sup>39</sup> <https://excavations.ie/report/2008/Kerry/0019629/>

<sup>40</sup> <http://planningdocs.corkcoco.ie/PlanningDocumentDisplay/documents/18a-194972>

<sup>41</sup> <https://excavations.ie/report/2008/Kerry/0019648/>

**Table 14.18: Review of other developments within 3 km of the Project**

Planning ref.	Development type	Status	Approx. Distance from Project	Cultural Heritage Review
CCC ref. 174167	Solar Farm	Granted	3 km to southwest	A pre-development archaeological assessment concluded there were no recorded archaeological sites located within or in close proximity to the subject site. No likely significant impacts were predicted, and archaeological monitoring of construction phase was recommended <sup>42</sup> . This recommendation was included as a condition in the grant of planning.
CCC. ref. 215127	Temporary meteorological mast	Granted	Adjacent	A pre-development archaeological assessment noted the presence of two archaeological sites (enclosure CO057-007---- and field boundary CO057-006----) within the environs of the subject site. The proposed development was designed to avoid their locations and no likely direct or significant impacts were predicted <sup>43</sup> . Archaeological monitoring of construction phase was recommended and this was included as a condition in the grant of planning.
CCC. ref. 217318	Telecommunications structure	Granted	0.6 km to east	The online planning file for this development does not contain an archaeological assessment. A review of its location revealed that it does not contain any recorded archaeological sites
CCC. ref. 224455	House	Granted	2.1 km to south	The online planning file for this development does not contain an archaeological assessment. A review of its location revealed that it does not contain any recorded archaeological sites
CCC. ref. 196555	Land reclamation	Granted	2.8 km to south	The online planning file for this development does not contain an archaeological assessment. A review of its location revealed that it does not contain any recorded archaeological sites
CCC. ref. 204959	Farm buildings	Granted	1.8 km to south	The online planning file for this development does not contain an archaeological assessment. A review of its location revealed that it does not contain any recorded archaeological sites
CCC. ref. 214587	House	Granted	1.8 km to south	The online planning file for this development does not contain an archaeological assessment. A review of its location revealed that it does not contain any recorded archaeological sites
CCC. ref. 186505	House	Granted	1.8 km to southeast	The online planning file for this development does not contain an archaeological assessment. A review of its location revealed that it does not contain any recorded archaeological sites
CCC. ref. 184273	House	Granted	1.8 km to southeast	The online planning file for this development does not contain an archaeological assessment. A review of its location revealed that it does not contain any recorded archaeological sites
CCC ref. 196056	House	Granted	2.8 km to southeast	The online planning file for this development does not contain an archaeological

<sup>42</sup> <http://planningdocs.corkcoco.ie/PlanningDocumentDisplay/documents/18a-174167>

<sup>43</sup> <http://planningdocs.corkcoco.ie/PlanningDocumentDisplay/documents/18a-215127>

Planning ref.	Development type	Status	Approx. Distance from Project	Cultural Heritage Review
				assessment. A review of its location revealed that it does not contain any recorded archaeological sites

Given the absence of any direct or significant impacts on the recorded cultural heritage resource arising from the Project, in combination with the results of the above review of wind farms, it is concluded that the proposed Project is not predicted to contribute to any significant direct cumulative impacts on the cultural heritage resource of the wider area.

The Development will result in a range of not significant to moderate, negative, indirect impacts on the settings of archaeological monuments within surrounding lands (**Table 14.16**). Given the distances and locations of the other reviewed wind farm developments from the Development, it is concluded that they will not act in combination to result in any likely significant, negative, indirect cumulative impacts on the settings of these monuments. In addition, as described in **Section 14.3.2**, a review of archaeological monument types with visual alignment attributes within the 10 km of the Site revealed that the Development will not result in any predicted likely moderate or significant indirect negative impacts on any of their settings or alignments. The review of available cultural heritage impact assessments of the wind farm developments listed in **Table 14.17** revealed that none of these assessments predicted any likely significant, indirect impacts on any monuments within the wider environs of the assessed wind farm locations.

The Landscape and Amenity impact assessment (**Chapter 12**) provides an assessment of potential cumulative visual impacts on the Western Summit of 'the Paps of Anu', which forms a prominent location within The Paps Archaeological Landscape. This assessment concludes that the cumulative visual impact from this location is Moderate in significance (see **Chapter 12; Section 12.4.3.5**). The Landscape and Amenity assessment also concludes that the heritage site of Gougane Barra, including Saint Finbarr's Oratory which is c.12 km to the southwest, is not contained within the Zone of Theoretical Visibility pattern and indicated no potential for visibility from within this valley location (see **Chapter 12; Section 12.3.3.1**).

It is, therefore, concluded that the Development will not act in combination with the reviewed wind farm developments to result in likely significant indirect negative cumulative impacts on the settings or alignments of such ritual archaeological monuments within the wider

landscape. There are no National Monuments in State Care or World Heritage sites (including tentative list) located within 10 km of the Site and the Development is not predicted to contribute to any cumulative impacts on such monuments.

The locations of other developments, including residential and agricultural developments, within 3 km of the Development were also reviewed on the County Cork and Kerry planning enquiry systems. The majority of these reviewed developments are small-scale in extent, including dwelling houses and farm buildings, and no examples that will result in direct or indirect significant cumulative impacts, on any recorded archaeological sites or designated architectural heritage structures were noted. Two of the reviewed developments are located within 1 km of the Site and these comprise a temporary meteorological mast and a telecommunication structure (**Table 14.18**; CCC refs 215127 and 217318). These two permitted developments are not predicted to result in any likely significant indirect impacts on the known cultural heritage resource and are not considered likely to contribute to any significant indirect impacts in combination with the Development. This is due to their distance from the Development in combination with the absence of cultural heritage constraints with notable visual sensitivities, such as megalithic tombs, stone rows/circles, within their environs. The review did not identify any other examples that will combine with the Development to result in any likely significant cumulative impacts on the cultural heritage resource.

#### 14.7 DECOMMISSIONING IMPACTS

No direct impacts on known elements of the cultural heritage resource are predicted during the decommissioning phase as there are no recorded cultural heritage assets located within or adjacent to the footprint of the various elements of the wind farm that will be subject to decommissioning. Any unrecorded, sub-surface archaeological remains identified during archaeological monitoring of the construction phase will either be preserved *in situ* by avoidance within the Site or preserved by record (excavation) and no decommissioning impacts on such potential features are predicted. The decommissioning of the Development will result in the reversal of the long term, indirect, negative visual impacts on the archaeological monuments located within the environs of the Site and the wider landscape (**Table 14.16**).

#### 14.8 CONCLUSIONS

The Project will not result in any predicted direct negative impacts on any known archaeological monuments or architectural heritage structures. The locations of two recorded archaeological sites within the Site will be cordoned off within fenced buffer zones

for the duration of the construction phase. No in-channel works within any watercourses will be carried out and no impacts on any potential underwater archaeological remains are predicted. The potential exists for the presence of unrecorded, sub-surface archaeological features within the Site and archaeological monitoring of the construction phase will be carried out under licence from the National Monuments Service by a suitably qualified archaeologist. In the event that any sub-surface archaeological remains are identified during monitoring, they will be cleaned, recorded and left to remain *in situ* within cordoned off areas while the National Monuments Service are notified and as described above in respect of measures which may entail preservation *in situ* by avoidance or preservation by record by archaeological excavation.

The Project will result in a range of not significant to moderate, indirect negative visual impacts on the settings of archaeological monuments located within surrounding lands during the operational phase (**Table 14.16**). These indirect impacts will be long term in duration and will be reversed following the decommissioning phase.

#### **14.9 SUMMARY OF SIGNIFICANT EFFECTS**

No predicted significant direct, indirect or cumulative effects on the Cultural Heritage resource arising from the proposed Project have been identified.

#### **14.10 STATEMENT OF SIGNIFICANCE**

An assessment has been made of the potential for significant effects of the Project on the cultural heritage resource. Following the application of effective mitigation measures based on best practice guidelines, including archaeological inputs during the Project design process combined with onsite archaeological monitoring of the construction phase, the Project is not predicted to result in likely significant effects on the cultural heritage resource.