

## 14. ARCHAEOLOGY AND CULTURAL HERITAGE

### 14.1 Introduction

This archaeological, architectural, and cultural heritage chapter was prepared by Tobar Archaeological Services. It presents the results of an archaeological, architectural and cultural heritage impact assessment of the Proposed Development. The purpose of this chapter is to assess the potential direct and indirect effects of the Proposed Development on the surrounding archaeological, architectural and cultural heritage landscape. The assessment is based on both a desktop review of the available cultural heritage and archaeological data and a field inspection of the Proposed Development area. An assessment of potential effects, including cumulative effects, is presented.

#### 14.1.1 The Proposed Development

The Existing Kilgarvan Wind Farm consists of 28 turbines. The Proposed Development will comprise the removal of 28 no. existing wind turbines, the construction of 11 No. wind turbines with a blade tip height of between 119.5m and 200 metres and all associated works. The Proposed Development will utilise the Existing Kilgarvan Wind Farm onsite 110kV Coomagearlachy electrical substation, along with the existing 110kV overhead line to Clonkeen 110kV Substation.

A full description of the Proposed Development is described in Chapter 4 of the EIAR.

#### 14.1.2 Location and Topography

The Proposed Development is located approximately 5.5km northeast of the village of Kilgarvan Co. Kerry and approximately 6km west of Coolea, Co. Cork. The approximate location for the centre of the site are ITM 508585, 577040. The proposed site covers an area of approximately 775 hectares (ha) in total.

#### 14.1.3 Statement of Authority

This chapter of the EIAR has been prepared by Miriam Carroll and Annette Quinn of Tobar Archaeological Services Ltd. Miriam and Annette both graduated from University College Cork in 1998 with a Masters degree in Methods and Techniques in Irish Archaeology. Both are licensed by the Department of Housing, Local Government and Heritage to carry out excavations and are members of the Institute of Archaeologists of Ireland. Annette Quinn and Miriam Carroll have been working in the field of archaeology since 1994 and have undertaken numerous projects for both the private and public sectors including excavations, site assessments (EIAR) and surveys. Both authors also have experience in carrying out Built Heritage assessment reports and building surveys as well as Local heritage plans and Conservation and Management Plans for Heritage towns / groups. Miriam Carroll and Annette Quinn are directors of Tobar Archaeological Services Ltd which has been in operation for 20 years.

#### 14.1.4 Relevant Legislation

Archaeological monuments are safeguarded through national and international policy, which is designed to secure the protection of the cultural heritage resource. This is undertaken in accordance with the provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention). This was ratified by Ireland in 1997.

Both the National Monuments Acts 1930 to 2004 and relevant provisions of the Cultural Institutions Act 1997 are the primary means of ensuring protection of archaeological monuments, the latter of which includes all man-made structures of whatever form or date. There are a number of provisions under the National Monuments Acts which ensure protection of the archaeological resource. These include the Register of Historic Monuments (1997 Act) which means that any interference to a monument is illegal under that Act. All registered monuments are included on the Record of Monuments and Places (RMP).

The Record of Monuments and Places (RMP) was established under Section 12 (1) of the National Monuments (Amendment) Act 1994 and consists of a list of known archaeological monuments and accompanying maps. The Record of Monuments and Places affords some protection to the monuments entered therein. Section 12 (3) of the 1994 Amendment Act states that any person proposing to carry out work at or in relation to a recorded monument must give notice in writing to the Minister (Environment, Heritage and Local Government) and shall not commence the work for a period of two months after having given the notice. All proposed works, therefore, within or around any archaeological monument are subject to statutory protection and legislation (National Monuments Acts 1930-2004).

The term ‘national monument’ as defined in Section 2 of the National Monuments Act 1930 means 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’*. National monuments in State care include those which are in the ownership or guardianship of the Minister for Arts, Heritage and the Gaeltacht. Section 5 of the National Monuments Act (1930) allows owners of other national monuments to appoint the Minister for the Arts, Heritage and the Gaeltacht or the relevant local authority as guardian of such monuments, subject to their consent. This means in effect that while the property of such a monument remains vested in the owner, its maintenance and upkeep are the responsibility of the State. Some monuments are also protected by Preservation Orders and are also regarded as National Monuments. National Monuments also includes (but not so as to limit, extend or otherwise influence the construction of the foregoing general definition) every monument in Saorstát Éireann to which the Ancient Monuments Protection Act, 1882, applied immediately before the passing of this Act, and the said expression shall be construed as including, in addition to the monument itself, the site of the monument and the means of access thereto and also such portion of land adjoining such site as may be required to fence, cover in, or otherwise preserve from injury the monument or to preserve the amenities thereof.

Under the Heritage Act (1995) architectural heritage is defined to include *‘all structures, buildings, traditional and designed, and groups of buildings including street-scapes 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...’*. A heritage building is also defined to include *‘any building, or part thereof, which is of significance because of its intrinsic architectural or artistic quality or its setting or because of its association with the commercial, cultural, economic, industrial, military, political, social or religious history of the place where it is situated or of the country or generally’*.

#### 14.1.4.1 Granada Convention

The Council of Europe, in Article 2 of the 1985 Convention for the Protection of the Architectural Heritage of Europe (Granada Convention), states that *‘for the purpose of precise identification of the monuments, groups of structures and sites to be protected, each member State will undertake to maintain inventories of that architectural heritage’*. The Granada Convention emphasises the importance of inventories in underpinning conservation policies.

The NIAH was established in 1990 to fulfil Ireland's obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland. Article 1 of the Granada Convention establishes the parameters of this

work by defining 'architectural heritage' under three broad categories of Monument, Groups of Buildings, and Sites:

- Monument: all buildings and structures of conspicuous historical, archaeological, artistic, scientific, social or technical interest, including their fixtures and fittings;
- Group of buildings: homogeneous groups of urban or rural buildings conspicuous for their historical, archaeological, artistic, scientific, social or technical interest, which are sufficiently coherent to form topographically definable units;
- Sites: the combined works of man and nature, being areas which are partially built upon and sufficiently distinctive and homogenous to be topographically definable, and are of conspicuous historical, archaeological, artistic, scientific, social or technical interest.

The Council of Europe's definition of architectural heritage allows for the inclusion of structures, groups of structures and sites which are considered to be of significance in their own right, or which are of significance in their local context and environment. The NIAH believes it is important to consider the architectural heritage as encompassing a wide variety of structures and sites as diverse as post boxes, grand country houses, mill complexes and vernacular farmhouses.

#### 14.1.4.2 **Kerry County Development Plan 2022-2028**

The Kerry County Development Plan was adopted on 4<sup>th</sup> July 2022. It outlines a number of policies and objectives relating to archaeology, built heritage and cultural heritage as follows:

##### 14.1.4.2.1 **Archaeological Heritage including Archaeological Landscapes**

It is an objective of the Council to:

KCDP 8-24 (i) Secure the preservation in situ of all sites, features, protected wrecks and objects of archaeological interest within the county. In securing such preservation the Council will have regard to the advice and recommendations of the National Monuments Service, Department of Housing, Local Government and Heritage, the National Museum of Ireland, and the County Archaeologist.

(ii) Ensure that proposed development (due to location, size, or nature) which may have implications for the archaeological heritage of the county will be subject to an Archaeological Assessment (including Underwater Archaeological Impact Assessment) which may lead to further subsequent archaeological mitigation – buffer zones/exclusion zones, monitoring, pre-development archaeological testing, archaeological excavation and/or refusal of planning permission. This includes areas close to archaeological monuments, development sites which are extensive in area (half hectare or more) or length (1km or more) or include potential impacts on underwater cultural heritage and development that requires an Environmental Impact Assessment.

KCDP 8-25 Ensure the protection and preservation of archaeological monuments, wrecks and features, not yet listed in the Record of Monuments & Places (RMP), Sites & Monuments Record (SMR) or Wreck Inventory of Ireland Database and such unrecorded, through on-going review of the archaeological potential of the plan area. In securing such protection the council will have regard to the advice and recommendations of The National Monuments Service, Department of Housing, Local Government and Heritage, and the County Archaeologist.

KCDP 8-26 Protect and preserve and promote the underwater archaeological heritage of the county. In assessing proposals for development, the Council will take account of the Archaeological Potential of rivers, lakes, intertidal and sub-tidal environments. Where flood relief schemes are being undertaken the Council will have regard to the Archaeological Guidelines for Flood Relief Schemes (DHLGH and OPW 2021).

KCDP 8-27 Ensure that development (including forestry, renewable energy developments and extractive industries) within the vicinity of a recorded monument, zone of archaeological potential or archaeological landscape does not detract from the setting of the feature and is sited and designed appropriately and sympathetically with the character of the monument/feature/landscape and its setting.

KCDP 8-28 Ensure the active protection of the 19 identified, significant archaeological landscapes outlined in Volume 3 with particular emphasis on the landscape settings, views to and from the landscapes and monument/feature inter-visibility within these landscapes.

KCDP 8-29 Protect archaeological/historical graveyards within the county and to encourage and promote their maintenance in accordance with legislation, conservation principles and best practice.

KCDP 8-30 Protect and preserve the industrial, military, maritime, riverine, lacustrine and post-medieval archaeological heritage of the county as reflected in such sites as mills, lighthouses, harbours, Valentia cable station, gun batteries, towers, and demesnes. Proposals for refurbishment, works to or redevelopment of these sites should be subject to a full architectural and archaeological assessment including, where appropriate, Underwater Archaeological Impact Assessment.

KCDP 8-31 Promote public awareness and facilitate appropriate access to archaeological monuments through public engagement and appropriate advisory guidance.

KCDP 8-32 Promote awareness of the impact of climate change on the archaeology of the county, and promote appropriate identification, assessment, and adaption measures to reduce climate risk and develop resilience strategies for the archaeology of the county.

KCDP 8-33 Continue to research and record the archaeological heritage of the county and to promote the timely public access to the results of archaeological research and excavation.

Volume 3 of the CDP details the following regarding the identified Archaeological Landscapes within the County including that of The Paps which is situated just over 1km to the north and north-west of the Proposed Development boundary.

*‘The County has a richness of archaeological heritage with a number of very significant archaeological landscapes around the County. These landscapes are of Kerry, Regional, National and in some cases International significance (KS, RS, NS & IS) and every effort should be made to ensure their protection and preservation. The nineteen landscapes identified are described in detail in below. These important landscapes are listed for special protection with special emphasis on objectives that protect the monuments and their landscape settings but also their visual aspect and monument inter-visibility.’*

*‘13. The Paps – Annaghabeg, Annaghmore, Doocarrig More, Gortacoreen, Gortderrig, Shrone More, Shrone Beg, Gortnagane, Raheen, Awnaskirtaun, Knocknabro, Knockagowan, Derrynafinnia, Derrymaclavode, Killeen, Carrigaveema & Coolcurtoga. (IS) 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 hutsites, 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.’*



#### 14.1.4.2.2

### Built heritage including Record of Protected Structures

It is an objective of the Council to:

- **KCDP 8-34** Prepare an Architectural Heritage Plan for the County including marine, industrial, and agricultural heritage.
- **KCDP 8-35** Support and facilitate the rejuvenation of Kerry's historic built environment through the Kerry Building Conservation project.
- **KCDP 8-36** Address the impact of climate change in accordance with the Built and Archaeological Heritage Climate Change Sectoral Adaptation Plan and Kerry County Council's Climate Change Adaptation Strategy 2019-2024.
- **KCDP 8-37** Facilitate and support the growth and development of Architecture Kerry (Creative Ireland Kerry Programme).
- **KCDP 8-38** Seek the retention and appropriate repair and upgrading of historic, buildings, structures, road bridges, railway bridges and tunnels throughout the county, subject to environmental assessment.
- **KCDP 8-39** Ensure that rejuvenation and placemaking projects in the county enhance the physical, social, architectural, and historic settlement pattern of the locality.
- **KCDP 8-40** Ensure that any development, modification, alteration, or extension affecting a protected structure and/or its setting including designed landscape features and views, is compatible with the special character of that structure.
- **KCDP 8-41** Support owners of protected structures to carry out conservation-led repair and rejuvenation of their protected structures.
- **KCDP 8-42** Prohibit demolition or inappropriate alterations and replacement of elements of protected structures where they would adversely affect the essential character of a protected structure.
- **KCDP 8-43** Review the Record of Protected Structures as needed during the lifetime of the Plan.
- **KCDP 8-44** Ensure developments in an ACA have a positive impact on the intrinsic character of the area, respect the existing streetscape and layout, and are compatible in terms of design, materials, traffic, views, and intensity of site use.
- **KCDP 8-45** Resist demolition in an ACA and avoid the removal of structures and distinctive elements including boundary detailing, historic street furniture, cobblestones, flagstones, post boxes, water pumps and ensure new elements are respectful of the character of the historic ACA environment.
- **KCDP 8-46** Encourage the retention, appreciation and appropriate revitalisation of the vernacular-built heritage of Kerry by deterring the replacement of good quality older buildings with modern structures and by protecting these buildings where they contribute to the character of an area and/or where they are rare examples of a structure type.
- **KCDP 8-47** Promote the sympathetic maintenance, adaptation, and re-use of the county's vernacular built heritage, including thatched structures, in recognition of their role in tourism, economic revitalisation, climate change, placemaking and quality of life.
- **KCDP 8-48** Complete the vernacular survey of the Dingle Peninsula and carry out a vernacular survey of the Iveragh Peninsula during the lifetime of the Plan.
- **KCDP 8-49** Carry out further research and analysis to identify, survey and promote the conservation of historic landscapes in Kerry.
- **KCDP 8-50** Require that proposals for development within historic designed landscapes be sensitive to and respect the built heritage elements and green space values of the site.
- **KCDP 8-51** Facilitate and support measures to secure the designation of Valentia Trans-Atlantic Cable Station, Cable Terrace, "First Message" Building, Structure in the Telegraph Field, and ensemble of associated sites as a trans-national serial UNESCO World Heritage Site with its partner site in Hearts Content, Newfoundland, Canada.

### 14.1.4.3 Cork County Development Plan 2022-2028

#### 14.1.4.3.1 Archaeological Heritage

The Cork County Development Plan 2022-2028 came into effect on 6<sup>th</sup> June 2022. It outlines a number of objectives relating to archaeology as follows.

##### **HE 16-2: Protection of Archaeological Sites and Monuments**

Secure the preservation (i.e. preservation in situ or in exceptional cases preservation by record) of all archaeological monuments and their setting included in the Sites and Monuments Record (SMR) (see [www.archaeology.ie](http://www.archaeology.ie)) and the Record of Monuments and Places (RMP) and of sites, features and objects of archaeological and historical interest generally. In securing such preservation, the planning authority will have regard to the advice and recommendations of the Development Applications Unit of the Department of Housing, Local Government and Heritage as outlined in the Frameworks and Principles for the Protection of the Archaeological Heritage policy document or any changes to the policy within the lifetime of the Plan.

##### **HE 16-3: Underwater Archaeology**

Protect and preserve the archaeological value of underwater archaeological sites and associated underwater and terrestrial features. In assessing proposals for development, the development will take account of the potential underwater archaeology of rivers, lakes, wetlands, intertidal and sub-tidal environments through appropriate archaeological assessment by a suitably qualified archaeologist.

##### **HE 16-4: Zones of Archaeological Potential in Historic Towns and Settlements**

Proposed development works in Historic Towns and settlements, Zones of Archaeological Potential, Zones of Notification and the general historic environs in proximity to the zones, should take cognisance of the impact potential of the works, and all appropriate archaeological assessments employed to identify and mitigate the potential impacts.

##### **HE 16-5: Zones of Archaeological Potential**

Protect the Zones of Archaeological Potential (ZAPs) located within historic towns, urban areas and around archaeological monuments generally. Any development within the ZAPs will need to take cognisance of the upstanding and potential for subsurface archaeology, through appropriate archaeological assessment.

##### **HE 16-6: Industrial and Post Medieval Archaeology**

Protect and preserve industrial and post-medieval archaeology and long-term management of heritage features such as mills, limekilns, forges, bridges, piers and harbours, water-related engineering works and buildings, penal chapels, dwellings, walls and boundaries, farm buildings, estate features, military and coastal installations. There is a general presumption for retention of these structures and features. Proposals for appropriate redevelopment including conversion should be subject to an appropriate assessment and record by a suitably qualified specialist/s.

##### **HE 16-7: Battlefield, Ambush and Siege Sites and Defensive Archaeology**

Protect and preserve the defensive archaeological record of County Cork including strategic battlefield, ambush and siege sites, and coastal fortifications and their associated landscape due to their historical and cultural value. Any development within or adjoining these areas shall undertake a historic assessment by a suitably qualified specialist to ensure development does not negatively impact on this historic landscape.

#### **HE 16-8: Burial Places**

Protect all historical burial places and their setting in County Cork and encourage their maintenance and care in accordance with appropriate conservation principles.

#### **HE 16-9: Archaeology and Infrastructure Schemes**

All large-scale planning applications (i.e. development of lands on 0.5 ha or more in area or 1km or more in length) and Infrastructure schemes and proposed roadworks are subjected to an archaeological assessment as part of the planning application process which should comply with the Department of Arts, Heritage and the Gaeltacht's codes of practice. It is recommended that the assessment is carried out following pre planning consultation with the County Archaeologist, by an appropriately experienced archaeologist to guide the design and layout of the proposed scheme/development, safeguarding the archaeological heritage in line with Development Management Guidelines.

#### **HE 16-10: Management of Monuments within Development Sites**

Where archaeological sites are accommodated within a development it shall be appropriately conservation/ protection with provision for a suitable buffer zone and long-term management plan put in place all to be agreed in advance with the County Archaeologist.

#### **HE 16-11: Archaeological Landscapes**

To protect archaeological landscapes and their setting where the number and extent of archaeological monuments are significant and as a collective are considered an important archaeological landscape of heritage value.

#### **HE 16-12: Raising Archaeological Awareness**

As part of the Heritage Plan it is an objective to develop a management plan, if resources allow, for the archaeology of County Cork, which could include an evaluation of the Historic Character Assessment of Cork County helping to identify areas for tourism potential, and strategic research while also promoting best practice in archaeology and encouraging the interpretation, publication and dissemination of archaeological findings from the development application process.

#### **HE 16-13: Undiscovered Archaeological Sites**

To protect and preserve previously unrecorded archaeological sites within County Cork as part of any development proposals. The Council will require preservation in situ to protect archaeological monuments discovered. Preservation by record will only be considered in exceptional circumstances.

#### 14.1.4.3.2

#### **Built Heritage**

The CDP 2022 also outlines objectives relating to built heritage such as Protected Structures and those listed in the NIAH.

#### **HE 16-14: Record of Protected Structures**

- a) The identification of structures for inclusion in the Record will be based on criteria set out in the Architectural Heritage Protection Guidelines for Planning Authorities (2011).
- b) Extend the Record of Protected Structures in order to provide a comprehensive schedule for the protection of structures of special importance in the County during the lifetime of the Plan as resources allow.

- c) Seek the protection of all structures within the County, which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. In accordance with this objective, a Record of Protected Structures has been established and is set out in Volume Two Heritage and Amenity, Chapter 1 Record of Protected Structures.
- d) Ensure the protection of all structures (or parts of structures) contained in the Record of Protected Structures.
- e) Protect the curtilage and attendant grounds of all structures included in the Record of Protected Structures.
- f) Ensure that development proposals are appropriate in terms of architectural treatment, character, scale and form to the existing protected structure and not detrimental to the special character and integrity of the protected structure and its setting.
- g) Ensure high quality architectural design of all new developments relating to or which may impact on structures (and their settings) included in the Record of Protected Structures.
- h) Promote and ensure best conservation practice through the use of specialist conservation professionals and craft persons.
- i) In the event of a planning application being granted for development within the curtilage of a protected structure, that the repair of a protected structure is prioritised in the first instance i.e. the proposed works to the protected structure should occur, where appropriate, in the first phase of the development to prevent endangerment, abandonment and dereliction of the structure.

#### HE 16-15: Protection of Structures on the NIAH

Protect where possible all structures which are included in the NIAH for County Cork, that are not currently included in the Record of Protected Structures, from adverse impacts as part of the development management functions of the County.

#### HE 16-16: Protection of Non- Structural Elements of Built Heritage

Protect non-structural elements of the built heritage. These can include designed gardens/garden features, masonry walls, railings, follies, gates, bridges, shopfronts and street furniture. The Council will promote awareness and best practice in relation to these elements.

#### HE 16-17: Areas of Special Planning Control

Establish areas of special planning control within Architectural Conservation Areas where appropriate. These areas will include a scheme setting out objectives for the conservation and enhancement of the special character of the area, and will be based on an Architectural Appraisal of each town.

#### HE 16-18: Architectural Conservation Areas

Conserve and enhance the special character of the Architectural Conservation Areas included in this Plan. The special character of an area includes its traditional building stock, material finishes, spaces, streetscape, shopfronts, landscape and setting. This will be achieved by;

- (a) Protecting all buildings, structures, groups of structures, sites, landscapes and all other features considered to be intrinsic elements to the special character of the ACA from demolition and nonsympathetic alterations.
- (b) Promoting appropriate and sensitive reuse and rehabilitation of buildings and sites within the ACA and securing appropriate infill development.

- (c) Ensure new development within or adjacent to an ACA respects the established character of the area and contributes positively in terms of design, scale, setting and material finishes to the ACA.
- (d) Protect structures from demolition and non sympathetic alterations.
- (e) Promoting high quality architectural design within ACAs.
- (f) Seek the repair and re-use of traditional shopfronts and where appropriate, encourage new shopfronts of a high quality architectural design.
- (g) Ensure all new signage, lighting advertising and utilities to buildings within ACAs are designed, constructed and located in such a manner they do not detract from the character of the ACA.
- (h) Protect and enhance the character and quality of the public realm within ACAs. All projects which involve works within the public realm of an ACA shall undertake a character assessment of the said area which will inform a sensitive and appropriate approach to any proposed project in terms of design and material specifications. All projects shall provide for the use of suitably qualified conservation architects/ designers.
- (i) Protect and enhance the character of the ACA and the open spaces contained therein. This shall be achieved through the careful and considered strategic management of all signage, lighting, utilities, art works/pieces/paintings, facilities etc to protect the integrity and quality of the structures and spaces within each ACA.
- (j) Ensure the protection and reuse of historic street finishes, furniture and features which contribute to the character of the ACA.

#### **HE 16-19: Vernacular Heritage**

- a) Protect, maintain and enhance the established character, forms, features and setting of vernacular buildings, farmyards and settlements and the contribution they make to our architectural, archaeological, historical, social and cultural heritage and to local character and sense of place.
- b) Cork County Council encourages best conservation practice in the renovation and maintenance of vernacular buildings including thatched structures through the use of specialist conservation professionals and craft persons. Development proposals shall be accompanied by appropriate documentation compiled by experienced conservation consultant.
- c) There will generally be a presumption in favour of the retention of vernacular buildings and encouragement of the retention and re-use of vernacular buildings subject to normal planning considerations, while ensuring that the re-use is compatible with environmental and heritage protection.

#### **HE 16-20: Historic Landscapes**

- a) Recognise the contribution and importance of historic landscapes and their contribution to the appearance of the countryside, their significance as archaeological, architectural, historical and ecological resources.
- b) Protect the archaeological, architectural, historic and cultural element of the historic/heritage landscapes of the County of Cork.
- c) All new development within historic landscapes should be assessed in accordance with and giving due regard to Cork County Councils 'Guidance Notes for the Appraisal of Historic Gardens, Demesnes, Estates and their Settings' or any other relevant guidance notes or documents issued during the lifetime of the Plan.

#### 14.1.4.3.3

### Cultural Heritage

#### **HE 16-23: Cultural Heritage**

Protect and promote the cultural heritage of County Cork as an important economic asset and for its intrinsic value to identity of place and the well being of people within the County.

#### **HE 16-24: Naming of New Developments**

Promote and preserve local place names, local heritage and the Irish language by ensuring the use of local place names or geographical or cultural names which reflect the history and landscape of their setting in the naming of new residential and other developments. Such an approach will be a requirement of planning permissions for new developments.

#### **HE 16-25: Gaeltacht Areas Protect the linguistic and cultural heritage of the Gaeltacht areas of Cork by:**

- a) Encouraging development within the Gaeltacht and in the Gaeltacht Service Town of Macroom, which promotes, facilitates or complements the cultural heritage, including Irish language use;
- b) Encouraging development within the Gaeltacht and the Gaeltacht Service Town of Macroom, which provides employment or social facilities, especially, but not exclusively, where these are of relevance to local young people;
- c) Resisting development within the Gaeltacht, which would be likely to erode the cultural heritage (including the community use of Irish language), unless there are over-riding benefits for the long-term sustainability of the local community or for the proper planning and sustainable development of a wider area;
- d) Ensuring that where the County Council erects signs within the Gaeltacht, these have Irish as their primary language, unless there are positive and over-riding reasons for doing otherwise;
- e) Discouraging the exhibition of advertisements within the Gaeltacht which do not use Irish as their primary language;
- f) Consider the requirement for the use of demanding linguistic impact analyses with planning applications for particular major developments. These would be cases where the potential impact of the development on the use of Irish as the community language is not immediately apparent and pivotal in the determination of the application.
- g) Facilitate the preparation and implementation of local Gaeltacht Plans, Programmes and Initiatives, including Language Plans and Conservation Plans such as the Múscraí Heritage Plan, in the interests of the proper planning and sustainable development of Cork's Gaeltachts, provided that such plans are in keeping with Council policy.
- h) Encourage the use of the Irish language, not just in Gaeltacht areas but throughout the County, particularly with regard to service provision, planning and development and Council initiatives/activities.
- i) The use of the Irish language is promoted in the design of developments e.g. business advertising, recreational and community facilities are clearly identified and provided and shop-front signage should be in the Irish language;
- j) The Plan encourages collaboration between Gaeltacht stakeholders, Gaeltacht communities and State agencies in the future planning and development projects to ensure the protection and promotion of the Irish language as the community language



#### 14.1.4.4 **Statutory Consultations**

##### 14.1.4.4.1 **Cork / Kerry County Council**

A meeting was had with Kerry County Council on 1<sup>st</sup> March 2023. Dr Michael Connolly, the County Archaeologist, noted that archaeological monitoring of groundworks was carried out pursuant to the previous grants of planning permission on the lands. Any new grant of planning permission would be subject to an archaeological monitoring under licence condition. It is noted in Section 14.4.2, that mitigation will include for an archaeologist (under licence) to be present on-site during construction works to monitor all ground works and to ensure that no accidental damage occurs to the identified monuments detailed below.

Dr Michael Connolly also noted that buffer zones would be required around any monuments by means of a fence during the construction phase of the development. It is noted in Section 14.4.2 that where a buffer is required during the construction phase, this will take the form of fencing and will be erected 15m from the monument's outer extent. This will act as a protective buffer zone within which no machinery will be permitted to access.

Furthermore, Dr Michael Connolly noted that the visual impact of the Proposed Development will need to be assessed in relation to the designated Paps Mountains and Mangerton Mountain Archaeological Landscapes. Photomontages have been taken from these locations (Volume 2 – Photomontage Booklet) and an assessment of the visual impact on both the Paps Mountains and Mangerton Mountain Archaeological landscapes has been included below in Section 14.4.3 below.

##### 14.1.4.4.2 **National Monuments Service**

No scoping response was received from the National Monuments Service (NMS) or any other statutory consultee relevant to archaeology and culturally heritage.

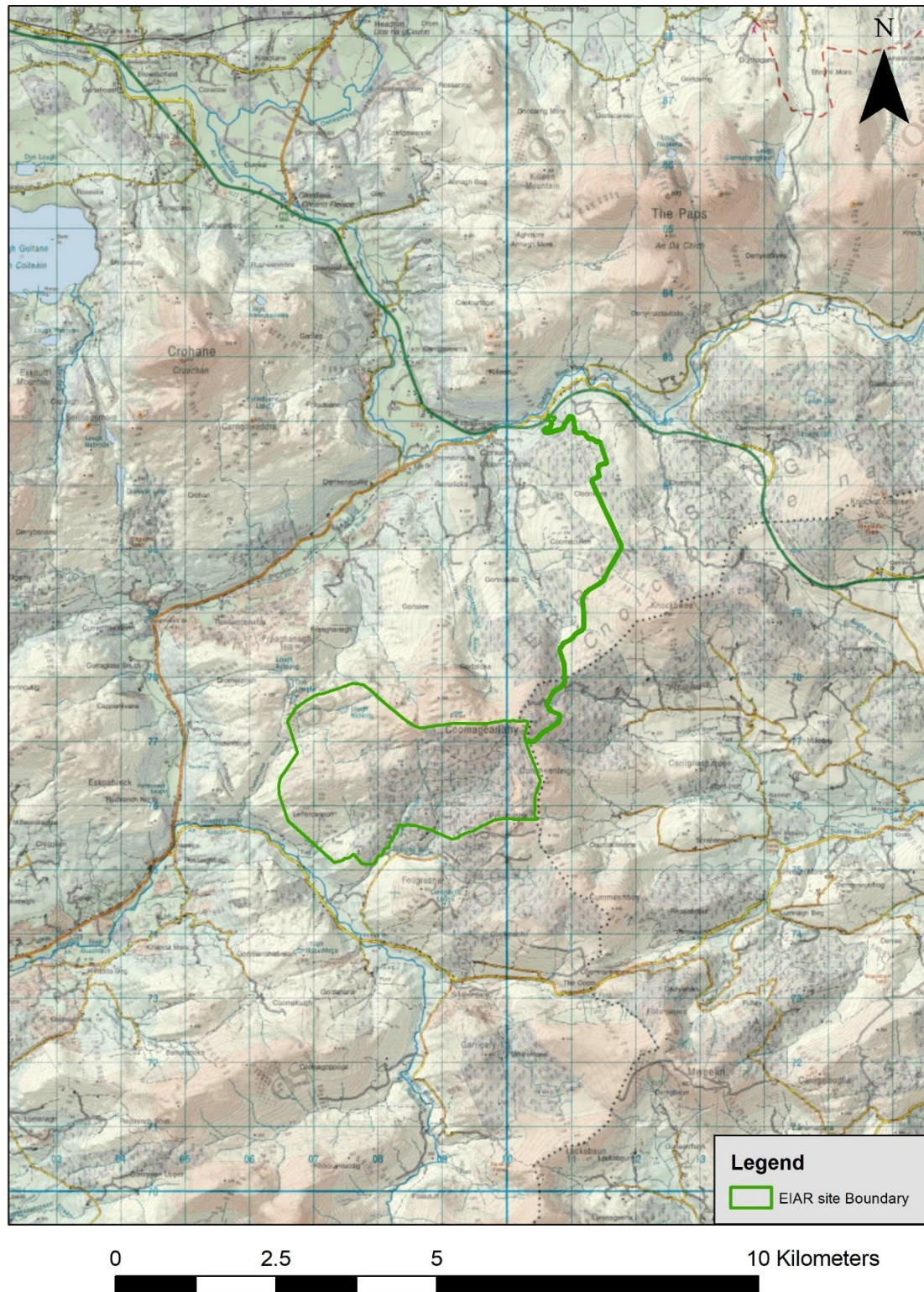


Figure 14.1: Site location map.

## 14.2 Assessment Methodology

The assessment of the archaeology, architecture and cultural heritage of the Proposed Development included geographic information system (GIS) mapping, desk-based research and field inspection.

### 14.2.1 Geographical Information Systems (GIS)

GIS is a computer database which captures, stores, analyses, manages and presents data that is linked to location. GIS is geographic information systems which includes mapping software and its application with remote sensing, land surveying, aerial photography, mathematics, photogrammetry, geography and tools that can be implemented with GIS software. GIS was used to manage the datasets relevant to the archaeological and architectural heritage assessment and for the creation of all the maps in this section of the report. This involved the overlaying of the relevant archaeological and architectural datasets on georeferenced aerial photographs and road maps (i.e. Environmental Systems Research Institute (Esri)), where available. The integration of this spatial information allows for the accurate measurement of distances of a Proposed Development from archaeological and cultural heritage sites and the extraction of information on 'monument types' from the datasets. Areas of archaeological or architectural sensitivity may then be highlighted in order to mitigate the potential negative effects of a development on archaeological, architectural and cultural heritage.

### 14.2.2 Desktop Assessment

The following sources were consulted as part of the desktop assessment for the Proposed Development:

- The Record of Monuments and Places (RMP)
- The Sites and Monuments Record (SMR)
- National Monuments in State Care County Kerry and Cork
- The Topographical Files of the National Museum of Ireland on [www.heritagemaps.ie](http://www.heritagemaps.ie)
- First edition Ordnance Survey maps (OSI)
- Second edition Ordnance Survey maps (OSI)
- Aerial photographs (copyright of Ordnance Survey Ireland (OSI))
- Excavations Database
- National Inventory of Architectural Heritage (NIAH)
- Record of Protected Structures
- Previous archaeological surveys and assessments carried out on or near to the Proposed Development area

Each of these are discussed in the following sections.

#### 14.2.2.1 Record of Monuments and Places, Sites and Monuments Record and National Monuments

A primary cartographic source and base-line data for the assessment was the consultation of the Sites and Monuments Record (SMR) and Record of Monuments and Places (RMP) for County Kerry and Cork. All known recorded archaeological monuments are indicated on 6-inch Ordnance Survey (OS) maps and are listed in these records. The SMR/RMP is not a complete record of all monuments as newly discovered sites may not appear in the list or accompanying maps. In conjunction with the consultation of the SMR and RMP the electronic database of recorded monuments and SMRs which may be accessed at [www.maps.archaeology.ie/historicenvironment](http://www.maps.archaeology.ie/historicenvironment) was also consulted.

A review of all National Monuments in State Care and those subject to Preservation Orders was also undertaken as part of the assessment.



#### 14.2.2.2 Cartographic Sources and Aerial Photography

The 1st (1840s) and 2nd (1900s) edition OS maps for the area were consulted as was OSI aerial photography.

#### 14.2.2.3 Topographical Files - National Museum of Ireland

Details relating to finds of archaeological material and monuments in numerous townlands in the country are contained in the topographical files held in the National Museum of Ireland. In order to establish if any new or previously unrecorded finds had been recovered from the Proposed Development area these files were consulted for each townland within and adjacent to the same. Heritage Maps ([www.heritagemaps.ie](http://www.heritagemaps.ie)) also contains locational detail for Museum find spots.

#### 14.2.2.4 Archaeological Inventory Series

Further information on archaeological sites may be obtained in the published County Archaeological Inventory series prepared by the Department of Housing, Local Government and Heritage. The archaeological inventories present summarised information on sites listed in the SMR/RMP and include detail such as the size and location of particular monuments, as well as any associated folklore or local information pertaining to each site. The inventories, however, do not account for all sites or items of cultural heritage interest which are undiscovered at the time of their publication. Many sites have been discovered since the publication of the Inventory Series, which have now been added to the Sites and Monuments Record.

#### 14.2.2.5 Record of Protected Structures

The Record of Protected Structures for County Kerry and Cork as listed in the County Development Plan was consulted for the schedule of buildings and items of cultural, historical or archaeological interest. A digital dataset for both County's RPS is available online and added to the GIS constraints mapping for this chapter.

#### 14.2.2.6 Excavations Database

The Excavations Database is an annual account of all excavations carried out under license. The database is available online at [www.excavations.ie](http://www.excavations.ie) and includes excavations from 1985 to 2023. This database was consulted as part of the desktop research for this assessment to establish if any archaeological excavations had been carried out within or near to the Proposed Development area.

#### 14.2.2.7 National Inventory of Architectural Heritage (NIAH)

This source lists some of the architecturally significant buildings and items of cultural heritage and is compiled on a county-by-county basis by the Department of Housing, Local Government and Heritage. The NIAH database was consulted for all townlands within and adjacent to the EIAR Site Boundary. The NIAH survey has been published and the digital dataset was downloaded on to the base mapping for the Proposed Development ([www.buildingsofireland.ie](http://www.buildingsofireland.ie)). The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the Department of Housing, Local Government and Heritage and established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999.

The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for Culture, Heritage and the Gaeltacht to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).

### 14.2.2.8 Previous Assessments

**Inchincoosh:** The archaeological assessment, carried out by Tobar Archaeological Services in 2006 included desktop research and a programme of field-walking to identify areas of archaeological potential within and outside the development site. Three previously undetected / unrecorded potential archaeological / historical monuments were detected during field inspection within the boundaries of the Proposed Development site. A further 20 recorded archaeological monuments are located within the limits of the proposed site boundary. Avoidance of the monuments was recommended in the interest of archaeological / historical preservation. Five recorded archaeological monuments occurred within 1km of the Proposed Development site and were avoided by the development. Monitoring of ground works associated with the development was recommended in order to record and protect any potential sub-surface remains which may exist on the site.

Furthermore, archaeological monitoring of ground works associated with the construction of a wind farm at Inchincoosh was carried out under licence (Licence No. 08E437) to determine if any archaeological features or deposits existed on the site. The development consists of the construction of a six-turbine wind farm in the Derrynasaggart Mountain range, Co. Kerry. Archaeological monitoring was requested as a condition of Planning Permission (Planning Ref. 07/1605 and 07/4364) by the planning authority, Kerry County Council. No archaeological finds were noted within the areas developed.

**Kilgarvan 1:** The field survey for the EIS was conducted on Saturday 23<sup>rd</sup> March 2002 to ascertain the visible presence of any features of archaeological significance. An extract from the EIS is detailed as follows: *Forestry plantation and the construction of a road and tracks have already severely disturbed the site of the proposed development. Field systems, which appeared in the 1897 map, have all been destroyed. Any surface or near surface feature of archaeological significance, which may have occurred within this area would have most likely been destroyed during forest development. Dense forest vegetation made it impossible to traverse the site of the proposed development (1,400 acres approximately). The survey inspected the northern and eastern perimeter of the site, which consisted of a thick peat cover with numerous rocky outcrops. Nothing of archaeological significance was noted. From the northwest corner of the site, the entire area of the proposed development can be viewed. A scan of this area with binoculars failed to reveal anything of archaeological significance. Based on this study there is no evidence of clearly defined archaeological activity on the proposed development site. Relatively little ground disturbance is associated with wind turbines. The quantity of land that will be taken up by site tracks and turbine hardstanding areas is approximately 18,100m<sup>2</sup>. The archaeological site of closest proximity to the proposed development is listed in the SMR, 1997, as an enclosure, monument number KE086 –003. It is in no danger of being disturbed by the proposed development. While the proposed development will not directly affect any known archaeological sites, it may impact any previously unrecorded archaeological sites, which might still remain undetected beneath the ground surface and be disturbed during ground operations. In order to accommodate the development the site will be clear felled.*

*Extensive earthmoving often reveals archaeological features. Other archaeological soils, features or deposits may also be exposed during topsoil removal. It is therefore recommended that: -An archaeologist monitor all topsoil removal on the site -In the event of the discovery of any archaeological features, the developer facilitate and fund an archaeologist's investigation and recording of the site and report the discovery to Duchas, The Heritage Service, 51 St. Stephen's Green, Dublin 2. -Artefacts discovered are reported to the Duty Officer of the National Museum of Ireland, Kildare Street, Dublin 2. -Forest harvesting take account of the Forestry and Archaeology Guidelines issued by the Forest Service'.*

**Lettercannon:** An extract from the EIA is as follows: *'According to the Sites and Monuments Record for Kerry County Council, the sole recorded archaeological feature located within the boundary of the Lettercannon site is that of a Sheepsfold, just east of the Thurehouma Stream. Turbine 1 was the nearest turbine to this feature. According to the Lettercannon Windfarm EIS submitted prior to the grant of planning the windfarm development will have no impact on this archaeological*

*feature. As part of the following planning permission to move Turbine 1, the proposed new location of T1 (c.480m away) will be further away from this monument than the turbine would be at its current permitted position (c.182m away). Thus the revised positioning of Turbine 1 will mean that any potential impact upon the cultural heritage of the area will be decreased even further. All archaeological monuments within the site will be avoided by the development. Monitoring of ground works associated with the development is recommended in order to record and protect any potential sub-surface remains which may exist on the site’.*

### 14.2.3 Field Inspection

The Proposed Development area was subject to a walk-over survey in May 2022 and again in July 2022. A photographic and descriptive record was made of the Proposed Development site and any features of interest therein.

#### 14.2.3.1 Limitations Associated with Fieldwork

No limitations were encountered during fieldwork.

### 14.2.4 Assessment of Likely Significant Effects

The likely effects on the existing archaeological, architectural and cultural heritage environment are assessed using the criteria as set out in the draft *Guidelines on the Information to be contained in Environmental Impact Assessment Reports* (EPA, 2022). The following terminology is used when describing the likely effects of the development from a Cultural Heritage perspective.

#### 14.2.4.1 Types of Impact

- Direct impacts arise where an archaeological heritage feature or site is physically located within the footprint of the development whereby the removal of part, or all of the feature or site is thus required.
- Indirect impacts may arise as a result of subsurface works undertaken outside the footprint of the development, secondary environmental change such as a reduction in water levels and visual impacts.
- Cumulative Impacts arise when the addition of many impacts create a larger, more significant impact.
- Residual Impacts are the degree of environmental changes that will occur after the proposed mitigation measures have been implemented.

##### 14.2.4.1.1 Magnitude of Effects (Significance)

- Profound: Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse, negative effects only. These effects arise where an archaeological site is completely and irreversibly destroyed.
- Very Significant: An effect which by its character, magnitude, duration or intensity significantly alters most of the sensitive aspect of the environment.
- Significant: An effect which by its character, magnitude, duration or intensity alters a sensitive aspect of the environment. An effect like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity and data about an archaeological site.
- Moderate: A moderate effect arises where a change to an archaeological site is proposed which though noticeable, is not such that the integrity of the site is compromised and which is reversible. This arises where an archaeological site can be incorporated into a modern day development without damage and that all procedures used to facilitate this are reversible.



- Slight: An effect which causes changes in the character of the environment which are not high or very high and do not directly impact or affect an archaeological site.
- Not Significant: An effect which causes noticeable changes in the character of the environment but without significant consequences.
- Imperceptible: An effect on an archaeological site capable of measurement but without noticeable consequences.

#### 14.2.5 Methodology for the assessment of impacts on visual setting (indirect effects)

A standardised approach was utilised for the assessment of impacts of visual setting (indirect effects) according to types of monuments and cultural heritage assets which may have varying degrees of sensitivity. This assessment includes visits to cultural heritage assets within the EIAR boundary only as other assets outside the EIAR boundary do not have public access. The assessment of impacts on visual setting was undertaken using both the Zone of Theoretical Visibility (ZTV) map in the Landscape and Visual Impact Assessment (LVIA), as presented in Chapter 12 of this EIAR, and also photomontage from specific cultural heritage assets.

Other components of the Proposed Development, i.e. grid connection and all other components of the Proposed Development site are not deemed to be as visually prominent as the proposed turbines.

While direct physical impacts to a site or monument can easily be assessed in quantitative terms, the assessment of impacts on setting can be subjective and as such is a matter of qualitative, professional judgement and experience. The distances below used in the assessment of impacts on setting are regarded as appropriate and are based on professional judgement.

Table 14-1: Cultural Heritage Assets considered according to sensitivity

| Cultural Heritage Asset   | Distance Considered from proposed turbines |
|---|--|
| UNESCO World Heritage Sites (including tentative sites)           | 20km                                       |
| National Monuments (State Ownership and Preservation Order Sites) | 10km                                       |
| Recorded Monuments, RPS   | 5km  |
| NIAH structures   | 5km  |
| Undesignated sites, if relevant                                   | 500m                                       |

The potential visual effects of the turbines on the setting of cultural heritage assets are graded according to two criteria:

1. **Distance to the nearest turbine:** Each increment of distance is numbered from 1-5 in severity with 1 being the lowest in severity (i.e. 4-5km from the nearest turbine and 5 being the most severe (0-1km from the nearest turbine)).
2. **Number of turbines visible on ZTV.** Each increment is also numbered from 1-4 with 1 being the least severe (i.e. 1-3 turbines visible) and 4 being the most severe (10+ turbines visible).

The number values are then multiplied to arrive at a potential effect (from Not Significant to Significant). Very Significant and Profound are reserved for adverse direct effects which result in the

total removal of cultural heritage assets which does not occur from visual impacts. The following table is used to ascertain the potential visual effect not assuming any vegetation, existing buildings, and any other screening in the landscape.

Table 14-2: Significance of Effects according to distance to nearest turbine and number of turbines visible.

| No of Turbines Visible (ZTV) | 1 -3 (1)              | 4 - 6 (2)     | 7 -9 (3)         | 10+ (4)              |                                   |                           |
|------------------------------|-----------------------|---------------|------------------|----------------------|-----------------------------------|---------------------------|
| Distance of asset to turbine |                       |               |                  |                      |                                   |                           |
| 4-5km (1)                    | 1                     | 2             | 3                | 4                    |                                   |                           |
| 3 -4km (2)                   | 2                     | 4             | 6                | 8                    |                                   |                           |
| 2-3km (3)                    | 3                     | 6             | 9                | 12                   |                                   |                           |
| 1- 2km (4)                   | 4                     | 8             | 12               | 16                   |                                   |                           |
| 0 -1km (5)                   | 5                     | 10            | 15               | 20                   |                                   |                           |
|                              |                       |               |                  |                      |                                   |                           |
| Imperceptible (0)            | Not Significant (1-5) | Slight (6-10) | Moderate (11-15) | Significant (16-20+) | Very Significant (does not occur) | Profound (does not occur) |

## 14.3 Existing Environment

### 14.3.1 Description of Proposed Development site

#### 14.3.1.1 Turbine 1



Plate 14-1: Proposed location of T1 to left of existing road looking SE.



Plate 14-2: Area of proposed turbine looking south.



Plate 14-3: Section of road to be widened looking west to the SW of Turbine 1.

#### 14.3.1.2 Turbine 2



Plate 14-4: Proposed section of hardstand for Turbine 2 looking E.





Plate 14-5: Proposed location of Turbine 2 looking W.



Plate 14-6: Same as above, more specific location of turbine 2.

### 14.3.1.3 Turbine 3



Plate 14-7: Existing road due for upgrade to Turbine 3 looking W.



Plate 14-8: Proposed location of T3 looking NE.



Plate 14-9: Existing road due for upgrade to T4 looking W.

#### 14.3.1.4 Turbine 4



Plate 14.10: Turbine 4 and part of hardstand looking NNW.



### 14.3.1.5 Turbine 5



Plate 14.11: General context of proposed Turbine 5 looking E.

### 14.3.1.6 Extension of Existing Borrow Pit South of T5



Plate 14.12: Proposed extension of existing borrow pit looking W.





Plate 14.13: Western section of proposed borrow pit looking W.

#### 14.3.1.7 Turbine 6



Plate 14.14: Proposed road from T5 to Turbine 6 (road widening) looking NW.



Plate 14.15: Additional section of road widening to the SE of Turbine 6 looking S.



Plate 14.16: Proposed location of Turbine 3 looking E.

#### 14.3.1.8 Turbine 7



Plate 14.17: Proposed location of T7 looking W.



*Plate 14.18: General context of Recorded Monuments KE085-050 – 052 looking W recorded by Annette Quinn during previous assessment of Inchincoosh.*

#### 14.3.1.9 Construction Compound



*Plate 14.19: Area of proposed construction compound looking E.*



### 14.3.1.10 Turbine 8



Plate 14.20: Proposed road to T8 looking S.



Plate 14.21: Area of proposed turbine 8 looking S.

### 14.3.1.11 Turbine 9



Plate 14.22: Turbine 9 looking west.



Plate 14.23: Proposed road to be upgraded looking east towards proposed turbine 9 location.



Plate 14.24: Section of road to be widened to the south of Turbine 9 looking north.



### 14.3.1.12 Turbine 10



*Plate 14.25: Existing road to be upgraded to the east of Turbine 10 looking East.*



*Plate 14.26: Proposed location of turbine 10 looking north.*



### 14.3.1.13 Turbine 11



*Plate 14.27: General location of proposed turbine 11 looking southwest.*



*Plate 14.28: Section of new road to the north of Turbine 11 looking east.*



*Plate 14.29: Eastern end of new section of road to the north of Turbine 11 looking west.*

#### 14.3.1.14 Proposed Haul Route (existing wind farm road)

The existing wind farm road is located and accessed just south of the N22. The site of the Proposed Development is due to be accessed via an existing entrance from the N22 at Clonkeen, using existing site roads, historically constructed as forestry roads and later facilitating the Existing Kilgarvan Wind Farm. The main access road is c. 7.9km in length and runs from the N22 to the entrance in the north-east corner of the Kilgarvan Wind Farm. There are no upgrades to the site entrance proposed, however some upgrades to the access road will be proposed as part of this application.

The delivery of all turbine components and construction materials to the site will be via the site entrance described above. From here, the vehicles will use the internal site roads to access the proposed infrastructure locations within the site.



Plate 14.30: Existing road due to be widened looking north.



Plate 14.31: Area due to be widened/upgraded looking WSW.





Plate 14.32: Area to be widened / upgraded.



Plate 14.33: Existing windfarm road looking south

#### 14.3.1.15 Cultural Heritage within the EIAR Site Boundary

##### 14.3.1.15.1 **Megalithic tomb in Lettercannon KE085-053001**

This is located in an area of an existing turbine and road. This turbine will be removed and no longer located adjacent to any proposed turbines. The nearest proposed turbine will be located 237m to the northeast (T11).





Plate 14.34: Monument KE085-053001 looking east.

14.3.1.15.2

### Hut Site at Lettercannon KE085-053002



Plate 14.35: Hut site KE085-053002 looking west adjacent to forestry.

14.3.1.15.3

### CH1 Hut site at ITM E507552, N575666

This is located 230m to the southwest of an existing turbine due to be removed and will measure 430m to the nearest proposed turbine T11 to the northeast.





Plate 14.36: CH1 rectangular hut site looking west

#### 14.3.1.15.4 **CH2 Field wall at ITM E507568, N575664**

This low-lying field wall is located to the east of CH1 rectangular hut and extends for approximately 20m.



Plate 14.37: Field wall located to the east of CH1 and orientated north/south looking north.



14.3.1.15.5 **CH3 Rectangular Hut site / House / Sheepfold at ITM E507553, N575881**



Plate 14.38: Rectangular hut site located 114m m to the west of the existing turbine (due to be removed) and 295m to the southwest of proposed turbine T11. Photo taken looking north.

14.3.1.15.6 **Building at Inchee KE086-012**

This monument is located to the north of the existing road and 82m east of the existing turbine due to be decommissioned. It is located 406m from the nearest proposed turbine to the west (T8).



Plate 14.39: SMR KE086-012 located to the north of the existing road and

## 14.3.2 Archaeological Heritage

Archaeological heritage includes UNESCO World Heritage Sites and those on the tentative list, National Monuments in State Care and those which are subject to a preservation order, sites listed in the RMP/SMR and newly discovered archaeological sites. Each of these are addressed in the following sections. Sub-surface archaeology is also addressed in the assessment.

### 14.3.2.1 UNESCO World Heritage Sites and those on Tentative List

No UNESCO sites or those on a tentative list are located within the 20km study area.

### 14.3.2.2 National Monuments in State Care / Ownership / Guardianship

National Monuments are those recorded monuments which are in the ownership / guardianship of the Minister for Housing, Local Government and Heritage. They are frequently referred to as being in 'State Care'. National Monuments also include those which are subject to a Preservation Order. No National Monuments are located within the Proposed Development site boundary or within 10km of the nearest proposed turbine.

### 14.3.2.3 Recorded Monuments within the EIAR Site Boundary

Six recorded monuments listed in the SMR are located within the EIAR Site Boundary. They are listed in Table 14-3 and shown on Figure 14.2.

Table 14-3: Recorded Monuments located within the EIAR Boundary

| SMR No.      | Class                          | Townland     | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------------|--------------------------------|--------------|--------|--------|------------|---------------------------------|
| KE085-050    | Hut site                       | Inchincosh   | 506731 | 577332 | T7         | 150                             |
| KE085-051    | Hut site                       | Inchincosh   | 506715 | 577333 | T7         | 165                             |
| KE085-052    | Hut site                       | Inchincosh   | 506689 | 577334 | T7         | 189                             |
| KE086-012    | Building                       | Inchee       | 508833 | 576635 | T8         | 405                             |
| KE085-053001 | Megalithic tomb - unclassified | Lettercannon | 507646 | 575845 | T11        | 238                             |
| KE085-053002 | Hut site                       | Lettercannon | 507646 | 575845 | T11        | 238                             |

#### 14.3.2.3.1 KE085-050 Hut site at Inchincosh

In rough grazing, 3m to the E of a stream. The remains of a roughly circular hut site (c. 4m N-S; c. 3m E-W) defined by a drystone wall (H 0.5-0.6m). The entrance is at N. The interior is concave. Another hut site (KE085-051—) lies c. 15m to the W. (pers. comm. A. Quinn, Tobar Archaeological Services)





Plate 14.40: Hut site looking NW.

#### 14.3.2.3.2 **KE085-051 Hut site at Inchincoosh**

In rough grazing, on the W side of a stream. The remains of a subrectangular hut site (4m E-W; 3m N-S) defined by a collapsed drystone wall. The hut site abuts outcropping rock at W. There is no apparent entrance. Another hut site (KE085-050—) lies c. 15m to the E. (pers. comm. A. Quinn, Tobar Archaeological Services).



Plate 14.41: Hut site looking W.



#### 14.3.2.3.3 **KE085-052 Hut site Inchincoosh**

In rough grazing. The remains of an oval hut site (8m E-W; 7m N-S) defined by a partially collapsed drystone wall (max. H 1m), abutting outcropping rock at S. There is no apparent entrance. Two other hut sites (KE085-050—, KE085-051—) lie c. 25m to the E and c. 40m to the E, respectively. (pers. comm. A. Quinn, Tobar Archaeological Services).



Plate 14.40: Hut site 1 looking S.

#### 14.3.2.3.4 **KE085-053001 Megalithic tomb – unclassified at Lettercannon**

Possible megalithic tomb identified by Miriam Carroll, Tobar Archaeological Services following monitoring of a wind farm at Lettercannon, Co. Kerry 17 February 2009. Two possible sites, located within 5m of each other, which were described as comprising 'of a possible stone hut site and a possible ruinous megalithic tomb, the latter is a very tentative suggestion'. Both are located within a windfarm (under construction) but are fenced off. Monuments described by Miriam Carroll as; 'The site consists of a stone feature in a small clearing surrounded by coniferous trees. It is comprised of three large stones situated on a low rise and was somewhat obscured by vegetation, The upper stone measures approximately 3m in length and rests on two underlying stones of similar length which may have fallen from an upright position. The precise nature of the site is unclear but may represent the remains of a small megalithic tomb.' Compiled by: Caimin O'Brien based on details provided by Miriam Carroll. Date of upload: 27 September 2022.

This monument is also described in Section 14.3.1.15 above in the context of the existing wind farm.

#### 14.3.2.3.5 **KE085-053002 Hut site at Lettercannon**

Possible hut site identified by Miriam Carroll, Tobar Archaeological Services following monitoring of a wind farm at Lettercannon, Co. Kerry 17 February 2009. Two possible sites, located within 5m of each other, which were described as comprising 'of a possible stone hut site and a possible ruinous megalithic tomb (KE085-053001-), the latter is a very tentative suggestion'. Both are located within a windfarm (under construction) but are fenced off. Hut site described by Miriam Carroll as; 'A possible stone hut was also noted c. 5m to the south-east (of KE085-053001-) and consists of an overgrown

circular arrangement of stones (diam. 2.6m).<sup>1</sup> Compiled by: Caimin O'Brien based on details provided by Miriam Carroll. Date of upload: 27 September 2022.

This monument is also described in Section 14.3.1.15 above in the context of the existing wind farm.

#### 14.3.2.3.6 **KE086-012 Building at Inchee**

Within an area of mature coniferous forestry which had been partially felled prior to development of a nearby wind farm. According to Carroll (2006), clear felling revealed the remains of a possible, rectangular, drystone-walled hut (c. 4.85m E-W; 3.8m N-S). An off-centre doorway (Wth c. 1.3m) is visible in the E wall. The walls of the possible hut survive to varying heights but on average measure between 0.6m and 0.9m. Compiled by: Matt Kelleher. Date of upload: 06 February 2012.

This monument is also described in Section 14.3.1.15 above in the context of the existing wind farm.

Impacts and Mitigation are addressed in Section 14.4 below.

#### 14.3.2.4 **New features recorded within the EIAR Boundary**

Three new archaeological / cultural heritage features were noted within the existing Lettercannon section of the Proposed Development (Figure 14-3). They are located adjacent to existing roads which were built as part of the Lettercannon windfarm. The latter roads will remain in situ with the nearest existing turbines to be removed. These structures are described in Section 14.3.1.15 above with potential impacts and mitigation measures addressed in Section 14.4.2.2.

Table 14-3: New features located within the EIAR Boundary.

| CH No. | Class       | Townland     | ITM E  | ITM N  | Distance to nearest existing turbine (m) | Distance to nearest proposed turbine (m) |
|--------|-------------|--------------|--------|--------|--|--|
| CH 1   | Hut / House | Lettercannon | 507552 | 575666 | 230m to T12 (Lettercannon)               | 430m to T11                              |
| CH 2   | Hut site    | Lettercannon | 507568 | 575664 | 230m to T12 (Lettercannon)               | 430m to T11                              |
| CH 3   | Hut site    | Lettercannon | 507555 | 575881 | 116m to T12 (Lettercannon)               | 294m to T11                              |

##### 14.3.2.4.1 **CH1 Hut site / House**

This is located 230m to the southwest of an existing turbine due to be removed and will measure 430m to the nearest proposed turbine T11 to the northeast.

##### 14.3.2.4.2 **CH2 Field wall**

This low-lying field wall is located to the east of CH1 rectangular hut and extends for approximately 20m. the distances are the same as CH1 in terms of existing and proposed infrastructure and turbines.

##### 14.3.2.4.3 **CH3 Rectangular Hut site / House / Sheepfold**

This rectangular structure is located 116m to the west of the existing T12 Lettercannon turbine which is due to be removed.



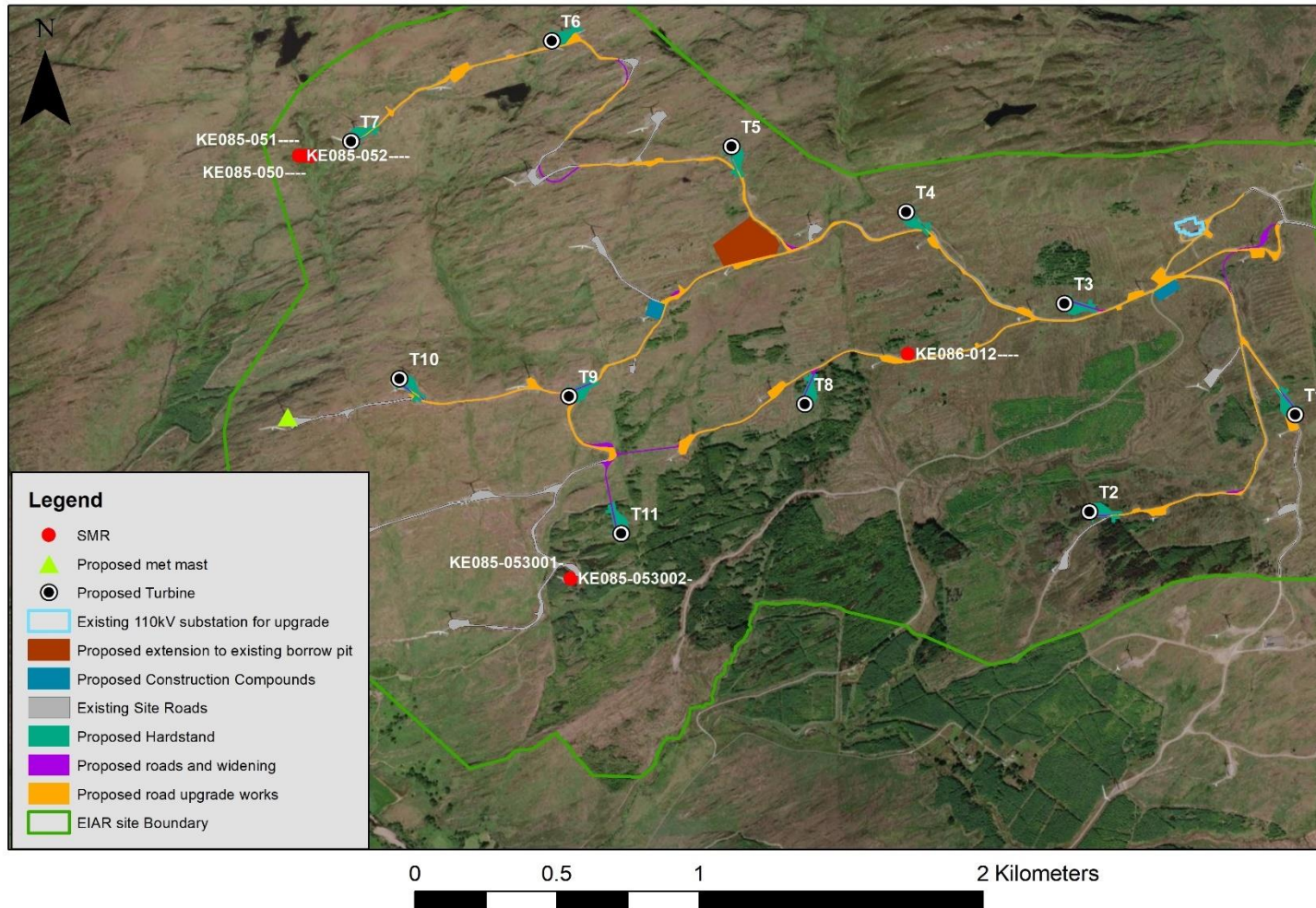


Figure 14-2: Recorded monuments within the ELAR boundary.



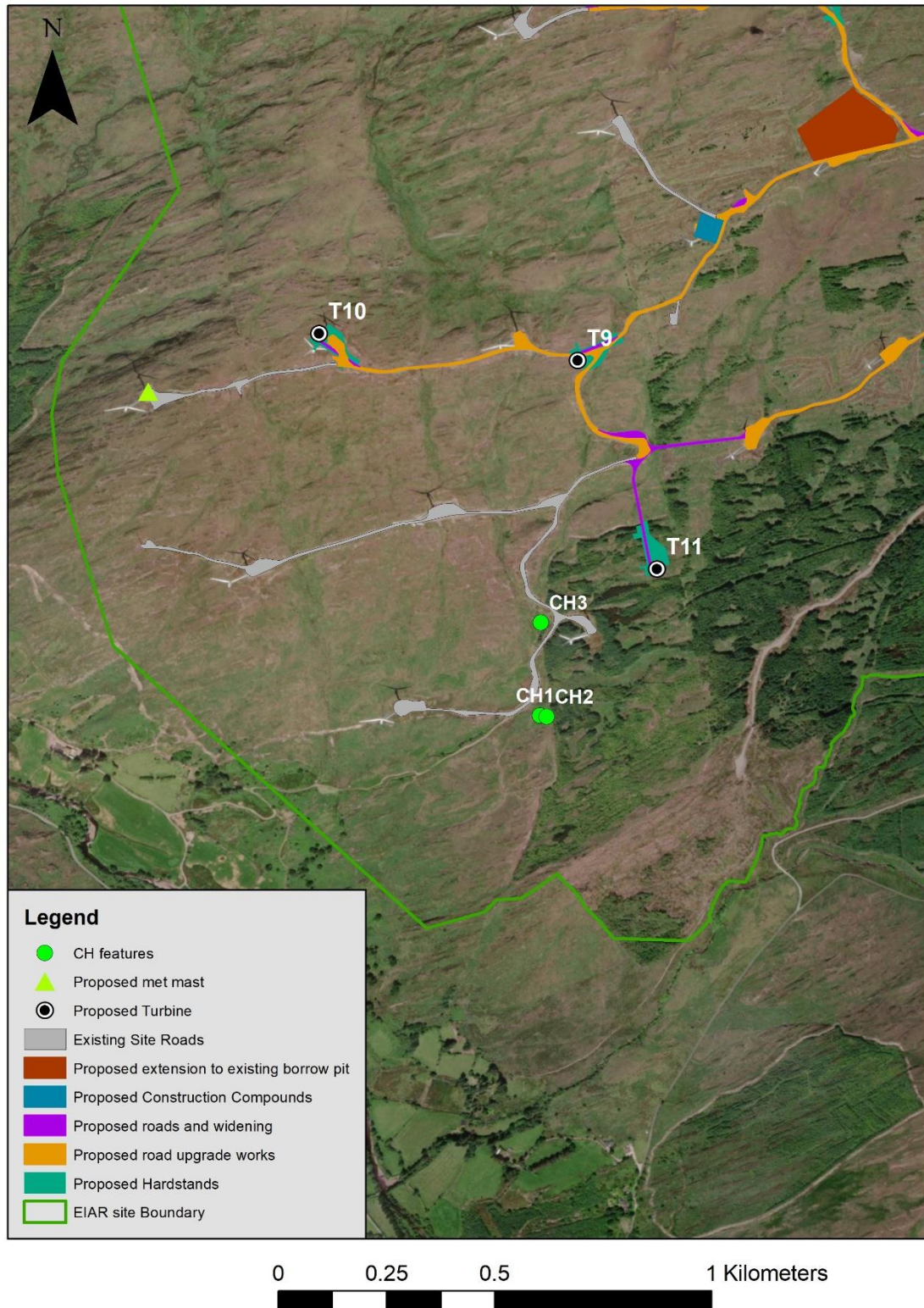


Figure 14-3: Cultural heritage features (CH1-3) within EIAR boundary.



### 14.3.2.5 Recorded Monuments within 5km of the nearest proposed turbine

A total of 121 archaeological monuments are located within 5km of the nearest proposed turbine and these are detailed in Table 14-3 below. The monuments are shown on Figure 14-4 with the nearest being located just over 800m from T10. Impacts and mitigation measures are addressed in Section 14.4 below.

Table 14-3: SMRs within 5km of the proposed turbines.

| Map ID | SMR NO.       | Class                 | Townland     | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|-----------------------|--------------|--------|--------|------------|---------------------------------|
| 1      | KE085-041007- | Hut site              | Lettercannon | 506243 | 576645 | T10        | 805                             |
| 2      | KE085-041004- | Enclosure             | Inchincoosh  | 506215 | 576849 | T7         | 847                             |
| 3      | KE085-041009- | Field boundary        | Inchincoosh  | 506198 | 576859 | T7         | 854                             |
| 4      | KE085-041005- | Hut site              | Inchincoosh  | 506215 | 576820 | T7         | 866                             |
| 5      | KE085-041006- | Hut site              | Inchincoosh  | 506215 | 576811 | T10        | 868                             |
| 6      | KE085-041001- | Hut site              | Inchincoosh  | 506155 | 576849 | T7         | 894                             |
| 7      | KE085-041003- | Field boundary        | Inchincoosh  | 506182 | 576814 | T7         | 895                             |
| 8      | KE085-041002- | Hut site              | Inchincoosh  | 506154 | 576830 | T7         | 907                             |
| 9      | KE085-041008- | Hut site              | Inchincoosh  | 506154 | 576827 | T7         | 908                             |
| 10     | KE085-023—    | Enclosure             | Lettercannon | 506187 | 576184 | T10        | 930                             |
| 11     | KE086-009—    | Standing stone - pair | Inchee       | 510290 | 577386 | T1         | 969                             |
| 12     | KE085-023001- | Enclosure             | Lettercannon | 506062 | 576077 | T10        | 1088                            |
| 13     | KE085-039005- | Hut site              | Inchincoosh  | 505682 | 576761 | T7         | 1343                            |
| 14     | KE085-039002- | Hut site              | Inchincoosh  | 505674 | 576761 | T7         | 1350                            |

| Map ID | SMR NO.       | Class          | Townland                                       | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|----------------|--|--------|--------|------------|---------------------------------|
| 15     | KE085-040—    | Hut site       | Inchincoosh                                    | 505678 | 576486 | T10        | 1366                            |
| 16     | KE085-022003- | Hut site       | Inchincoosh                                    | 505724 | 576172 | T10        | 1371                            |
| 17     | KE085-022004- | Enclosure      | Inchincoosh                                    | 505706 | 576210 | T10        | 1379                            |
| 18     | KE085-022—    | Enclosure      | Inchincoosh                                    | 505716 | 576145 | T10        | 1387                            |
| 19     | KE085-039001- | Enclosure      | Inchincoosh                                    | 505558 | 576806 | T7         | 1435                            |
| 20     | KE085-022001- | Hut site       | Inchincoosh                                    | 505668 | 576117 | T10        | 1441                            |
| 21     | KE085-039003- | Hut site       | Inchincoosh                                    | 505606 | 576695 | T7         | 1441                            |
| 22     | KE085-022002- | Hut site       | Inchincoosh                                    | 505661 | 576139 | T10        | 1441                            |
| 23     | KE085-039004- | Enclosure      | Inchincoosh                                    | 505578 | 576666 | T10        | 1469                            |
| 24     | CO057-014—    | Hut site       | Com uí chlúmháin                               | 512035 | 576467 | T1         | 1840                            |
| 25     | KE086-003—    | Building       | Inchee   | 508300 | 574202 | T11        | 1864                            |
| 26     | CO057-013002- | Hut site       | Com uí chlúmháin                               | 512138 | 576413 | T1         | 1943                            |
| 27     | CO057-013001- | Hut site       | Com uí chlúmháin                               | 512145 | 576410 | T1         | 1950                            |
| 28     | KE086-010—    | Standing stone | Coomacullen                                    | 510877 | 578335 | T1         | 2031                            |
| 29     | KE085-045—    | Bridge         | Gortlahard (glanarought by., glanleed), inchee | 507713 | 573957 | T11        | 2050                            |
| 30     | KE085-008—    | Enclosure      | Inchincoosh                                    | 504799 | 576160 | T10        | 2277                            |

| Map ID | SMR NO.       | Class                      | Townland                          | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|----------------------------|-----------------------------------|--------|--------|------------|---------------------------------|
| 31     | KE085-008001- | Children's burial ground   | Inchincosh                        | 504799 | 576160 | T10        | 2277                            |
| 32     | KE086-004002- | Standing stone             | GORT AN tsléibhe                  | 508495 | 579830 | T6         | 2283                            |
| 33     | CO057-010—    | Kiln - lime                | An inse mhór (tc sliabh riabhach) | 512204 | 577539 | T1         | 2298                            |
| 34     | KE086-004003- | Cairn - radial-stone cairn | GORT AN tsléibhe                  | 508527 | 579834 | T6         | 2300                            |
| 35     | KE086-004001- | Standing stone - pair      | GORT AN tsléibhe                  | 508507 | 579847 | T6         | 2304                            |
| 36     | CO057-009—    | Ritual site - holy well    | An inse mhór (tc sliabh riabhach) | 512272 | 577561 | T1         | 2369                            |
| 37     | KE085-021—    | Enclosure                  | Redtrench north                   | 504492 | 576968 | T7         | 2415                            |
| 38     | KE086-001001- | Ringfort - cashel          | GORT AN tsléibhe                  | 508412 | 580073 | T6         | 2479                            |
| 39     | KE086-001003- | Hut site                   | GORT AN tsléibhe                  | 508418 | 580077 | T6         | 2484                            |
| 40     | KE086-001002- | Field boundary             | GORT AN tsléibhe                  | 508425 | 580094 | T6         | 2503                            |
| 41     | CO057-005—    | Kiln - lime                | An inse mhór (tc sliabh riabhach) | 512455 | 577587 | T1         | 2542                            |
| 42     | CO057-008008- | Hut site                   | An inse mhór (tc sliabh riabhach) | 512444 | 577741 | T1         | 2607                            |
| 43     | CO057-008002- | Hut site                   | An inse mhór (tc sliabh riabhach) | 512418 | 577828 | T1         | 2630                            |
| 44     | KE085-044—    | Bridge                     | Redtrench north,rosseight ragh    | 504715 | 575305 | T10        | 2639                            |

| Map ID | SMR NO.       | Class          | Townland   | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|----------------|--|--------|--------|------------|---------------------------------|
| 45     | CO057-008004- | Enclosure      | An inse mhór (tc sliabh riabhach)                  | 512443 | 577835 | T1         | 2655                            |
| 46     | CO057-008001- | Field boundary | An inse mhór (tc sliabh riabhach)                  | 512440 | 577841 | T1         | 2656                            |
| 47     | CO057-008003- | Hut site       | An inse mhór (tc sliabh riabhach)                  | 512439 | 577847 | T1         | 2658                            |
| 48     | CO057-008006- | Hut site       | An inse mhór (tc sliabh riabhach)                  | 512495 | 577784 | T1         | 2673                            |
| 49     | CO057-008005- | Enclosure      | An inse mhór (tc sliabh riabhach)                  | 512500 | 577782 | T1         | 2676                            |
| 50     | CO057-008007- | Fulacht fia    | An inse mhór (tc sliabh riabhach)                  | 512595 | 577659 | T1         | 2700                            |
| 51     | KE085-037—    | Bridge         | Crohane (magunihy by., flesk ed), curraglass north | 504486 | 578952 | T7         | 2854                            |
| 52     | KE076-051001- | Burnt spread   | GORT AN tsléibhe                                   | 508700 | 580372 | T6         | 2862                            |
| 53     | KE076-016—    | Hut site       | Gortalicka   | 508917 | 580274 | T6         | 2867                            |
| 54     | KE076-051002- | Burnt spread   | GORT AN tsléibhe                                   | 508648 | 580422 | T6         | 2889                            |
| 55     | KE086-008—    | Standing stone | Gortalicka   | 509326 | 580085 | T6         | 2926                            |
| 56     | KE095-006—    | Country house  | Sillahertane                                       | 509382 | 573149 | T2         | 2932                            |
| 57     | KE076-051003- | Burnt spread   | GORT AN tsléibhe                                   | 508596 | 580490 | T6         | 2933                            |
| 58     | KE076-051004- | Fulacht fia    | GORT AN tsléibhe                                   | 508552 | 580509 | T6         | 2936                            |



| Map ID | SMR NO.       | Class                        | Townland                          | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|------------------------------|-----------------------------------|--------|--------|------------|---------------------------------|
| 59     | KE075-029—    | Hut site                     | Derreenacullig                    | 507159 | 580681 | T6         | 2972                            |
| 60     | KE075-029001- | Hut site                     | Derreenacullig                    | 507164 | 580682 | T6         | 2972                            |
| 61     | KE085-015—    | Redundant record             | Rosseightragh                     | 504501 | 574782 | T10        | 3095                            |
| 62     | KE076-038—    | Megalithic tomb - wedge tomb | Gortalicka                        | 508987 | 580591 | T6         | 3181                            |
| 63     | KE075-028—    | Hut site                     | Derreenacullig                    | 507189 | 580926 | T6         | 3211                            |
| 64     | CO057-006—    | Field boundary               | An inse mhór (tc sliabh riabhach) | 512568 | 578626 | T1         | 3239                            |
| 65     | KE086-011—    | Standing stone               | Coomacullen                       | 511354 | 579454 | T1         | 3246                            |
| 66     | KE075-027001- | Field boundary               | Derreenacullig                    | 506814 | 580963 | T6         | 3314                            |
| 67     | KE075-027—    | Enclosure                    | Derreenacullig                    | 506814 | 580993 | T6         | 3343                            |
| 68     | KE075-040—    | Field system                 | Crohane (magunihy by., flesk ed)  | 506619 | 580962 | T6         | 3363                            |
| 69     | KE076-070—    | Standing stone               | Gortnakilla                       | 509411 | 580567 | T6         | 3370                            |
| 70     | KE075-045—    | Hut site                     | Crohane (magunihy by., flesk ed)  | 506552 | 580980 | T6         | 3400                            |
| 71     | KE075-044001- | Hut site                     | Crohane (magunihy by., flesk ed)  | 506549 | 580998 | T6         | 3418                            |
| 72     | KE075-044002- | Hut site                     | Crohane (magunihy by., flesk ed)  | 506549 | 581001 | T6         | 3421                            |

| Map ID | SMR NO.       | Class                        | Townland                          | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|------------------------------|-----------------------------------|--------|--------|------------|---------------------------------|
| 73     | KE075-041—    | Enclosure                    | Crohane (magunihy by., flesk ed)  | 506587 | 581014 | T6         | 3422                            |
| 74     | KE075-043—    | Hut site                     | Crohane (magunihy by., flesk ed)  | 506538 | 581001 | T6         | 3424                            |
| 75     | KE075-042—    | Hut site                     | Crohane (magunihy by., flesk ed)  | 506538 | 581006 | T6         | 3429                            |
| 76     | KE075-039002- | Hut site                     | Crohane (magunihy by., flesk ed)  | 506615 | 581042 | T6         | 3441                            |
| 77     | KE075-039001- | Hut site                     | Crohane (magunihy by., flesk ed)  | 506611 | 581042 | T6         | 3442                            |
| 78     | CO057-007—    | Enclosure                    | An inse mhór (tc sliabh riabhach) | 512761 | 578718 | T1         | 3443                            |
| 79     | KE076-056—    | Megalithic tomb - wedge tomb | Gortnakilla                       | 509370 | 580685 | T6         | 3448                            |
| 80     | KE076-056001- | Field boundary               | Gortnakilla                       | 509369 | 580691 | T6         | 3453                            |
| 81     | KE076-017—    | Redundant record             | Gortnakilla                       | 509583 | 580594 | T6         | 3489                            |
| 82     | CO057-011—    | Kiln - lime                  | An inse mhór (tc sliabh riabhach) | 513503 | 577564 | T1         | 3499                            |
| 83     | CO057-001—    | Kiln - lime                  | An inse mhór (tc sliabh riabhach) | 513504 | 577580 | T1         | 3506                            |
| 84     | CO057-002001- | Kiln - lime                  | Na millíní                        | 513706 | 577330 | T1         | 3626                            |
| 85     | KE085-020—    | Enclosure                    | Derrybanane                       | 504078 | 579758 | T7         | 3665                            |
| 86     | CO057-002002- | Redundant record             | Na millíní                        | 513750 | 577321 | T1         | 3667                            |

| Map ID | SMR NO.       | Class                        | Townland                         | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|------------------------------|----------------------------------|--------|--------|------------|---------------------------------|
| 87     | CO057-012—    | Structure                    | Na millini                       | 513684 | 577663 | T1         | 3703                            |
| 88     | CO057-004—    | Kiln - lime                  | Na millini                       | 513779 | 577535 | T1         | 3753                            |
| 89     | KE085-001—    | Megalithic tomb - wedge tomb | Crohane (magunihy by., flesk ed) | 504171 | 580001 | T7         | 3760                            |
| 90     | KE076-059—    | Bridge                       | Derreenacullig ,dromavrauka      | 508525 | 581418 | T6         | 3799                            |
| 91     | KE076-015—    | Ritual site - holy well      | Dromavrauka                      | 508863 | 581364 | T6         | 3846                            |
| 92     | KE076-015002- | Cross-inscribed stone        | Dromavrauka                      | 508863 | 581364 | T6         | 3846                            |
| 93     | KE076-015003- | Cross-inscribed stone        | Dromavrauka                      | 508863 | 581364 | T6         | 3846                            |
| 94     | KE076-015001- | Cross-inscribed stone        | Dromavrauka                      | 508863 | 581365 | T6         | 3847                            |
| 95     | KE076-015004- | Cross-inscribed stone        | Dromavrauka                      | 508863 | 581365 | T6         | 3847                            |
| 96     | KE076-015005- | Cross-inscribed stone        | Dromavrauka                      | 508863 | 581365 | T6         | 3847                            |
| 97     | CO057-003—    | Redundant record             | Na millini                       | 513967 | 577254 | T1         | 3862                            |
| 98     | KE076-018002- | Hut site                     | Coomacullen                      | 510547 | 580726 | T4         | 3981                            |
| 99     | KE086-007—    | Megalithic structure         | Derryreag                        | 512529 | 579681 | T1         | 4008                            |
| 100    | KE076-018003- | Redundant record             | Coomacullen                      | 510488 | 580790 | T4         | 4014                            |
| 101    | KE076-018—    | Field boundary               | Coomacullen                      | 510542 | 580771 | T4         | 4019                            |



| Map ID | SMR NO.       | Class                     | Townland                              | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|---------------------------|---------------------------------------|--------|--------|------------|---------------------------------|
| 102    | KE076-018001- | Hut site                  | Coomacullen                           | 510542 | 580810 | T4         | 4055                            |
| 103    | CO068-001—    | Kiln - lime               | RÉ NA bpobal                          | 513921 | 574578 | T1         | 4157                            |
| 104    | CO069-076—    | Stone circle - five-stone | An Iománach mhór                      | 514226 | 575394 | T1         | 4160                            |
| 105    | KE085-042—    | Hut site                  | Derrybanane                           | 503666 | 580172 | T7         | 4248                            |
| 106    | KE075-020—    | Redundant record          | Foilduane                             | 507750 | 582000 | T6         | 4265                            |
| 107    | KE085-031—    | Enclosure                 | Caher (glánarought by.)               | 503253 | 574518 | T10        | 4299                            |
| 108    | KE076-011001- | Children's burial ground  | Inch (magunihy by., brewsterfield ed) | 508639 | 581907 | T6         | 4301                            |
| 109    | KE076-011002- | Cross-slab                | Inch (magunihy by., brewsterfield ed) | 508639 | 581908 | T6         | 4302                            |
| 110    | KE076-011004- | Leacht                    | Inch (magunihy by., brewsterfield ed) | 508654 | 581907 | T6         | 4305                            |
| 111    | KE076-011005- | Cross-inscribed stone     | Inch (magunihy by., brewsterfield ed) | 508654 | 581907 | T6         | 4305                            |
| 112    | KE076-011003- | Ecclesiastical enclosure  | Inch (magunihy by., brewsterfield ed) | 508640 | 581926 | T6         | 4320                            |

| Map ID | SMR NO.       | Class                    | Townland  | ITM E  | ITM N  | Turbine ID | Distance to nearest turbine (m) |
|--------|---------------|--------------------------|---|--------|--------|------------|---------------------------------|
| 113    | KE076-065—    | Kiln - lime              | Dromavrauka   | 509492 | 581724 | T6         | 4421                            |
| 114    | KE086-002—    | Road - road/track way    | Derryreag   | 512805 | 580064 | T1         | 4481                            |
| 115    | KE076-061—    | Bridge                   | Coomacullen   | 509701 | 581816 | T6         | 4597                            |
| 116    | KE076-060—    | Bridge                   | Coomacullen, killeen (magunihy by., brewsterfield ed) | 509758 | 581956 | T6         | 4747                            |
| 117    | KE085-014—    | Ringfort - rath          | Creggeen  | 502361 | 574938 | T10        | 4951                            |
| 118    | KE085-014002- | Children's burial ground | Creggeen  | 502385 | 574862 | T10        | 4954                            |
| 119    | KE085-014001- | Souterrain               | Creggeen  | 502352 | 574946 | T10        | 4957                            |
| 120    | CO069-085—    | Standing stone           | Doire an chuillinn                                    | 514976 | 575034 | T1         | 4978                            |
| 121    | KE085-013—    | Ringfort - rath          | Churchground  | 502188 | 575012 | T10        | 5092                            |

#### 14.3.2.5.1 Hut Sites

There are 35 hut sites within the 5km study area. The primary function and date of hut sites is slightly ambiguous. Examples of hut sites are known throughout the country, particularly in upland regions, and are frequently associated with the practice of transhumance or booleying. Transhumance refers to the practice of the seasonal movement of people and their livestock typically to higher pastures in the summer and lower valleys in the winter. In Ireland this practice is known as booleying and is believed to date to the early medieval period, although it continued well into the nineteenth and early twentieth century.

Other uses for hillside huts have been noted at Mount Brandon, County Kerry, where it is suggested that they functioned as temporary habitations for seaborne pilgrims. It is also thought that they were used as habitation sites such as booleying huts during the year when pilgrimage was not taking place. An extensive series of pre-bog walls were also noted on the southern slopes of Mount Brandon. It is noted in that instance that although pre-dating the bog, the peat may still have been growing well into the medieval period. In this regard, such walls could be early medieval in date rather than prehistoric (Archaeology Ireland Heritage Guide No. 29). Furthermore, the potentially lengthy chronology of hut

sites means that while some may be prehistoric others may date to the early or later medieval period or indeed to more modern times (ibid.).

#### 14.3.2.5.2 **Field Systems**

One field system is located within 5km with associated Hut Sites. It is located in rough commonage, on the break of a rocky S-facing slope. This system covers an area measuring c. 100m x 100m and comprises relict field walls (T c. 0.5m; H 0.65m) which enclose irregular areas divided by rock outcrops, particularly on the N side. Elsewhere, isolated stretches of wall appear and disappear above the surface of the bog, showing no discernible pattern. Two hut sites (KE075-039001-, KE075-039002-) are c. 30m to the N.

#### 14.3.2.5.3 **Fulacht fia**

Two fulachta fia are located within 5km of the proposed turbines. They consist of a horseshoe-shaped or kidney-shaped mound consisting of fire-cracked stone and charcoal-enriched soil built up around a sunken trough located near or adjacent to a water supply, such as a stream or spring, or in wet marshy areas. The first recorded use of the Irish term 'fulacht fiadh/fia' (cooking pit of the deer or of the wild) as relating to ancient cooking sites was in the 17th century. These are generally interpreted to have been associated with cooking and date primarily to the Bronze Age (c. 2400-500 BC).

#### 14.3.2.5.4 **Standing Stones, Stone Pairs, Stone Circles and Radial Stone Cairn**

There are 6 standing stones, 2 stone pairs and 1 stone circle within the 5km study area. One radial stone cairn is also within the latter 5km zone. Radial stone cairns are somewhat enigmatic monuments which are believed to be Bronze Age in date through their occasional association with stone circles, stone rows and pairs of standing stones (Power *et al.* 1992, 26). The monument consists of a circular arrangement of twelve radially set stones with the two tallest stones at the south-west forming an entrance like feature. Radial cairns are distinctive monuments and are so-called due to the alignment of the stone's long axes towards the centre of the circle. They are known in small numbers and are concentrated in the south-west of Ireland in counties Cork and Kerry. One radial stone cairn at Kealkill, Co. Cork was excavated by Ó Ríordáin in the late 1930s. While the excavation did not establish a function or date for the monument, they are believed to be Bronze Age burial monuments. Usually these sites consist of a cairn of stones edged by the radially set stones around its perimeter.

Standing stones are a common feature of the prehistoric Irish landscape consisting of single, upright stones. They are known by various names such as gallán, dallán and long stone. All standing stones are not necessarily of the same date or have the same function. Excavations of standing stones have shown that some mark prehistoric burials and some may have had a ritual or commemorative function. They have similar axis to standing stone pairs and may therefore date to the Bronze Age (2400-500BC).

Multiple stone circles are a distinctive form of stone circle found only in counties Cork and Kerry. It comprises a ring of free-standing stones, uneven in number (between 7 and 19) and symmetrically arranged so that one stone, the axial stone, is set directly opposite two stones, usually the tallest, marking the entrance to the circle. Characteristically, the stones reduce in height to the axial stone, which is set consistently in the south-western part of the circle. The diameters of these circles rarely exceed 10m. These circles form part of the funerary/ritual tradition of the Bronze Age (c. 2400-500 BC). Five stone circles are also a distinctive form of stone circle found only in counties Cork and Kerry. It comprises a ring of five free-standing stones, symmetrically arranged so that one stone, the axial stone, is set directly opposite two stones, usually the tallest, marking the entrance to the circle. Characteristically, the stones reduce in height to the axial stone, which is set consistently in the south-western part of the circle. These circles are thought to have a ritual function and are dated to the Bronze Age (c. 2400-500 BC).



#### 14.3.2.5.5 **Megalithic Tombs**

Three wedge tombs and one miscellaneous tomb are located within the study area. They are the most widespread of the megalithic tomb types found in Ireland. Their name is derived from a wedge-shaped chamber which is usually higher and wider at one end. Wedge tombs were used as places of burial and can contain both burnt and unburnt human remains as well as grave goods such as pottery.

Radiocarbon dates from a number of excavated wedge tombs suggests a late Neolithic-Early Bronze Age (2500-1800 BC) date for these monuments.

#### 14.3.2.5.6 **Ringforts, Enclosures and Souterrain**

There are 19 ringforts and enclosures and 1 souterrain within the 5km study area. Ringforts comprise earthen monuments while cashels take a similar form to the latter but are constructed using stone. Enclosures may represent the remains of ringforts or cashels but may not retain enough features to classify them as such or fall outside the acceptable size range for these monuments. Ringforts consist of a circular or roughly circular area enclosed by an earthen bank formed by material thrown up from the digging of a concentric ditch on its outside. Ringforts are usually enclosed by a single bank (univallate) while bivallate or trivallate ringforts i.e. those enclosed by double or triple rings of banks are less common. The number of banks and ditches enclosing these monuments are considered to reflect the status of the site, rather than the strengthening of its defences. Archaeological excavation has shown that the majority of ringforts functioned as enclosed farmsteads, built during the Early Christian period (5th – 9th century A.D.). Excavation within the interior of the monuments has traced the remains of circular and rectangular dwelling houses as well as smaller huts probably used to stall animals. The enclosing earthworks would also have protected domestic livestock from natural predators such as wolves and foxes. Souterrains are frequently associated with ringforts, cashels and enclosures. Souterrains derive their name from the French *sous terrain* meaning ‘underground’ and comprise an underground structure consisting of one or more chambers connected by narrow passages or creepways, usually constructed of drystone-walling with a lintelled roof over the passages and a corbelled roof over the chambers. Most souterrains appear to have been built in the early medieval period by ringfort inhabitants (c. 500 - 1000 AD) as a defensive feature and/or for storage.

#### 14.3.2.5.7 **Ecclesiastical Enclosures**

One example is located in Inch townland and is located in level pasture, in the valley of the Flesk River. A low grass-covered bank (Wth 2.2m; int. H 0.3m; ext. H 0.6m) of earth and stone, curves gradually for c. 60m forming the SW arc of the enclosing element of a children's burial ground (KE076-011001-). This bank appears to be part of a large enclosure associated with a nearby cross-slab (KE076-011001-) and leacht (KE076-011004-).

#### 14.3.2.5.8 **Limekilns**

There are 8 post medieval limekilns within the 5km study area. Lime kilns comprise a structure in which lime is made by calcining limestone. They date from the medieval period (5th-16th centuries AD) onwards.

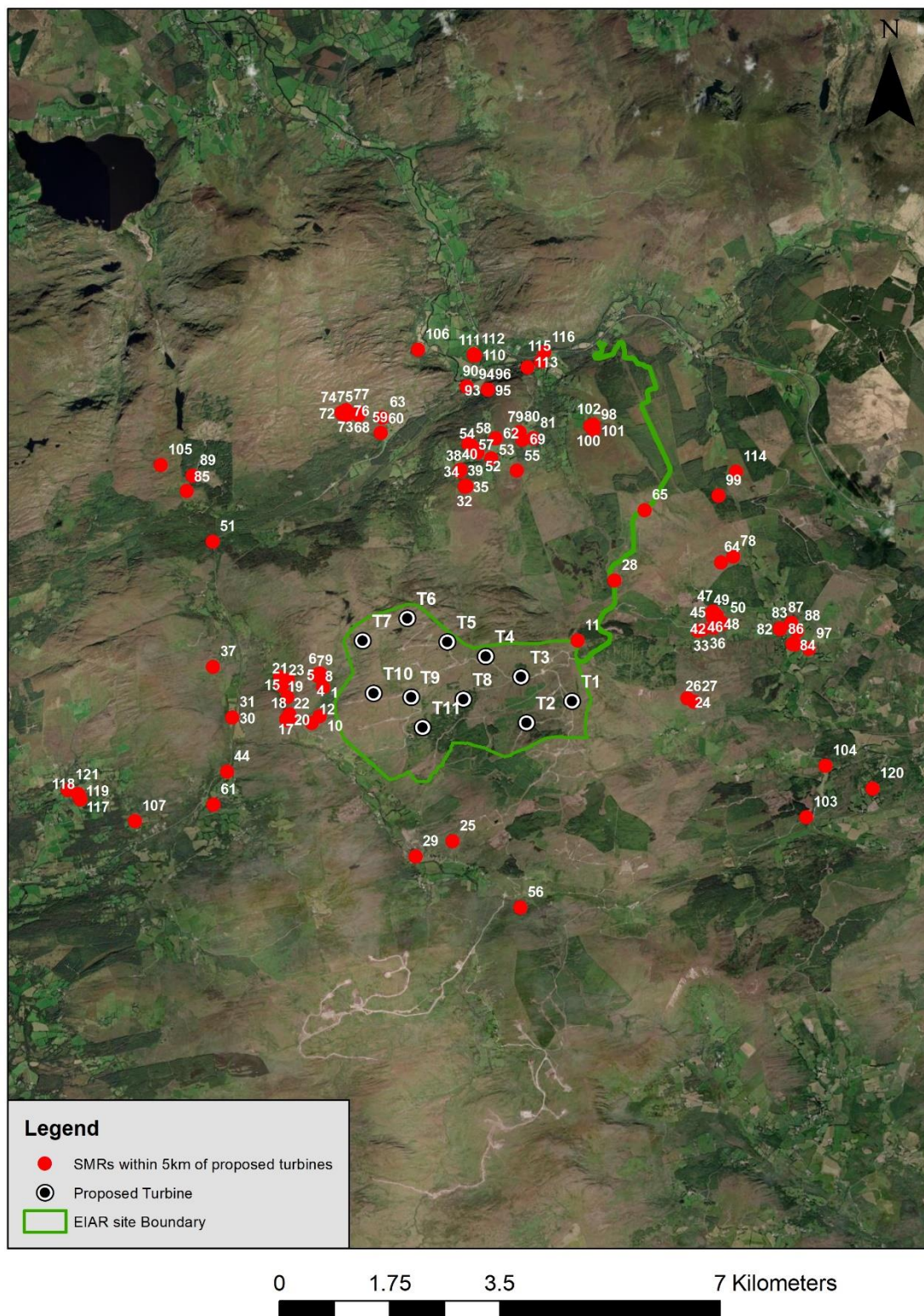


Figure 14-4: Recorded monuments within 5km of the nearest proposed turbine.

### 14.3.2.6 Kerry Archaeological Landscapes

#### 14.3.2.6.1 The Paps

The designated Archaeological Landscape (Site No. 13) (The Paps- Annaghbeg. Annaghmore / Doocarrig More / Gortacoreen/Gortderrig/Shrone More/ Shrone Beg / Gortnagane / Raheen /

Awnaskirtaun / Knocknabro / Knockagowan / Derrynafinnia / Derrymaclavlude / Killeen / Carrigaveema / Coolcurtoga) is located 4.3km to the north of the nearest proposed turbine T6. There are no instances where the Proposed Development encroaches into the designated landscape boundary, however. It is described in the Kerry County Development plan (2022-2028) as follows;

*‘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 hutsites, 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’.*

The Landscape boundary was overlaid onto the ZTV (as utilised in the LVIA chapter 12) and it shows that whilst some of the area within the landscape shows some visibility of turbines, the majority of areas to the north, and clusters of areas along the south, show no visibility in the direction of the existing (and therefore proposed) turbines. It should be noted that if the existing turbines are visible, the proposed will also be visible. The existing and proposed turbines are visible from the western and eastern summits. There are many areas with large clusters of monuments, particularly to the southwest, where there will be no visibility in the direction of the proposed turbines.

Given the visual setting of the Paps and the views from same, a photowire (VP25) was taken from the western summit and has shown that portions of all eleven proposed turbines will be visible from the Paps. As outlined in the LVIA assessment on Cultural Heritage receptors, there are open views of the proposed turbines from the western summit of the Paps (VP25). It should be noted, however, that this visibility will be limited to areas of high elevation such as the summit and that views of the Paps themselves will not be obstructed by the proposed turbines. Furthermore, the proposed turbines will be replacing those already existing turbines, that are already visible, and therefore will not result in any noticeable change to the wider landscape views from the Paps summit.



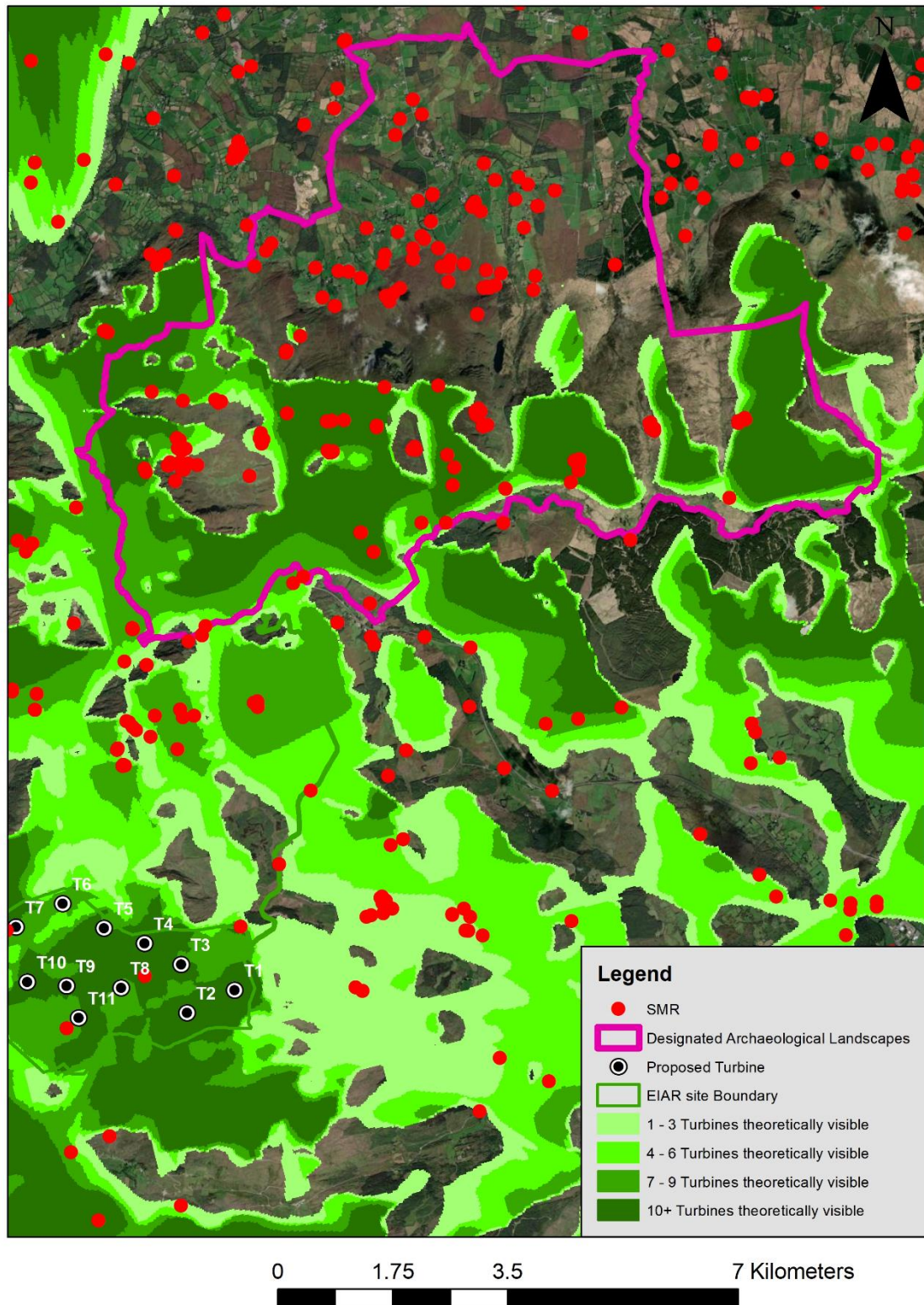


Figure 14.4: The Paps designated archaeological landscape and SMRs overlaid with the ZTV.

#### 14.3.2.6.2 Mangerton

A second designated landscape Mangerton / Cumeenduvassig Bausheen / Slaght / Knockeens (Site no 15) is located over 6km to the west of the nearest proposed turbine T7. This is described in the Kerry County Development plan as follows:

*‘Standing stones, hut sites, enclosures, cashels, ogham stone, field systems, fulachtaí fiadh, cairns and a radial stone cairn. Location on the southern facing slopes of Mangerton mountain of an extensive range of Bronze Age monuments with associated field systems and later monuments such as cashels, ringforts and enclosures’.*

The landscape boundary was again overlaid onto the ZTV which shows that areas where large clusters of monuments are located have no visibility in the direction of the proposed turbines. There are areas in the northeastern portion of the landscape which shows theoretical visibility of over 10 turbines.

A photowire (VP29) was taken from the southern slopes of Mangerton which contains numerous archaeological monuments and from which there is theoretical visibility of the proposed turbines. Similar to the Paps, the visibility of the proposed turbines from Mangerton archaeological landscape will generally be limited to higher elevations and will not obstruct views of the area of Mangerton landscape itself. Unlike the Paps the Mangerton landscape does not have a readily identifiable feature or landform such as the distinctive outline of the Paps summit and the cairns atop same. Furthermore, the proposed turbines will be replacing those already existing turbines, which are already visible, and therefore will not result in any noticeable change to the wider landscape views from the Mangerton area.



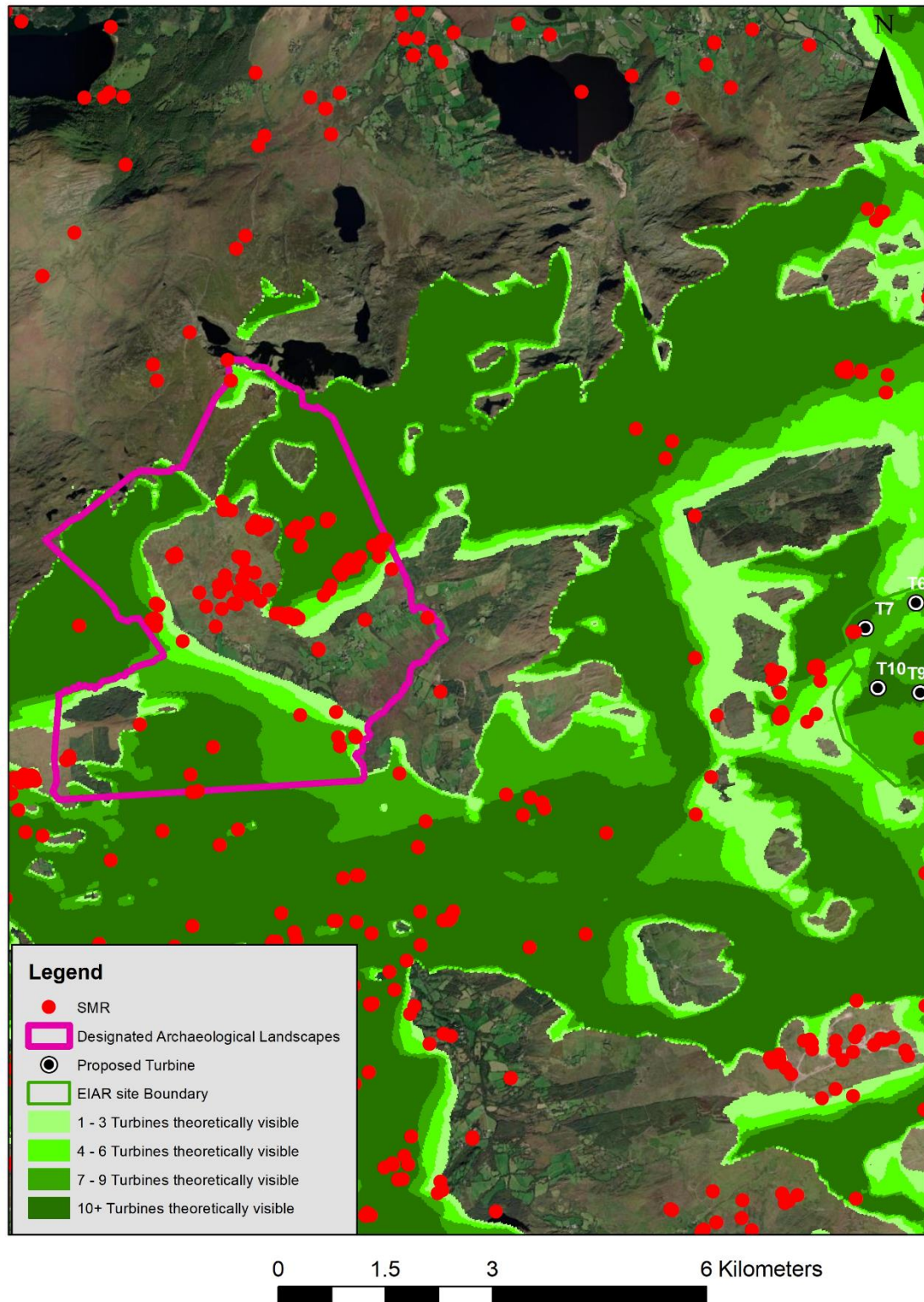


Figure 14-6: Mangerton designated archaeological landscape and SMRs overlaid with the ZTV.

In general, since the Proposed Development consists of the removal of 28 turbines and the construction of 11 (repowering) new turbines, potential visual impacts will reduce from the existing scenario.

Impacts and mitigation measures are presented in Section 14.4.



### 14.3.2.7 Excavations Database

The database of excavations carried out in Ireland ([www.excavations.ie](http://www.excavations.ie)) was consulted for any such licensed work which took place on or adjacent to the Proposed Development site.

#### **2008:615 - Inchincoosh and Lettercannon, Kerry**

County: Kerry Site name: Inchincoosh and Lettercannon

Sites and Monuments Record No.: N/A Licence number: 08E0437

Author: Miriam Carroll, Tobar Archaeological Services, Saleen, Midleton, Cork.

Site type: No archaeological significance

Period/Dating: —

ITM: E 507244m, N 576385m

Latitude, Longitude (decimal degrees): 51.931846, -9.348817

Monitoring of groundworks associated with the construction of two wind farms at Inchincoosh and Lettercannon, Co. Kerry, was undertaken over a period of four months. The groundworks largely consisted of the removal of peat deposits to facilitate the construction of access roads and turbine bases. No archaeological finds, features or deposits were uncovered during monitoring however a previously unrecorded possible hut site and possible collapsed megalithic tomb were noted in the vicinity of Turbine 8 at Lettercannon wind farm and were excluded from all development.

#### **2005:688 - INCHEE AND LETTERCANNON, Kerry**

County: Kerry Site name: INCHEE AND LETTERCANNON

Sites and Monuments Record No.: N/A Licence number: 05E0112

Author: Miriam Carroll, Tobar Archaeological Services, 15 Willowfields, Ladysbridge, Castlemartyr, Co. Cork.

Site type: No archaeological significance

Period/Dating: —

ITM: E 508970m, N 576061m

Latitude, Longitude (decimal degrees): 51.929219, -9.323646

Monitoring of groundworks associated with the construction of a fifteen-turbine wind farm was undertaken over several months in 2005. The site is located within the Derrynasaggart mountain range. The extraction of peat deposits from the site was monitored but did not reveal the presence of any archaeological finds or features.

#### **1997:235 - COOMACULLEN, Kerry**

County: Kerry Site name: COOMACULLEN

Sites and Monuments Record No.: N/A Licence number: 97E0184

Author: Michael Connolly, Kerry County Museum, Ashe Memorial Hall, Denny Street, Tralee, Co. Kerry.

Site type: Possible fulacht fiadh

Period/Dating: —

ITM: E 510483m, N 580116m

Latitude, Longitude (decimal degrees): 51.965898, -9.302697

This site was recorded as part of a site assessment, completed at the request of the National Monuments Service, prior to commencement of road realignment works on the N22 between Poulgorm Bridge and Derryreagh. Following the identification of the site as a possible fulacht fiadh, the National Monuments Service requested further investigation. This work was carried out on 19 and 21 May 1997.

The site is situated in the western corner of a small field which slopes gently down from a steep hill at the south toward the Clydagh River, 60m to the north. The land in the area is very marshy and floods during periods of heavy rain.

The site was bounded on its western and southern sides by a low field wall, which gave it a D-shape. It measured 12m east-west, 9.5m north-south and remained to a height of 0.47m above the surrounding ground on its northern side. The site had the appearance of a natural terrace on the hill but was in an area of potential for fulacht fiadh-type sites.

The excavation consisted of a single trench, 1m wide, across the site in a north-south direction, and confirmed that the site was a natural feature, a natural terrace formed from peat, with a maximum depth of 0.77m, which rested on a creamy, white, sterile boulder clay.

The site exhibits no evidence of archaeological strata. As such, the road realignment will not affect any known archaeology in this area.

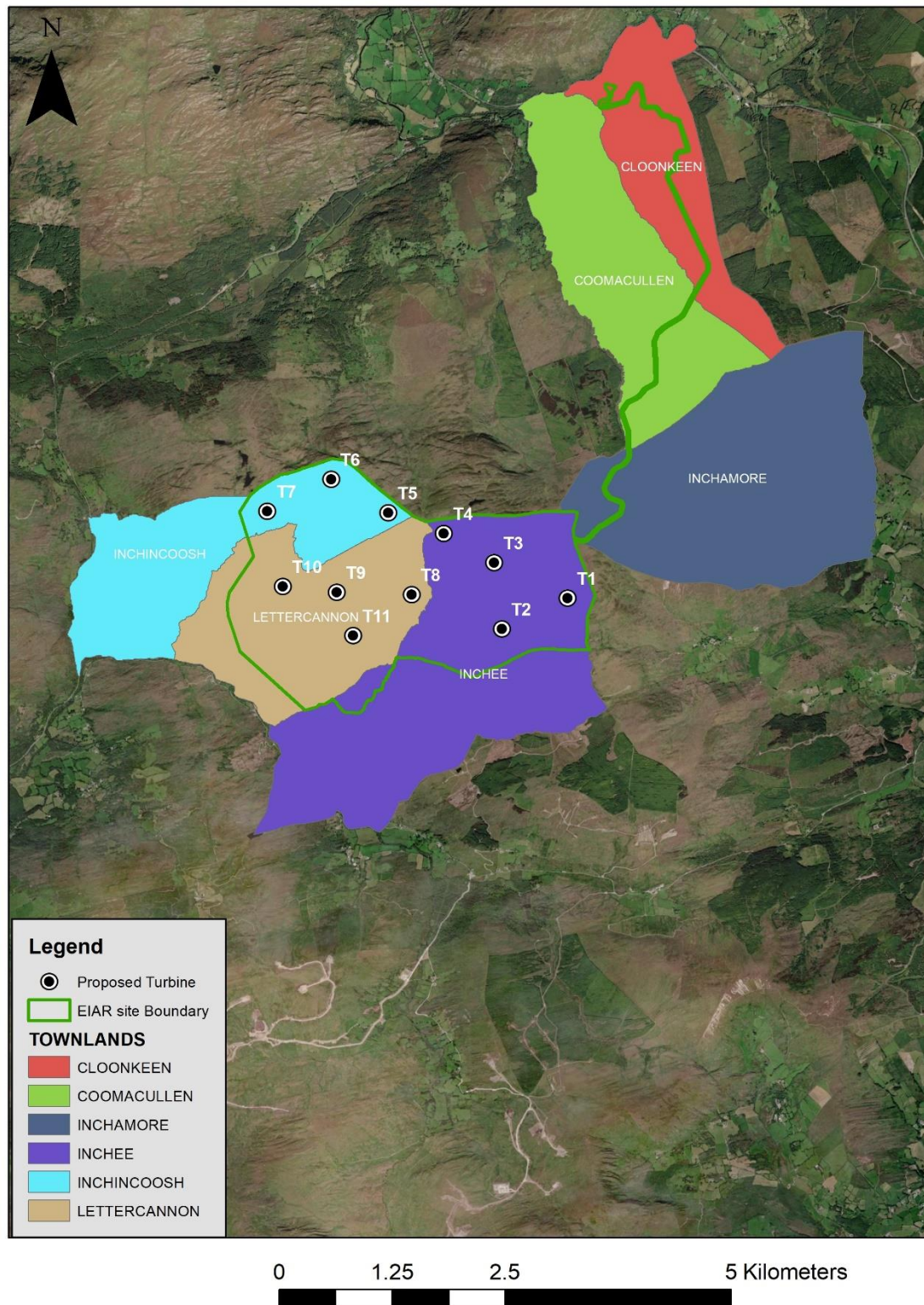


Figure 14-5: Townlands within the EIAR Site Boundary.

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

The topographical files of the National Museum of Ireland on [www.heritagemaps.ie](http://www.heritagemaps.ie) were consulted for archaeological finds from the townlands in the immediate vicinity of the EIAR Site Boundary.



Two finds were noted in the vicinity of the EIAR Site Boundary with the nearest being depicted on Figure 14-6 below. They consist of a Bronze Basin to the west and a Bronze Axehead to the east. This demonstrates, in general, the artefact bearing potential of peat and blanket bog and that such potential could extend into the Proposed Development site. This potential impact is dealt with by way of mitigation at the construction stage, however.



Figure 14-6: National museum find spots in relation to the EIAR site boundary.

### 14.3.3 Architectural and Cultural Heritage

A number of documentary and cartographic sources were utilised in order to ascertain the potential for the presence of architectural /cultural heritage features on or within the area of the Proposed Development. The RPS for County Kerry and Cork is available as a downloadable dataset. Cultural heritage includes items such as buildings, farmhouses, gates, bridges, piers, and stone field boundaries.

#### 14.3.3.1 Protected Structures

No Protected Structures subject to statutory protection are located within the EIAR Site Boundary or within close proximity to same. Four protected structures are located within 5km of the nearest proposed turbine and these are detailed in Table 14-6 and Figure 14-6 with the relevant distances to turbines. There are no structures within 2km of the nearest proposed turbine. When overlaid on the ZTV, the two structures to the north at Derreenacullig townland (Loo Bridge Hostel and Loo Railway Bridge) are located in areas where potentially 4 to 6 turbines may theoretically be seen (not assuming any existing vegetation, buildings that may in reality screen the structures from view). In reality, screening and topography effectively screen the structures which are located on private land.

Morleys Bridge (KY0476) is located on the periphery of an area on the ZTV which shows theoretical visibility of between 1 and 3 turbines, again not assuming any buildings, topography or natural vegetative screening. In reality no views are possible due to substantial rocky outcrops and intervening vegetation.

The National school (KY0475) is located in an area which has theoretical visibility of between 4 and 6 turbines. In reality, however, the screening on the east side of the public road will alleviate any potential visual effects on setting.

Impacts and mitigation measures are presented in Section 14.4.

Table 14-4: RPS and NIAH structures within 5km of the nearest proposed turbine.

| RPS NO.     | NIAH REG NO. | NAME                   | ORIGINAL USE                 | TD NAME         | ITM E  | ITM N  | TURB . ID | Distance to nearest turbine (m) |
|-------------|--------------|------------------------|------------------------------|-----------------|--------|--------|-----------|---------------------------------|
| RPS-KY-0475 | 21308501     | Morley's Bridge School | Former Detached School House | Inchincoosh     | 504758 | 575747 | T10       | 2421                            |
| RPS-KY-0476 | 21308502     | Morley's Bridge        | Bridge                       | Redtrench North | 504710 | 575311 | T10       | 2641                            |
| RPS-KY-0497 | 21307601     | Loo Bridge Hostel      | Former Railway Station       | Derreenacullig  | 508380 | 581399 | T6        | 3747                            |
| RPS-KY-0498 | 21307602     | Loo Railway Bridge     | Railway Bridge               | Derreenacullig  | 508411 | 581514 | T6        | 3866                            |



14.3.3.1.1 **RPS-KY-0475** **21308501**

Detached five-bay single-storey over battered raised platform schoolhouse, dated 1856, with three-bay single-storey gabled projecting porch to centre. Now ruinous. Pitched and hipped slate roofs with timber collar trusses and rendered chimneystack having dentilated band. Rendered rubble stone walls with plaque to porch. Tooled limestone sills to timber six-over-six pane sliding sash windows. Timber boarded door. Profiled ceiling and timber boarded doors to interior. Located high above roadway on plinth formed by coursed stone retaining wall battered at corners.



Plate 14-41: Morleys Bridge National school (image courtesy of NIAH).

14.3.3.1.2 **RPS-KY-0476** **21308502**

Double-arch rubble stone road bridge over river, built c. 1840, with rubble stone voussoirs. Rubble parapets with stone-on-edge coping.



Plate 14-42: Morleys bridge (image courtesy of NIAH).



14.3.3.1.3

**RPS-KY-0497 21307601**

Detached T-plan five-bay single- and two-storey former railway station, opened 1893, comprising single-bay two-storey central block, two-bay single-storey recessed flanking end bays and three-bay two-storey return to rear to south-east. Closed in 1960. Single-bay single-storey flat-roofed entrance bay added to accommodate use as youth hostel. Pitched and hipped slate roofs with clay ridge tiles, rendered chimneystack, overhanging eaves and cast-iron profiled gutter and downpipes. Painted roughcast rendered walls. Tripartite windows to west at ground and first floors with original sliding sash windows. Replacement timber windows to remaining openings. Render doorcase with cornice and blocking course, having replacement door. Retaining interior features. Remains of rubble stone-built platform built c. 1890, along west elevation. Signal, buffer and name-plate relocated to south side. Railway bridge to north.



Plate 14-43: Former Railway station (RPS-KY-0497 NIAH 21307601)

14.3.3.1.4

**RPS-KY-0498 21307602**

Triple-span iron lattice and box girder railway bridge over river, opened 1893, with rusticated limestone pylons and inscribed plaque. Closed in 1960. Now in use as road bridge.



Plate 14-44: Bridge RPS-KY-0498 21307602 (image courtesy of NIAH).

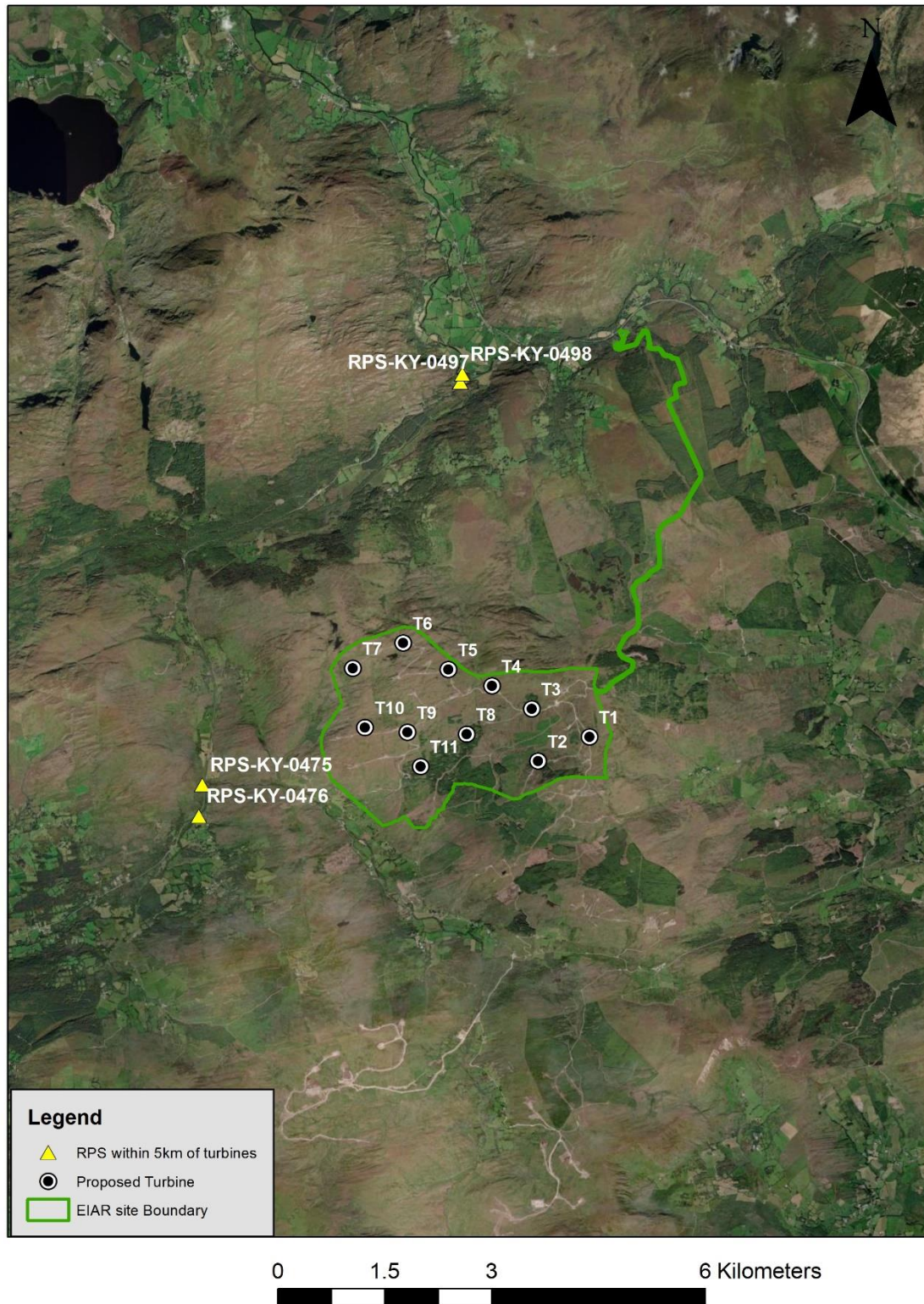


Figure 14-7: RPS structures within 5km of the nearest proposed turbine.

### 14.3.3.2 NIAH structures

Four NIAH structures are located within 5km of the nearest proposed turbine and are also protected structures. They are presented above in Section 14.3.3.1 and listed in Table 14-4.

Direct and indirect effects are addressed below in Section 14.4.

### 14.3.3.3 Cartographic Evidence

The available historic Ordnance Survey maps were consulted for any items of cultural heritage merit that may be located within the Proposed Development site.

#### 14.3.3.3.1 1<sup>st</sup> Edition OS maps

The Ordnance Survey came to Ireland in 1824 in order to carry-out a precise admeasurement of the country's 60,000 or so townlands as a preliminary to the larger task of reforming Ireland's local taxation system. The townland boundaries were demarcated by a Boundary Commission, and the Ordnance Survey had the task of measuring them. In addition to boundaries the maps are truly topographical in content. Drawn at the large scale of six inches-to-one-mile (1:10,560) it was important to mark all buildings, roads, streams, placenames, etc, that were required for valuation purposes. Ultimately the maps were used as a basis for the rateable valuation of land and buildings in what became known as Griffith's Valuation. Working from north to south, the survey began in Antrim and Derry in 1829 and was completed in Kerry in 1842. It was published as thirty-two county maps between 1832 and 1846, the number of sheets per county varied from 153 for County Cork to 28 for Dublin, each of the 1,994 sheets in the series depicting an area 21,000 by 32,000 feet on the ground. Each county was projected on a different central meridian and so the maps of adjacent counties do not fit neatly together at the edges. Map content stops at the county lines.

#### The First Edition

The early Ordnance Survey maps are an unrivalled source for the period immediately before the Great Irish Famine (1847-50) when the population was at the highest level ever recorded in Ireland.

The first edition map (1829-41) for the area of the Proposed Development shows a largely open featureless landscape.

#### 6 inch Cassini

The Cassini 6 inch map shows a similar scenario with the site being largely open and featureless. No additional information was gleaned from the consultation of the historic mapping.



#### 14.3.3.4 Townlands and administrative boundaries

Townlands and administrative boundaries may indicate the presence of archaeological features within a development site. Administrative counties are subdivisions of pre-established counties which were formed for administrative purposes in the nineteenth and twentieth centuries. Baronies are administrative units larger than civil parishes and originally established as the primary subdivision of counties by the British administration in Ireland. Irish baronies which were formed at the time of the Norman conquest were usually named either after Irish territories, or from places which had been of importance in pre-Norman times. Irish baronies came into existence at different periods. The division of Ireland into counties and baronies was a process which continued down to the reign of James I. The original baronies in Ireland were the domains of the Norman barons; in the final stage of development they were divisions of counties created merely for greater convenience of administration. The word barony is of feudal origin, and was applied to a tenure of a baron, that is, of one who held his land by military service, either directly from the king, or from a superior feudal lord who exercised royal privileges. The origin of the Irish barony (a division of land corresponding to the English hundred) is to be found in the grants of lands which were made to the barons of Leinster and the barons of Meath (Liam Price, 'Ráith Oinn', Éigse VII, lch. 186-7). Civil parishes are administrative units larger than townlands and based on medieval ecclesiastical parishes. Civil parishes, modern Catholic parishes and Church of Ireland parishes may differ in extent and in nomenclature. Counties are administrative units larger than baronies and originally established by the British administration in Ireland between the twelfth and the seventeenth centuries. Some of these were subsequently subdivided into smaller administrative county units.

Townlands are the smallest land units which were determined and established in the Irish administrative system in the first half of the nineteenth century. Many of the townlands were in existence prior to that. Townland names are a valuable source of information, not only on the topography, land ownership and land use within the landscape, but also on its history, archaeological monuments and folklore. Logainm.ie was utilised to ascertain the origin of the townland names within the Proposed Development site.

Inchincoosh – Inse an Chuais – The Island of the Meadow.

Lettercannon - Leitir Ceannann – Hillside

Inchee - Na hInsi – The River Meadows

Inchamore - An Inse Mhór – Great River Meadow. **(No works proposed)**

Coomacullen - Com an Chuilinn – no translation on logainm.ie

Cloonkeen - Cluain Chaoin – Pleasant Pasturelands

#### 14.3.4 Grid Connection Route and Substation

The existing overhead line grid connection will not be altered and it is intended to utilise the existing onsite Coomagearahy 110kV electrical substation in order to connect the Proposed Development to the national grid.

#### 14.3.5 The Proposed Haul Route

The Proposed Development site will be accessed via an existing entrance from the N22 at Clonkeen, using existing site roads, historically constructed as forestry roads and later facilitating the Existing Kilgarvan Wind Farm. The main access road is c. 7.9km in length and extends from the N22 to the entrance in the north-east corner of the Existing Kilgarvan Wind Farm. There are no upgrades to the

site entrance proposed, however some upgrades to the access road are proposed as part of this application.

The delivery of all turbine components and construction materials to the site will be via the site entrance described above. From here, the vehicles will use the internal site roads to access the proposed infrastructure locations within the site. An outline Traffic Management Plan is included in the CEMP in Appendix 4-3 of this EIAR.

## 14.4 Likely Effects and Associated Mitigation Measures

### 14.4.1 Do-Nothing Scenario

If the Proposed Development were not to proceed, the Existing Kilgarvan Wind Farm turbines continue to operate and would eventually be decommissioned as per their existing permissions.

Upon decommissioning of the Existing Kilgarvan Wind Farm, all turbines and meteorological masts would be removed from site. The existing site roads and areas of hardstanding would be covered over with soil and left to reseed. The existing onsite 110kV Coomagearlahy substation compound would be left in place, as it is under the ownership of the ESB. If the Proposed Development were not to proceed, the opportunity to generate renewable energy and electrical supply to the national grid would be lost, as would the opportunity to further contribute to meeting Government and EU targets for the production and consumption of electricity from renewable resources and the reduction of greenhouse gas emissions.

Further assessment of the decommissioning stage relative to cultural heritage impacts is addressed below.

### 14.4.2 Construction Phase Impacts

In order to facilitate the construction of the Proposed Development, the existing 28 no. turbines comprising the Existing Kilgarvan Wind Farm will be removed from the site. This will occur during the construction phase for the Proposed Development. Areas of hardstanding which will not be reused to facilitate the Proposed Development will be covered over with soil and left to re-seed. Electrical cabling will be either left in-situ, cut and tied so as not to disturb the subsoil or removed from its ducting. Roads on site will be reused and upgraded where they are required for the Proposed Development. The removal of the existing turbines is therefore dealt with under the construction phase.

#### 14.4.2.1 Construction Phase Potential Impacts (Indirect)

Indirect effects, in terms of archaeology, architectural and cultural heritage are considered to be those effects which happen away from 'the site'. This includes impacts on visual setting of any cultural heritage assets in the wider landscape. Since these effects are only possible once development is operational, they are considered operational effects and are therefore discussed in Section 14.4.3 below. No indirect effects were identified which would occur at the construction stage.

#### 14.4.2.2 Construction Phase Potential Impacts (Direct)

Direct impact refers to a 'physical impact' on a monument or site. The construction phase of the development consists largely of earthmoving activities such as peat and topsoil removal. The potential impacts on the known and potential archaeological, architectural and cultural heritage of the area are outlined below with the mitigation measures that will be implemented in full. The impacts are described according to each element of the Existing Environment (National Monuments, SMRs, Sub-surface

archaeology, etc). Where any potential direct impacts do occur, they are negated with mitigation measures that will be implemented in full such as exclusions zones (buffer zones), testing, monitoring, etc.

#### 14.4.2.3 **UNESCO World Heritage Sites (Direct Effects)**

Since no UNESCO sites are located within the EIAR Site Boundary no direct effects will occur.

#### 14.4.2.4 **National Monuments within the EIAR Site Boundary**

No National Monuments are located on or in close proximity to the Proposed Development site therefore no direct impacts to such monuments will occur. National Monuments in the wider landscape setting are assessed for visual effect and this is described in 14.4.3 below.

#### 14.4.2.5 **Recorded Monuments within the EIAR Site Boundary**

Six monuments listed in the SMR are located within the EIAR Site Boundary.

Visual effects on SMRs in the wider landscape setting of 5km from the nearest proposed turbine are assessed separately in Section 14.4.3.4 below.

##### 14.4.2.5.1 **KE085-050, KE085-051 and KE085-052 Hut sites at Inchincoosh**

##### **Pre-Mitigation Impact**

These three hut sites are described above in Section 14.3.2.3 above. They are located 180m to the west of the existing turbine and will measure 150m from the proposed Turbine No. 7 (Figure 14-10). The majority of ground works will take place within an area already devoid of topsoil so overall groundworks will be minimal. They are considered an adequate distance from the proposed works so as not to require fencing off. Accidental damage by machinery may occur due to the subtle nature of the monuments although given the distance from the Turbine No. 7 area, this is unlikely. In this regard the potential effects are considered to be slight. A number of measures can be implemented to avoid any such negative effects and these are detailed below.

##### **Proposed Mitigation Measures**

- All archaeological sites within the EIAR Site Boundary will be highlighted by erecting Keep-out signage prior to construction and a map of all archaeological features will be available to all personnel during construction by way of appearance in the Construction and Environmental and Management Plan.
- An archaeologist (under licence) will be present on-site during construction works to monitor all ground works and to ensure that no accidental damage occurs to the identified monuments detailed below. If archaeological finds, features or deposits are uncovered during archaeological monitoring, the developer will be prepared to provide resources for the resolution of such features whether by preservation by record (excavation) or preservation in situ (avoidance). Once the project is completed, a report on the results of the monitoring will be compiled and submitted to the local authorities and the National Monuments Service. The National Monuments Service will be informed of such findings to discuss how best to proceed.



### Residual Impact

The mitigation measures above serve to protect and ensure that no direct effects occur during construction. Once these mitigation measures are implemented the residual effects will be Imperceptible.

### Significance of Impacts

The construction stage will have no significant effects on the recorded monuments.



Figure 14-8 Recorded monuments adjacent to existing and proposed Turbine No.7.

#### 14.4.2.5.2 **KE085-053001 Megalithic tomb – unclassified and KE085-053002 Hut site at Lettercannon**

##### Pre-mitigation Impact

These monuments are described in Section 14.3.1.15.1 and 14.3.2.3 above. The tomb and hut site are located in an area adjacent to an existing turbine and road (Figure 14-11). This existing turbine will be removed and these monuments will no longer be located adjacent to any proposed turbines. The nearest proposed turbine will be located 237m to the northeast (T11). The removal of the existing turbine therefore has the potential to have a negative impact on the archaeological monuments and therefore a number of mitigation measures are required. The monuments are located 18m to the south-west of the existing road edge and 33m to the existing turbine. Removal of the existing turbines without mitigation may have potential significant, negative and permanent effects on the monuments.

##### Proposed Mitigation Measures

- The monuments will be fenced off prior to the commencement of construction with 'Keep Out' signage erected. The fencing will be inspected by the appointed archaeologist.
- The fencing should be erected 15m from the monuments outer extent which will act as a protective buffer zone within which no machinery will be permitted to access.
- A map of all archaeological features will be available to all personnel during construction by way of appearance in the Construction and Environmental and Management Plan.
- An archaeologist (under licence) will be present on site during construction works to monitor all ground works and to ensure that no accidental damage occurs to the identified monuments detailed below. If archaeological finds, features or deposits are uncovered during archaeological monitoring, the developer will be prepared to provide resources for the resolution of such features whether by preservation by record (excavation) or preservation in situ (avoidance). Once the project is completed, a report on the results of the monitoring will be compiled and submitted to the local authorities and the National Monuments Service. The National Monuments Service will be informed of such findings to discuss how best to proceed.

##### Residual Impact

The mitigation measures above serve to protect and ensure that no direct effects occur during construction. Once these mitigation measures are implemented the residual effects will be Imperceptible.

##### Significance of Impacts

The construction stage will have no significant effects on the recorded monuments after implementation of mitigation.



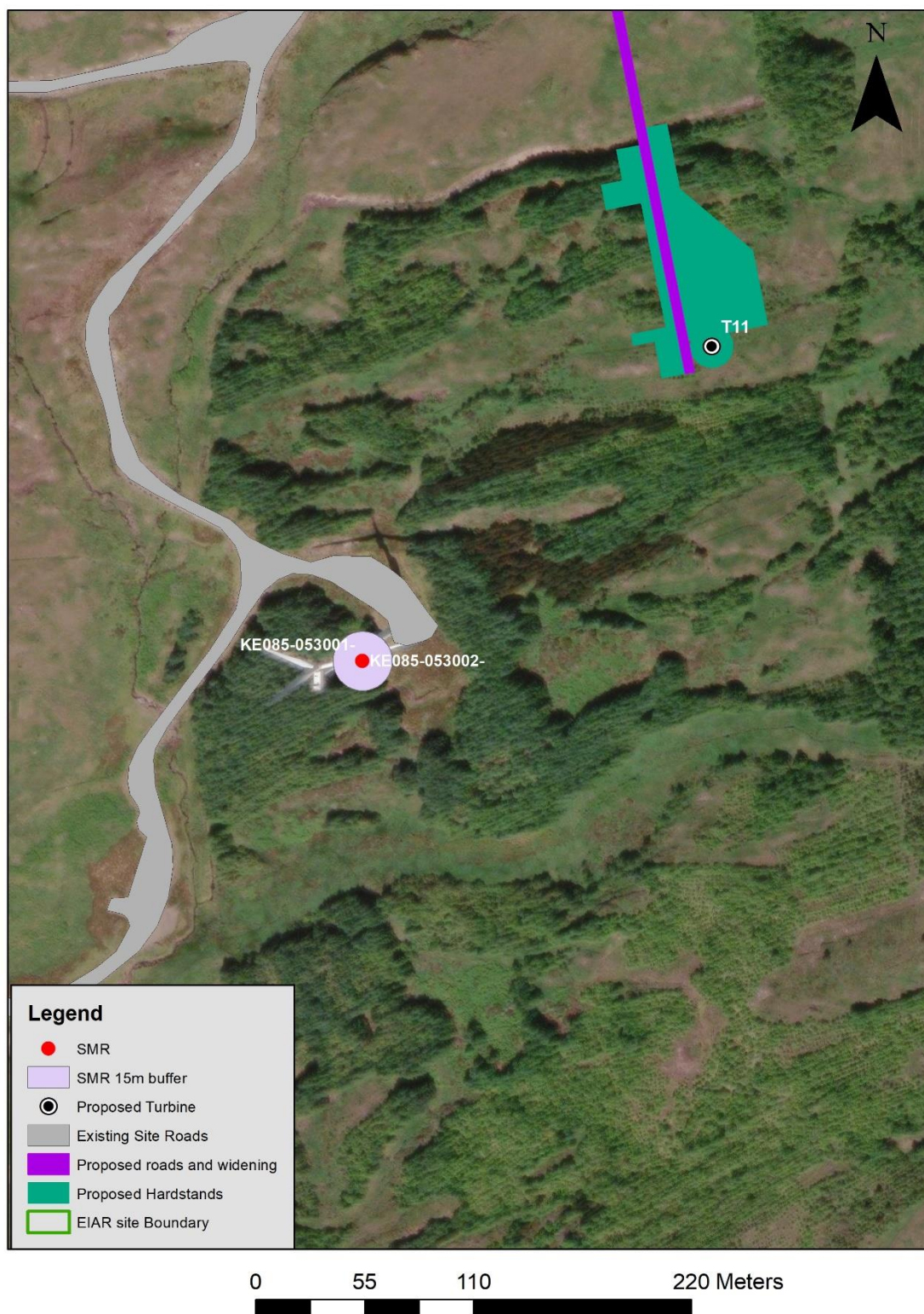


Figure 14-9: Buffer around KE085-053001 Megalithic tomb – unclassified and KE085-053002 Hut site at Lettercannon.

#### 14.4.2.5.3

### KE086-012 Building at Inchee

#### Pre-Mitigation Impact

This monument is described in Section 14.3.1.15 above in the context of the Existing Kilgarvan Wind Farm. It is located to the north of the existing road and 82m east of the existing turbine due to be removed. It is located 406m from the nearest proposed turbine to the west (T8). New construction activities in the form of road widening, upgrade works and removal of turbines, may negatively impact on the structure without the necessary mitigation measures being implemented. The impacts without mitigation could be negative, permanent and significant.

#### Proposed Mitigation Measures

- The monument will be fenced off prior to the commencement of construction with 'Keep Out' signage erected. The fencing will be inspected by the appointed archaeologist.
- The fencing should be erected 15m from the monuments outer extent which will act as a protective buffer zone within which no machinery will be permitted to access.
- A map of all archaeological features will be available to all personnel during construction by way of appearance in the Construction and Environmental and Management Plan.
- An archaeologist (under licence) will be present on-site during construction works to monitor all ground works and to ensure that no accidental damage occurs to the identified monuments detailed below. If archaeological finds, features or deposits are uncovered during archaeological monitoring, the developer will be prepared to provide resources for the resolution of such features whether by preservation by record (excavation) or preservation in situ (avoidance). Once the project is completed, a report on the results of the monitoring will be compiled and submitted to the local authorities and the National Monuments Service. The National Monuments Service will be informed of such findings to discuss how best to proceed.

#### Residual Impact

The mitigation measures above serve to protect and ensure that no direct effects occur during construction. Once these mitigation measures are implemented the residual effects will be Imperceptible.

#### Significance of Impacts

The construction stage will have no significant effects on the recorded monuments after implementation of mitigation.





Figure 14-10: Recorded monument KE086-012— showing 15m buffer around same.

#### 14.4.2.6 Monuments within 5km of the nearest proposed turbines

There will be no direct construction stage effects on any monuments within 5km of the proposed turbines since they are located at a remove from the Proposed Development. Potential impacts on setting are addressed in Section 14.4.3 below.



#### 14.4.2.7 Kerry Archaeological Landscapes

No direct construction stage effects will occur to any designated archaeological landscapes. Potential impacts on setting are addressed in Section 14.4.3 below.

#### 14.4.2.8 Newly Recorded Archaeological Sites

##### Pre-mitigation Impact

Three new archaeological / cultural heritage features (CH1-3) were noted within the existing Lettercannon section of the Proposed Development. They are located adjacent to existing roads which were built as part of the Lettercannon Wind Farm. The latter roads will remain in situ with the nearest existing turbines removed. The removal of turbines has the potential to have a negative direct impact on the newly recorded sites due to the proximity of the turbines being removed. This potential effect can effectively be mitigated in order to remove the impact.

##### Proposed Mitigation Measures

- The monuments will be fenced off prior to the commencement of construction with 'Keep Out' signage erected. The fencing will be inspected by the appointed archaeologist.
- The fencing should be erected 15m from the monuments outer extent which will act as a protective buffer zone within which no machinery will be permitted to access.
- A map of all archaeological features will be available to all personnel during construction by way of appearance in the Construction and Environmental and Management Plan.
- An archaeologist (under licence) will be present on-site during construction works to monitor all ground works and to ensure that no accidental damage occurs to the identified monuments detailed below. Once the project is completed, a report on the results of the monitoring will be compiled and submitted to the local authorities and the National Monuments Service. The National Monuments Service will be informed of such findings to discuss how best to proceed.

##### Residual Impact

The mitigation measures above serve to protect and ensure that no direct effects occur during construction. Once these mitigation measures are implemented the residual effects will be Imperceptible.

##### Significance of Impacts

The construction stage will have no significant effects on the recorded monuments after implementation of mitigation.



Figure 14-11: Newly recorded CH features (1-3) showing 15m buffers around same.

#### 14.4.2.9 Sub-surface Archaeological Potential

The Proposed Development is making use of as much as the existing infrastructure as possible, i.e. hardstanding areas, site roads, substation facilities. Where infrastructure is unable to be reused, it will be removed or rehabilitated. The Proposed Development has been designed in order to make use, as much as possible, of existing site roads which were permitted and build as part of the Existing Kilgarvan Wind

Farm. The Proposed Development includes for the upgrade of the existing road network, and the provision of some new short stretches of access road. This is described in Section 4.3.4 in Chapter 4.

Overall, the remaining groundworks are being kept to a minimum but the potential remains for the development area to contain as yet unrecorded sub-surface sites and artefacts especially given the presence of other archaeological indicators such as hut sites and a megalithic. The presence of the latter indicates that the area was utilised for both human settlement and burial. It is possible that sub-surface features may be uncovered either within the peat/topsoil and/or at the level of the underlying natural subsoil. The excavation of peat/topsoil during all elements of the Proposed Development has the potential to impact on any new sites, if present. Mitigation measures will include construction stage monitoring of all elements of the Proposed Development including turbine bases, hardstands, roads, construction compounds, borrow pit, drainage and any other area of groundworks.

### Pre-Mitigation Impact

Should new sites, features or artefacts be present within the site (currently not visible on the surface) the impact is likely to be significant negative and permanent (i.e. the excavation by machinery would permanently remove the sites resulting in a significant negative impact).

### Proposed Mitigation Measures

- Archaeological monitoring of ground works during construction. This will include all excavation works within the EIAR Site Boundary, as well as any topsoil removal along the haul route. If archaeological finds, features or deposits are uncovered during archaeological monitoring, the developer will be prepared to provide resources for the resolution of such features whether by preservation by record (excavation) or preservation in situ (avoidance). Once the project is completed, a report on the results of the monitoring will be compiled and submitted to the local authorities and the National Monuments Service. The National Monuments Service will be informed of such findings to discuss how best to proceed.

### Residual Impact

The sites/features, if detected, during monitoring will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full record made of same. In this regard, the potential impact after the mitigation measures is likely to be slight.

### Significance of Impacts

The construction stage will have no significant effects on unrecorded potential sub-surface sites. The impacts, after the implementation of mitigation, is likely to be slight.

## 14.4.2.10 Protected Structures within the EIAR Site Boundary

No Protected Structures are located within the EIAR Site Boundary. In this regard no direct impacts to this resource were identified. Any protected structures in the wider landscape setting of 5km from the nearest turbine are considered separately below and are assessed in terms of any potential visual impact.

## 14.4.2.11 NIAH Structures within the EIAR Site Boundary

No NIAH sites are located within the EIAR Site Boundary. In this regard no direct impacts to this resource were identified. Any protected structures in the wider landscape setting of 5km from the



nearest turbine are considered separately below and are assessed in terms of any potential visual impact.

### 14.4.3 Operational Phase Potential Impacts (Indirect)

Indirect impacts are where a feature or site of archaeological, architectural heritage merit or their setting is located in close proximity to a Proposed Development. Indirect impacts here are mainly concerned with impacts on setting of cultural heritage sites.

Impacts on settings of sites may arise when a development is proposed immediately adjacent to a recorded monument or cluster of monuments. While the Proposed Development may not physically impact on a site, it may alter the setting of a monument or group of monuments. There is no standardised industry-wide approach for assessing the degree of impact to the setting of a monument. For purposes of assessing visual impact on setting, the uniqueness of the monuments, the potential interrelationships of monuments, the inter-visibility of monuments, visual dominance and whether a setting is altered or unaltered can be used to assess impact. The nature and dominance of the Proposed Development is also taken into consideration and the topography within which the development is located. The assessment of impacts on visual setting was undertaken using both the Zone of Theoretical Visibility (ZTV) map in the Landscape and Visual Impact Assessment (LVIA), as presented in Chapter 13 of this EIAR, and also photomontage / wireline technology from specific cultural heritage assets. The ZTV is a bare-ground model which does not take screening vegetation into account.

#### 14.4.3.1 UNESCO World Heritage Sites (Direct Effects)

No UNESCO sites or those on a tentative list are located within the 20km study area and therefore no effects on setting will occur.

#### 14.4.3.2 National Monuments within the EIAR Site Boundary

No National Monuments are located within the EIAR Site Boundary or within 10km of the nearest proposed turbine. No impacts on setting will occur to this resource within the 10km study area.

#### 14.4.3.3 Recorded Monuments within the EIAR Site Boundary

Six monuments listed in the SMR are located within the EIAR Site Boundary. Potential visual effects are discussed below, however, it should be noted that the Proposed Development will result in the reduction of the number of turbines in the surrounding area from 28 to 11 thereby reducing overall visual effects.

##### 14.4.3.3.1 **KE085-050, KE085-051 and KE085-052 Hut sites at Inchincoosh**

##### Pre-Mitigation Impact

These low-lying hut sites are described in Section 14.3.2.3 above. They are located 180m to the west of the existing turbine and will measure 150m from the proposed Turbine No. 7 therefore no significant changes are being proposed. Overall, the number of turbines will be reduced from 28 to 11, therefore the overall visual effects will be reduced. The ZTV model shows that the huts sites are located in an area where all of the proposed turbines will theoretically be visible. Impacts on setting are considered to be Slight.

### Proposed mitigation measures

It is not possible to mitigate the effect of the turbines on the visual setting of the structures. Therefore, no mitigation measures are being proposed.

### Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts (Slight).

### Significance of Effects

The Proposed Development will have no significant effect on the setting of the structures. The significance of effects will be negative, Slight but reversible.

#### 14.4.3.3.2 **KE085-053001 Megalithic tomb – unclassified and KE085-053002 Hut site at Lettercannon**

### Pre-mitigation Impact

These monuments are described in Section 14.3.1.15.1 and 14.3.2.3 above. The tomb and hut site are located in the vicinity of an existing turbine and road as well as being surrounded by conifers. This turbine will be removed and therefore no longer located adjacent to any monuments. The nearest proposed turbine will be located 237m to the northeast (T11). The monuments are located in an area where the ZTV shows theoretical visibility of 7-9 turbines (not assuming any trees or vegetation) which in reality screen the monuments from views in many directions. The reduction in the overall number of turbines from 28 to 11 is such that the overall effects on setting will also reduce. As it stands, as a result of the Proposed Development (in particular the proposed turbines), the potential effects on setting are considered to be Slight.

### Proposed mitigation measures

It is not possible to mitigate the effect of the turbines on the visual setting of the monuments. Therefore, no mitigation measures are being proposed.

### Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts (Slight).

### Significance of Effects

The Proposed Development will have no significant effect on the setting of the structures. The significance of effects will be negative, Slight but reversible.

#### 14.4.3.3.3 **KE086-012 Building at Inchee**

### Pre-Mitigation Impact

This monument is described in Section 14.3.1.15 above in the context of the Existing Kilgarvan Wind Farm. It is located to the north of the existing road and 82m east of the existing turbine due to be removed. It is located 406m from the nearest proposed turbine to the west (T8). The building is located in an area which the ZTV shows theoretical visibility of all proposed turbines. The effects on setting as

a result of the proposed turbines is considered to be slight. Overall, however, the reduction in the numbers of turbines from 28 to 11 and the removal of the existing turbine (T7) which is currently adjacent to the monument, is such that effects will be reduced.

### Proposed Mitigation Measures

It is not possible to mitigate the effect of the turbines on the visual setting of the structure therefore no mitigation measures are proposed.

### Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts (Slight).

### Significance of Effects

The Proposed Development will have no significant effect on the setting of the structures. The significance of effects will be negative, Slight but reversible.

## 14.4.3.4 Monuments within 5km of the nearest proposed turbines

### Pre-Mitigation Impact

Both the distance to the nearest turbine and the number of turbines visible from each asset are used to arrive a level of potential effect on setting (Table 14-7). Potential effects on setting as detailed in Table 14-8 below are based on the worst-case scenario in that natural screening, boundaries, buildings and vegetation are not taken into account in the ZTV model. The monuments within 5km of the proposed turbines are located at varying distances from the nearest proposed turbines but also, due to topography, have varying levels of visibility (as determined from the ZTV). The least significant effect would potentially be from monuments located between 4-5km with the fewest number of turbines theoretically visible (i.e. 1-3). Conversely, the most significant effect would be where monuments are located 0-1km from the nearest turbine and where potentially 10+ turbine could be seen. The results below show the potential significance of effects on monuments within 5km. In reality, however, the effect will be less severe since the ZTV model does not take natural screening and buildings into consideration which will alleviate if not remove the impact on setting altogether. Furthermore, many of these monuments may not be readily discernible in the landscape which further ameliorates effects on setting.

Table 14-5: Significance of Effects according to distance to nearest turbine and number of turbines visible.

| No of Turbines Visible (ZTV) | 1 -3 (1)              | 4 - 6 (2)     | 7 -9 (3)         | 10+ (4)              |                                   |                           |
|------------------------------|-----------------------|---------------|------------------|----------------------|-----------------------------------|---------------------------|
| Distance of asset to turbine |                       |               |                  |                      |                                   |                           |
| 4-5km (1)                    | 1                     | 2             | 3                | 4                    |                                   |                           |
| 3 -4km (2)                   | 2                     | 4             | 6                | 8                    |                                   |                           |
| 2-3km (3)                    | 3                     | 6             | 9                | 12                   |                                   |                           |
| 1- 2km (4)                   | 4                     | 8             | 12               | 16                   |                                   |                           |
| 0 -1km (5)                   | 5                     | 10            | 15               | 20                   |                                   |                           |
|                              |                       |               |                  |                      |                                   |                           |
|                              |                       |               |                  |                      |                                   |                           |
| Imperceptible (0)            | Not Significant (1-5) | Slight (6-10) | Moderate (11-15) | Significant (16-20+) | Very Significant (does not occur) | Profound (does not occur) |



Table 14-6 - Potential Effects on setting based on distance of monument to turbines and number of turbines theoretically visible (from ZTV).

| Map ID | SMR NO.       | Class                 | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|-----------------------|--------------------------|--|----------------|---|-----------------------------|
| 1      | KE085-041007- | Hut site              | T10                      | 0-1km                                  | 4-6 turbines   | 10  | Slight                      |
| 2      | KE085-041004- | Enclosure             | T7                       | 0-1km                                  | 7-9 turbines   | 15  | Moderate                    |
| 3      | KE085-041009- | Field boundary        | T7                       | 0-1km                                  | 7-9 turbines   | 15  | Moderate                    |
| 4      | KE085-041005- | Hut site              | T7                       | 0-1km                                  | 7-9 turbines   | 15  | Moderate                    |
| 5      | KE085-041006- | Hut site              | T10                      | 0-1km                                  | 7-9 turbines   | 15  | Moderate                    |
| 6      | KE085-041001- | Hut site              | T7                       | 0-1km                                  | 10+ turbines   | 20  | Significant                 |
| 7      | KE085-041003- | Field boundary        | T7                       | 0-1km                                  | 7-9 turbines   | 15  | Moderate                    |
| 8      | KE085-041002- | Hut site              | T7                       | 0-1km                                  | 10+ turbines   | 20  | Significant                 |
| 9      | KE085-041008- | Hut site              | T7                       | 0-1km                                  | 10+ turbines   | 20  | Significant                 |
| 10     | KE085-023—    | Enclosure             | T10                      | 0-1km                                  | 1-3 turbines   | 5   | Not Significant             |
| 11     | KE086-009—    | Standing stone - pair | T1                       | 0-1km                                  | 10+ turbines   | 16  | Significant                 |
| 12     | KE085-023001- | Enclosure             | T10                      | 1-2km                                  | 1-3 turbines   | 4   | Not Significant             |
| 13     | KE085-039005- | Hut site              | T7                       | 1-2km                                  | 0 turbines     | 0   | None                        |
| 14     | KE085-039002- | Hut site              | T7                       | 1-2km                                  | 0 turbines     | 0   | None                        |
| 15     | KE085-040—    | Hut site              | T10                      | 1-2km                                  | 1-3 turbines   | 4   | Not Significant             |

| Map ID | SMR NO.       | Class                    | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|--------------------------|--------------------------|--|----------------|---|-----------------------------|
| 16     | KE085-022003- | Hut site                 | T10                      | 1-2km                                  | 7-9 turbines   | 12  | Moderate                    |
| 17     | KE085-022004- | Enclosure                | T10                      | 1-2km                                  | 7-9 turbines   | 12  | Moderate                    |
| 18     | KE085-022—    | Enclosure                | T10                      | 1-2km                                  | 7-9 turbines   | 12  | Moderate                    |
| 19     | KE085-039001- | Enclosure                | T7                       | 1-2km                                  | 0 turbines     | 0   | None                        |
| 20     | KE085-022001- | Hut site                 | T10                      | 1-2km                                  | 7-9 turbines   | 12  | Moderate                    |
| 21     | KE085-039003- | Hut site                 | T7                       | 1-2km                                  | 0 turbines     | 0   | None                        |
| 22     | KE085-022002- | Hut site                 | T10                      | 1-2km                                  | 7-9 turbines   | 12  | Moderate                    |
| 23     | KE085-039004- | Enclosure                | T10                      | 1-2km                                  | 0 turbines     | 0   | None                        |
| 24     | CO057-014—    | Hut site                 | T1                       | 1-2km                                  | 1-3 turbines   | 4   | Not Significant             |
| 25     | KE086-003—    | Building                 | T11                      | 1-2km                                  | 0 turbines     | 0   | None                        |
| 26     | CO057-013002- | Hut site                 | T1                       | 1-2km                                  | 1-3 turbines   | 4   | Not Significant             |
| 27     | CO057-013001- | Hut site                 | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 28     | KE086-010—    | Standing stone           | T1                       | 2-3km                                  | 0 turbines     | 0   | None                        |
| 29     | KE085-045—    | Bridge                   | T11                      | 2-3km                                  | 7-9 turbines   | 9   | Slight                      |
| 30     | KE085-008—    | Enclosure                | T10                      | 2-3km                                  | 0 turbines     | 0   | None                        |
| 31     | KE085-008001- | Children's burial ground | T10                      | 2-3km                                  | 0 turbines     | 0   | None                        |

| Map ID | SMR NO.       | Class                      | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|----------------------------|--------------------------|--|----------------|---|-----------------------------|
| 32     | KE086-004002- | Standing stone             | T6                       | 2-3km                                  | 7-9 turbines   | 9   | Slight                      |
| 33     | CO057-010—    | Kiln - lime                | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 34     | KE086-004003- | Cairn - radial-stone cairn | T6                       | 2-3km                                  | 7-9 turbines   | 9   | Slight                      |
| 35     | KE086-004001- | Standing stone - pair      | T6                       | 2-3km                                  | 7-9 turbines   | 9   | Slight                      |
| 36     | CO057-009—    | Ritual site - holy well    | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 37     | KE085-021—    | Enclosure                  | T7                       | 2-3km                                  | 10+ turbines   | 12  | Moderate                    |
| 38     | KE086-001001- | Ringfort - cashel          | T6                       | 2-3km                                  | 4-6 turbines   | 6   | Slight                      |
| 39     | KE086-001003- | Hut site                   | T6                       | 2-3km                                  | 4-6 turbines   | 6   | Slight                      |
| 40     | KE086-001002- | Field boundary             | T6                       | 2-3km                                  | 4-6 turbines   | 6   | Slight                      |
| 41     | CO057-005—    | Kiln - lime                | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 42     | CO057-008008- | Hut site                   | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 43     | CO057-008002- | Hut site                   | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 44     | KE085-044—    | Bridge                     | T10                      | 2-3km                                  | 0 turbines     | 0   | None                        |
| 45     | CO057-008004- | Enclosure                  | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 46     | CO057-008001- | Field boundary             | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 47     | CO057-008003- | Hut site                   | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |



| Map ID | SMR NO.       | Class                        | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|------------------------------|--------------------------|--|----------------|---|-----------------------------|
| 48     | CO057-008006- | Hut site                     | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 49     | CO057-008005- | Enclosure                    | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 50     | CO057-008007- | Fulacht fia                  | T1                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 51     | KE085-037—    | Bridge                       | T7                       | 2-3km                                  | 0 turbines     | 0   | None                        |
| 52     | KE076-051001- | Burnt spread                 | T6                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 53     | KE076-016—    | Hut site                     | T6                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 54     | KE076-051002- | Burnt spread                 | T6                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 55     | KE086-008—    | Standing stone               | T6                       | 2-3km                                  | 7-9 turbines   | 9   | Slight                      |
| 56     | KE095-006—    | Country house                | T2                       | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| 57     | KE076-051003- | Burnt spread                 | T6                       | 2-3km                                  | 4-6 turbines   | 6   | Slight                      |
| 58     | KE076-051004- | Fulacht fia                  | T6                       | 2-3km                                  | 4-6 turbines   | 6   | Slight                      |
| 59     | KE075-029—    | Hut site                     | T6                       | 2-3km                                  | 7-9 turbines   | 9   | Slight                      |
| 60     | KE075-029001- | Hut site                     | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |
| 61     | KE085-015—    | Redundant record             | T10                      | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| 62     | KE076-038—    | Megalithic tomb - wedge tomb | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |
| 63     | KE075-028—    | Hut site                     | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |

| Map ID | SMR NO.       | Class                        | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|------------------------------|--------------------------|--|----------------|---|-----------------------------|
| 64     | CO057-006—    | Field boundary               | T1                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| 65     | KE086-011—    | Standing stone               | T1                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| 66     | KE075-027001- | Field boundary               | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |
| 67     | KE075-027—    | Enclosure                    | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 68     | KE075-040—    | Field system                 | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 69     | KE076-070—    | Standing stone               | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |
| 70     | KE075-045—    | Hut site                     | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 71     | KE075-044001- | Hut site                     | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 72     | KE075-044002- | Hut site                     | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 73     | KE075-041—    | Enclosure                    | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 74     | KE075-043—    | Hut site                     | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 75     | KE075-042—    | Hut site                     | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 76     | KE075-039002- | Hut site                     | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 77     | KE075-039001- | Hut site                     | T6                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 78     | CO057-007—    | Enclosure                    | T1                       | 3-4km                                  | 1-3 turbines   | 2   | Not Significant             |
| 79     | KE076-056—    | Megalithic tomb - wedge tomb | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |

| Map ID | SMR NO.       | Class                        | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|------------------------------|--------------------------|--|----------------|---|-----------------------------|
| 80     | KE076-056001- | Field boundary               | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |
| 81     | KE076-017—    | Redundant record             | T6                       | 3-4km                                  | 7-9 turbines   | 6   | Slight                      |
| 82     | CO057-011—    | Kiln - lime                  | T1                       | 3-4km                                  | 1-3 turbines   | 2   | Not Significant             |
| 83     | CO057-001—    | Kiln - lime                  | T1                       | 3-4km                                  | 1-3 turbines   | 2   | Not Significant             |
| 84     | CO057-002001- | Kiln - lime                  | T1                       | 3-4km                                  | 1-3 turbines   | 2   | Not Significant             |
| 85     | KE085-020—    | Enclosure                    | T7                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 86     | CO057-002002- | Redundant record             | T1                       | 3-4km                                  | 1-3 turbines   | 2   | Not Significant             |
| 87     | CO057-012—    | Structure                    | T1                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| 88     | CO057-004—    | Kiln - lime                  | T1                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| 89     | KE085-001—    | Megalithic tomb - wedge tomb | T7                       | 3-4km                                  | 10+ turbines   | 8   | Slight                      |
| 90     | KE076-059—    | Bridge                       | T6                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| 91     | KE076-015—    | Ritual site - holy well      | T6                       | 3-4km                                  | 0 turbines     | 0   | None                        |
| 92     | KE076-015002- | Cross-inscribed stone        | T6                       | 3-4km                                  | 0 turbines     | 0   | None                        |
| 93     | KE076-015003- | Cross-inscribed stone        | T6                       | 3-4km                                  | 0 turbines     | 0   | None                        |
| 94     | KE076-015001- | Cross-inscribed stone        | T6                       | 3-4km                                  | 0 turbines     | 0   | None                        |



| Map ID | SMR NO.       | Class                     | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|---------------------------|--------------------------|--|----------------|---|-----------------------------|
| 95     | KE076-015004- | Cross-inscribed stone     | T6                       | 3-4km                                  | 0 turbines     | 0   | None                        |
| 96     | KE076-015005- | Cross-inscribed stone     | T6                       | 3-4km                                  | 0 turbines     | 0   | None                        |
| 97     | CO057-003—    | Redundant record          | T1                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| 98     | KE076-018002- | Hut site                  | T4                       | 3-4km                                  | 7-9 turbines   | 3   | Not Significant             |
| 99     | KE086-007—    | Megalithic structure      | T1                       | 4-5km                                  | 0 turbines     | 0   | None                        |
| 100    | KE076-018003- | Redundant record          | T4                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |
| 101    | KE076-018—    | Field boundary            | T4                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |
| 102    | KE076-018001- | Hut site                  | T4                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |
| 103    | CO068-001—    | Kiln - lime               | T1                       | 4-5km                                  | 0 turbines     | 0   | None                        |
| 104    | CO069-076—    | Stone circle - five-stone | T1                       | 4-5km                                  | 1-3 turbines   | 1   | Not Significant             |
| 105    | KE085-042—    | Hut site                  | T7                       | 4-5km                                  | 10+ turbines   | 4   | Not Significant             |
| 106    | KE075-020—    | Redundant record          | T6                       | 4-5km                                  | 0 turbines     | 0   | None                        |
| 107    | KE085-031—    | Enclosure                 | T10                      | 4-5km                                  | 10+ turbines   | 4   | Not Significant             |
| 108    | KE076-011001- | Children's burial ground  | T6                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |
| 109    | KE076-011002- | Cross-slab                | T6                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |
| 110    | KE076-011004- | Leacht                    | T6                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |

| Map ID | SMR NO.       | Class                    | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|--------|---------------|--------------------------|--------------------------|--|----------------|---|-----------------------------|
| 111    | KE076-011005- | Cross-inscribed stone    | T6                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |
| 112    | KE076-011003- | Ecclesiastical enclosure | T6                       | 4-5km                                  | 7-9 turbines   | 3   | Not Significant             |
| 113    | KE076-065—    | Kiln - lime              | T6                       | 4-5km                                  | 0 turbines     | 0   | None                        |
| 114    | KE086-002—    | Road - road/trackway     | T1                       | 4-5km                                  | 0 turbines     | 0   | None                        |
| 115    | KE076-061—    | Bridge                   | T6                       | 4-5km                                  | 1-3 turbines   | 1   | Not Significant             |
| 116    | KE076-060—    | Bridge                   | T6                       | 4-5km                                  | 4-6 turbines   | 2   | Not Significant             |
| 117    | KE085-014—    | Ringfort - rath          | T10                      | 4-5km                                  | 10+ turbines   | 4   | Not Significant             |
| 118    | KE085-014002- | Children's burial ground | T10                      | 4-5km                                  | 10+ turbines   | 4   | Not Significant             |
| 119    | KE085-014001- | Souterrain               | T10                      | 4-5km                                  | 10+ turbines   | 4   | Not Significant             |
| 120    | CO069-085—    | Standing stone           | T1                       | 4-5km                                  | 4-6 turbines   | 2   | Not Significant             |
| 121    | KE085-013—    | Ringfort - rath          | T10                      |  | 10+ turbines   | 4   | Not Significant             |

### Proposed Mitigation Measures

It is not possible to provide a mitigation measure which would alleviate the potential effects on setting.

### Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts as identified in Table 14-8 (None to Significant effects).

### Significance of Effects

The overall significance of effects will be None - Significant. In reality, however, the effect will be less severe since the ZTV model does not take natural screening and buildings into consideration which will

alleviate if not remove the impact on setting altogether. Furthermore, some monuments may not be readily visible in the landscape which further ameliorates potential effects on setting. Additionally many of these monuments are located on private land which are not formally accessible to the public.

#### 14.4.3.5 **Kerry Archaeological Landscapes**

##### 14.4.3.5.1 **The Paps**

###### Pre-mitigation Impact

The designated Archaeological Landscape (Site No. 13) (The Paps- Annaghbeg. Annaghmore / Doocarrig More / Gortacoreen/Gortderrig/Shrone More/ Shrone Beg / Gortnagane / Raheen / Awnaskirtaun / Knocknabro / Knockagowan / Derrynafinnia / Derrymaclavloide / Killeen / Carrigaveema / Coolcurtoga) is located 4.3km to the north of the nearest proposed turbine T6. There are no instances where the Proposed Development encroaches into the designated landscape boundary.

A photowire (VP25) was taken from the western summit of the Paps and shows that portions of all eleven proposed turbines will be visible from this location. As outlined in the LVIA assessment on Cultural Heritage receptors (Chapter 13), there are open views of the proposed turbines from the western summit of the Paps (VP25). It should be noted, however, that this visibility will be limited to areas of high elevation, such as the summit, and that views of the Paps themselves will not be obstructed by the proposed turbines. In this regard the appreciation of the Paps from the wider surrounding landscape will not be negatively impacted by the proposed turbines. Furthermore, the proposed turbines will be replacing those already existing turbines that were already visible and therefore will not result in any noticeable change to the wider landscape views from the Paps summit. In fact the Proposed Development will result in a reduction of the number of turbines visible from the Paps.

Using the grading of potential significance of effects as outlined in Table 14-7 above on this archaeological landscape a Not Significant effect is determined (4-5km distance x 11 turbines potentially visible).

###### Proposed Mitigation Measures

It is not possible to provide a mitigation measure which would alleviate the potential effects on setting.

###### Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts.

###### Significance of Effects

The overall significance of effects will be Not Significant.

##### 14.4.3.5.2 **Mangerton**

###### Pre-Mitigation Impact

A second designated landscape Mangerton/Cumeenduvassig Bausheen / Slaght / Knockeens (Site no 15) is located over 6km to the west of the nearest proposed turbine T7. The archaeological landscape boundary was overlaid onto the ZTV which shows that areas where large clusters of monuments are



located have no visibility in the direction of the proposed turbines. There are areas in the north eastern portion of the landscape which show theoretical visibility of over 10 turbines.

A photowire (VP29) was taken from the southern slopes of Mangerton which contains numerous archaeological monuments and from which there is theoretical visibility of the proposed turbines. Similar to the Paps, the visibility of the proposed turbines from Mangerton archaeological landscape will generally be limited to higher elevations and will not obstruct views of the area of Mangerton landscape itself. the appreciation of the Mangerton landscape from the wider surrounding landscape will not be negatively impacted by the proposed turbines. Furthermore, the proposed turbines will be replacing those already existing turbines that were already visible and therefore will not result in any noticeable change to the wider landscape views from Mangerton. In fact the Proposed Development will result in a reduction of the number of turbines visible from this area.

In this regard a Not Significant effect on the setting of the Mangerton archaeological landscape as a result of the Proposed Development is noted.

### Proposed Mitigation Measures

It is not possible to provide a mitigation measure which would alleviate the potential effects on setting.

### Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts.

### Significance of Effects

The overall significance of effects will be Not Significant.

## 14.4.3.6 Newly Recorded Archaeological Sites

### Pre-mitigation Impact

Three new archaeological / cultural heritage features were noted within the existing Lettercannon section of the Proposed Development. They are located adjacent to existing roads which were built as part of the Lettercannon Wind Farm. In terms of sensitivity, the features are low-lying and are of non-statutory, local cultural heritage merit. In this regard the pre-mitigation impact on setting is considered to be Not significant.

### Proposed Mitigation Measures

It is not possible to provide a mitigation measure which would alleviate the potential effects on setting.

### Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts (Not Significant).

### Significance of Effects

The overall significance of effects will be Not Significant and reversible.

### 14.4.3.7 Protected Structures

#### Pre-Mitigation Impact

Four protected structures are located within 5km of the nearest proposed turbine and these are detailed in Table 14-4 above with the relevant distances to turbines and shown on Figure 14-9. There are no structures within 2km of the nearest proposed turbine. When overlaid on the ZTV, the two structures to the north at Derreenacullig townland (Loo Bridge Hostel and Loo Railway Bridge) are located in areas where potentially 4 to 6 turbines may theoretically be seen (not assuming any existing vegetation, buildings). In reality, screening and topography effectively screen the structures which are located on private land.

Morley's Bridge (RPS KY0476) is located on the periphery of an area on the ZTV which shows theoretical visibility of between 1 and 3 turbines, again not assuming any buildings, topography or natural vegetative screening. In reality no views are possible due to substantial rocky outcrops and intervening vegetation.

The National School (RPS KY0475) is located in an area which has theoretical visibility of between 4 and 6 turbines. However, in reality, the screening on the east side of the public road is such that screening will alleviate any potential visual effects on setting.

The effects on setting as detailed in Table 14-9 below vary from Slight to Not Significant whereas in reality the effects will be less than that identified due to natural mitigatory factors such as screening, vegetation and buildings. In reality, however, the effect will be less severe since the ZTV model does not take natural screening and buildings into consideration which will alleviate if not remove the impact on setting altogether.

Table 14-7: Significance of Effects according to distance to turbines and number of turbines theoretically visible.

| RPS NO.     | NAME                            | TD NAME         | Nearest Proposed Turbine | Distance range to nearest turbine (KM) | ZTV visibility | Grade of Significance of effects on setting | Potential Effect on Setting |
|-------------|---------------------------------|-----------------|--------------------------|--|----------------|---|-----------------------------|
| RPS-KY-0475 | Morley's Bridge National School | Inchincosh      | T10                      | 2-3km                                  | 4-6 turbines   | 6   | Slight                      |
| RPS-KY-0476 | Morley's Bridge                 | Redtrench North | T10                      | 2-3km                                  | 1-3 turbines   | 3   | Not Significant             |
| RPS-KY-0497 | Loo Bridge Hostel               | Derreenacullig  | T6                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |
| RPS-KY-0498 | Loo Railway Bridge              | Derreenacullig  | T6                       | 3-4km                                  | 4-6 turbines   | 4   | Not Significant             |

#### Proposed Mitigation Measures

It is not possible to provide a mitigation measure which would alleviate the potential effects on setting.

## Residual Impact

Since no mitigation measures can be proposed, the residual effects will be the same as the pre-mitigation impacts (Slight to Not Significant).

## Significance of Effects

The Proposed Development will have no significant effect on the setting of the structures. The overall significance of effects will be Slight-Not Significant and reversible.

### 14.4.3.8 NIAH

Four NIAH structures are located within 5km of the nearest proposed turbine and are also protected structures. Effects on setting are therefore addressed above in 14.4.3.7.

## 14.5 Cumulative Impacts

Cumulative impact is defined as ‘*The addition of many small impacts to create one larger, more significant, impact*’ (EPA 2022). Cumulative impacts encompass the combined effects of multiple developments or activities on a range of receptors. In this case, the receptors are the archaeological monuments and architectural/cultural heritage sites in the immediate vicinity of the Proposed Development. Cumulative Impacts at the Construction and Operational Stages are considered.

### 14.5.1 Cumulative Impacts (Direct Impacts – Construction stage)

The addition of other projects to the Proposed Development project was considered in order to assess Cumulative Impacts. These included all other wind farms within 25km of the Proposed Development. Direct effects for the Proposed Development are considered to be confined to within the EIAR Site Boundary and relate to construction effects.

Other projects within 20km of the Proposed Development are also deemed to have been assessed through the EIAR and Planning Application process with suitable mitigation measures being implemented.

The mitigation measures which will be implemented for the Proposed Development are such that no significant direct effects will take place and therefore will not contribute significantly to a cumulative direct effect.

#### 14.5.1.1 Cumulative impacts (direct) considering other wind farms within 25km

The majority of projects as listed on Figure 14-14 (including existing, permitted and proposed developments) are located near to the Proposed Development. Each cultural heritage asset is assessed cumulatively.

##### 14.5.1.1.1 Cumulative effects to UNESCO World Heritage sites, National Monuments in State Care, Recorded Monuments, NIAH and RPS

There are no UNESCO WHS or those on a Tentative list, National Monuments, Recorded Monuments, RPS structures or NIAH sites located within the footprint of the Proposed Development, therefore no

direct effects on this resource were identified when considering the Proposed Development alone. In this regard no cumulative direct impacts to the known cultural heritage sites will occur.

#### 14.5.1.1.2 **Cumulative impact to potential unknown sub-surface sites**

Direct effects to sub-surface archaeological features/sites can occur as a result of topsoil or peat removal and groundworks. The Proposed Development in combination with other developments, could result in potential increased negative effects to sub-surface archaeological features (i.e. cumulative impacts). Since all projects have been assessed from a cultural heritage perspective through the EIAR process, all potential negative effects are deemed to have been dealt with through the use of effective mitigation measures and planning conditions issued through the Planning Authorities. Furthermore, the Proposed Development will utilise as much of the existing infrastructure as possible thereby minimising overall cumulative effects.

If the mitigation measures prescribed in this EIAR are implemented then cumulative direct effects to unknown sub-surface archaeology will not occur, regardless of the other projects.

### 14.5.2 **Cumulative Impacts (Indirect Impact on Setting)**

Indirect impacts on setting occur at the operational stage of the development (when turbines are operational). In this regard in order to assess overall cumulative effects on archaeology and cultural heritage, the Proposed Development is considered in the context of other developments, in particular other permitted and proposed wind farms as detailed below. This map shows the location of existing, permitted and proposed turbines within the vicinity of the Proposed Development.

#### 14.5.2.1 **UNESCO World Heritage sites**

There are no UNESCO world heritage sites or those on a Tentative list within the study area considered for such cultural heritage assets. No cumulative effects will therefore occur.

#### 14.5.2.2 **National Monuments in State Care**

National Monuments are those recorded monuments which are in the ownership / guardianship of the Minister for Housing, Local Government and Heritage. They are frequently referred to as being in 'State Care'. National Monuments also include those which are subject to a Preservation Order. No National Monuments are located within the Proposed Development site or within 10km of the nearest proposed turbine. No cumulative effects will therefore occur.

#### 14.5.2.3 **Recorded Monuments, RPS and NIAH structures (5km)**

When the Proposed Development is considered alone, the potential effects on setting of RMPs, NIAHs and RPS structures vary from None to Significant. Potential effects on setting as detailed in Section 14.4.3.4 and 14.4.3.7 are based on the worst-case scenario in that natural screening, boundaries, buildings and vegetation are not taken into account in the ZTV model. In reality, however, the effect will be less severe when natural screening and buildings, which will alleviate if not remove the impact on setting altogether, are taken into consideration. Furthermore, many of these monuments may not be readily discernible in the landscape which further ameliorates effects on setting. Theoretically, when considered cumulatively with other projects within the 5km assessment area, the effects on setting will increase given the proximity of the other projects to the Proposed Development. A mitigatory factor, however, is the reduction in numbers of turbines from 28 to 11. The Proposed Development will not therefore contribute to cumulative effects but rather reduce the overall landscape effects.



#### 14.5.2.4 **Kerry Archaeological Landscapes**

When the Proposed Development is considered alone, the potential effects on the setting of the Paps archaeological landscape and Mangerton archaeological landscape are regarded as Not Significant. As noted in the LVIA chapter (Chapter 13) VP25 taken from the summit of the Paps demonstrates that the Proposed Development will be viewed in combination with the existing Grousemount, Barnastooka, Midas, Coomagerlaghy II and Caherdowney wind turbines. The LVIA chapter also notes that several other existing, permitted and proposed wind farms will be visible to the east, beyond the eastern summit of the Paps, therefore some in-combination sequential cumulative visual effects occur. When considered cumulatively with those other wind farms, the Not Significant effect on setting to the Paps archaeological landscape may increase, however, this may be ameliorated by the reduction in number of turbines from the existing 28 to 11 (proposed).

As noted in the LVIA chapter (Chapter 13), VP29 taken from the slopes of Mangerton shows that the Proposed Development will be viewed in combination with the existing Clydraghroe, Cummeenabuddoge, Curragh, Coomacheo, Grousemount, Barnastooka, Coomagerlaghy and Caherdowney turbines, as well as the permitted Gneevs and Knocknamork and proposed Inchamore turbines. In this regard cumulative effects are considered to occur. When considered cumulatively with those other wind farms, the Not Significant effect on setting to the Mangerton archaeological landscape may increase, however, this may also be ameliorated by the reduction in number of turbines from the existing 28 to 11 (proposed).

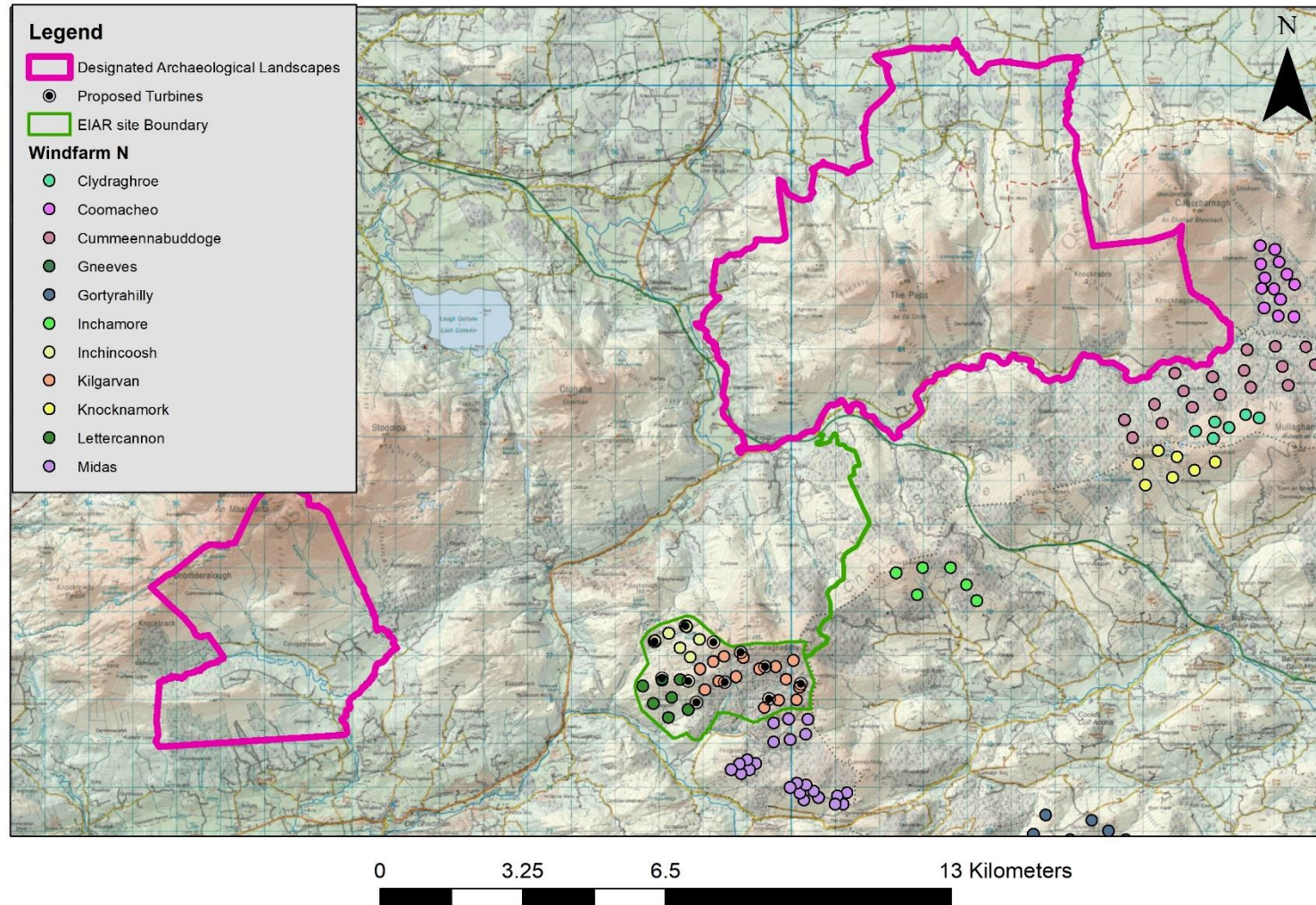


Figure 14-12: Designated archaeological landscapes of the Paps and Mangerton in relation to Proposed Development and other surrounding wind farms.

14.6

## Conclusion

This Cultural Heritage chapter was prepared by Tobar Archaeological Services Ltd. It presents the results of an archaeological, architectural and cultural heritage impact assessment of the Proposed Development. The assessment was based on desktop research, field surveys, GIS based mapping, ZTV and was also assisted by photowire images/photomontage from certain assets. A detailed examination of the available baseline data was undertaken in addition to a comprehensive site inspection. No National Monuments are located within the Proposed Development EIAR Site Boundary or within 10km of the nearest proposed turbine. Six recorded monuments are located within the EIAR Site Boundary and mitigation measures are recommended in order to prevent any accidental damage to same.

Where potential impacts have been identified, such as to potential sub-surface archaeology, appropriate mitigation measures have been recommended in order to minimise any such impacts. Recommended mitigation includes archaeological monitoring of groundworks during the construction stage of the project.

Potential indirect effects on the setting of any UNESCO World Heritage Sites and those on a Tentative List within 20km, National Monuments within 10km, recorded monuments within 5km and RPS/NIAH structures within 5km were included in order to assess potential effects on setting in the wider landscape. Potential visual effects on the Paps archaeological landscape and Mangerton archaeological landscape were also considered. The ZTV demonstrates theoretical visibility of the proposed turbines from the majority of cultural heritage assets within 5km, although there are instances where the proposed turbines will not be visible from some assets. Both the distance to the nearest turbine and the number of turbines visible from each cultural heritage asset were used to arrive a level of potential effect on setting. Potential effects on setting are based on the worst-case scenario in that natural screening, boundaries, buildings and vegetation are not taken into account in the ZTV model and in reality, the potential effect is likely to be less. Furthermore, many of these monuments/structures may not be readily discernible in the landscape which further ameliorates effects on setting. Additionally, the Proposed Development will result in the reduction of the number of turbines visible in the wider landscape.

An assessment of potential cumulative effects was also undertaken taking into consideration other extant planning applications and operational and proposed wind farms within 25km. While some potential cumulative visual effects to the wider setting of cultural heritage assets is possible when considered with the operational and proposed wind farms, no significant cumulative impacts have been identified and no cumulative effects to the immediate setting of cultural heritage assets will occur.