

ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) FOR THE PROPOSED DERRYNADARRAGH WIND FARM, CO. KILDARE AND CO. OFFALY

Volume 2 – Main EIAR

Chapter 15 – Archaeology and Cultural Heritage

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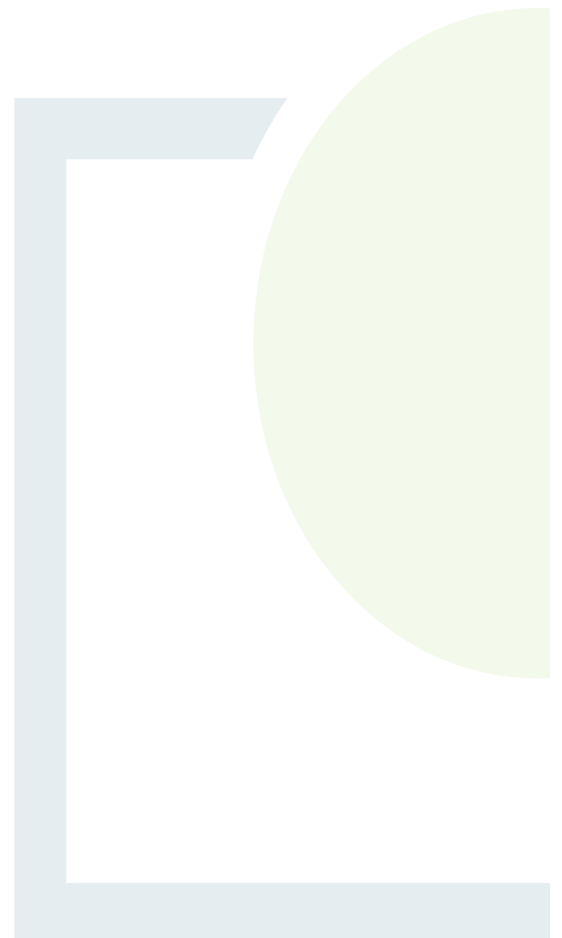


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15. CULTURAL HERITAGE

15.1 Introduction

This chapter examines the potential effects of the proposed Derrynadarragh Wind Farm, associated grid connection and turbine delivery route on the existing cultural heritage resource. The tangible elements of the cultural heritage resource can be broadly divided into the archaeological resource, which comprises sites, monuments and objects, dating from prehistory to the post-medieval period and the architectural heritage resource, encompassing standing structures and sites of cultural importance often dating to the post-medieval and modern periods. In addition, local place names, historical associations, folklore and traditions are considered part of the intangible cultural heritage resource. Mitigation measures to reduce or eliminate effects on the cultural heritage resource are prescribed as necessary. The assessment also considers the cumulative impacts associated with other nearby developments.

A full description of the Proposed Development assessed in this EIAR is provided in Chapter 2: Development Description and it comprises the following elements:

- The 'Proposed Wind Farm' (also referred to in this EIAR as the 'Site');
- The 'Proposed Grid Connection' (also referred to in this EIAR as the 'GC');
- The 'Turbine Delivery Route' (also referred to in this EIAR as the 'TDR');
- The 'Biodiversity Enhancement Management Plan Lands' (also referred to in this EIAR as the 'BEMP Lands').

The general layouts of the Site, GCR and TDR are presented in Figures 2.4 to 2.6 in Volume IV of the EIAR.

This Chapter should be read in conjunction with the following appendices:

- Appendix 15.1, Volume III – Cultural Heritage Figures
- Appendix 15.2, Volume III – Cultural Heritage Photographic Record

15.2 Statement of Authority

This chapter has been prepared by Tony Cummins, a Senior Archaeologist with John Cronin and Associates. He holds B.A. and M.A. degrees in archaeology (University College Cork 1992/1994) and has accumulated thirty years' continuous professional experience. He has extensive experience in the preparation of cultural heritage impact assessments for a wide range of renewable energy projects, including wind farms, which has included carrying out programmes of desktop research, field surveys and site investigations as well as liaising with project design teams and relevant local and national authorities. Examples of relevant assessments prepared by this specialist in recent years include:

- Ballinagree Wind Farm, County Cork.
- Inchamore Wind Farm, County Cork.



15.3 Study Areas

There are no professional guidelines which define the extent of study areas required to assess the effects of wind farm developments on the cultural heritage resource. The extent of the study areas used for this assessment are, therefore, informed by the years of experience and professional judgement of the specialist and are considered suitable for the assessment of potential effects.

The primary study area reviewed for the assessment comprised the Site and the surrounding lands extending for 2km in all directions from the locations of proposed infrastructure / works. The extent of this study area is suitable as it facilitated the compilation of a baseline context for the known cultural heritage resource, including recorded archaeological sites, protected structures and structures/lands listed in the National Inventory of Architectural Heritage (NIAH), within the Site and its surrounds which informed the assessment of potential direct and indirect effects of potential medium-high magnitude on the locations and settings of known cultural heritage constraints within this area. The study area contains various cultural heritage constraints which are located within inaccessible private properties. The assessment of these constraints was informed information gathered during the desktop study, including reviews of published Archaeological Survey of Ireland (ASI) inventory descriptions, historic maps and modern aerial/satellite imagery. The Database of Irish Excavation Reports was also reviewed for lands within the Site and the surrounding 2km Study Area to ascertain if any previously unrecorded archaeological sites have been identified within its environs. In addition, the lands located within the Site boundary were also reviewed to determine if they any contain any potential undesignated cultural heritage assets, such as townland names and vernacular structures not listed as protected structures or included in the NIAH.

A 100m wide study area corridor centred on the GCR and TDR work areas were also assessed. The extent of this area was chosen in order to appraise if there are any known cultural heritage constraints within the localised footprints or close environs of these elements of the project, including potential sub-surface remains which may be susceptible to direct effects arising from construction activities.

In addition, a review of lands extending for 10km from the Site was carried out to assess potential indirect visual effects on cultural heritage constraints within this area which have potential notable visual sensitivities that extend beyond their immediate settings. These include National Monuments in State Care, archaeological sites subject to Preservation Orders and archaeological monuments with potential ritual visual alignments across the wider landscape such as stone circles, stone rows and megalithic tombs. This review was carried out to assess the potential for any likely significant intrusions on monument attributes such as their wider settings and/or recorded alignments across the wider landscape. The extent of the 10km area was chosen in order to appraise if the wider landscape contains individual or groupings of such visually sensitive cultural heritage constraints that may be susceptible to potential medium-to-high magnitudes of indirect effects on their wider settings or alignments. The review of the 10km area also informed the assessment of potential cumulative effects with other developments in the wider landscape.

The Landscape and Visual Impact Assessment (Chapter 16) includes the results of an assessment of potential visual impacts on publicly accessible heritage receptors within the wider landscape extending for 20km in all directions from the Site and this was also reviewed as were relevant Zone of Theoretical Visibility mapping and photomontages prepared as part of that assessment.

15.4 Consultation

This EIAR chapter has been compiled in light of the comments received from consultees throughout the EIA process, the relevant elements of which are summarised hereunder and are presented in detail in Chapter 5 - Scoping and Consultation.



15.4.1 Department of Housing, Local Government and Heritage

A scoping report for the Proposed Development was issued to the National Monuments Service, Department of Housing, Local Government and Heritage via the Development Applications Unit (DAU ref. G Pre00395/2024). The archaeological observations/recommendations received in response from the Department on 07/02/25 note that the applicant is required to engage the services of a suitably qualified archaeologist to carry out an Archaeological Impact Assessment of the development site which should:

- a. examine the known and predicted archaeological environment
- b. examine the proposed development
- c. evaluate the proposed development in terms of the impact (direct and indirect) of the proposed works on existing or predicted archaeology
- d. propose a strategy to mitigate any adverse effects of the development on the archaeological heritage.

The Department's response also states the following:

The archaeologist should carry out any relevant documentary research and inspect the site. Field survey, topographical survey or geophysical survey should be undertaken as the initial phase of assessment, as appropriate. Based on the results of the initial investigations test excavation may be appropriate. Following further consultation with the Department test trenches may also be excavated at locations chosen by the archaeologist (informed by the results of the previous methods of non-intrusive assessment) to target the results of the topographical and/or geophysical analysis.

A Visual Impact Assessment of the impact of the proposed development on adjacent archaeological material shall be carried out. Views to and from adjacent archaeological monuments shall be assessed in light of the proposed development and views of the monuments from all adjacent roads and approach roads assessed in relation to the proposed works.

The assessment presented in this chapter includes the results of an archaeological desktop study of the location of the Proposed Development and surrounding lands as well the results of field surveys of all proposed development areas. The chapter also presents the results of an assessment of potential visual impacts on recorded archaeological sites within the wider landscape, including National Monuments in State Care, archaeological sites subject to Preservation Orders and monuments with potential ritual alignments within lands extending for 10km from the Proposed Development. This also included a review of the Landscape and Visual Amenity assessment (Chapter 16) and relevant photomontages and Zone of Theoretical Visibility mapping prepared as part of that assessment.

The chapter also presents a strategy to mitigate potential adverse effects of the Proposed Development on any unrecorded, sub-surface archaeological remains that may exist within development areas. This will include a programme of archaeological test trenching which will be carried out under licence by the National Monuments Service following a grant of planning and in advance of the construction phase. The locations of lands within development areas that are not suitable for advance test trenching, e.g. forestry plantations, will be subject to archaeological monitoring during the construction phase.

The assessment presented in this chapter has, therefore, been conducted on the basis of desktop research and walkover surveys and it is deemed that sufficient information exists in recorded datasets to determine likely significant effects on the cultural heritage resource.



15.5 Methodology

15.5.1 Desk Study

Section 15.7 of this chapter presents the results of the desktop study of relevant published sources and datasets which was carried out in order to identify all recorded and potential archaeological, architectural and other cultural heritage constraints within the environs of the Site. The principal sources reviewed for the assessment of the known archaeological resource were the Sites and Monuments Record (SMR) and the Record of Monuments and Places (RMP). The Records of Protected Structures (RPS) published in current Offaly, Kildare and Laois County Development Plans, including proposed protected structures, and the National Inventory of Architectural Heritage (NIAH) were consulted in relation to the designated architectural heritage resource.

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

Development Plans: The Site extends into Counties Offaly and Kildare and a section of the GCR also extends into County Laois. The Offaly County Development Plan 2021-2027, the Kildare County Development Plan 2023-2029 and the Laois County Development Plan 2021-2027 were consulted as part of the assessment. These publications outline the respective Councils' policies for the conservation of the archaeological, architectural and cultural heritage resource within the county and includes the Record of Protected Structures (RPS) as well as designated Architectural Conservation Areas (ACA).

National Monuments in State Care and Preservation Orders: A review of published NMS lists identifying the National Monuments in State Care in Counties Offaly¹, Kildare² and Laois³ was carried out as part of the assessment. A review of a published NMS nationwide list⁴ of archaeological sites subject to Preservation Orders was also carried out.

Archaeological Survey of Ireland: The Archaeological Survey of Ireland published an archaeological inventory for County Offaly in 1999⁵ and for County Laois in 1995⁶, and the archaeological sites recorded within these counties since the publication of these inventories have been added to the National Monuments Service's online Historic Environment Viewer⁷. While there is no published archaeological inventory for County Kildare, the Historic Environment Viewer also provides summary inventory descriptions of the recorded archaeological sites within the county. The current SMR records of known archaeological sites were reviewed on the Historical Environment Viewer in September 2025 and relevant inventory entries are included within the chapter (Section 15.7.1).

Heritage Council of Ireland: Heritage Map Viewer: This online mapping resource⁸ collates various cultural heritage datasets compiled by, among others, the National Monuments Service, the National Museum of Ireland, Local Authorities, the Royal Irish Academy and the Office of Public Works and was reviewed in September 2025.

¹ <https://www.archaeology.ie/sites/default/files/media/pdf/monuments-in-state-care-offaly.pdf>

² <https://www.archaeology.ie/sites/default/files/media/pdf/monuments-in-state-care-kildare.pdf>

³ <https://www.archaeology.ie/sites/default/files/media/pdf/monuments-in-state-care-laois.pdf>

⁴ <https://www.archaeology.ie/sites/default/files/media/publications/po19v1-all-counties.pdf>

⁵ O'Brien, C. & Sweetman, P.D (1999) *Archaeological Inventory of County Offaly*. Stationary Office.

⁶ Sweetman, D. et al (1995) *Archaeological Inventory of County Laois*. Stationary Office.

⁷ <https://heritagedata.maps.arcgis.com/apps/webappviewer/index.html?id=0c9eb9575b544081b0d296436d8f60f8>

⁸ www.heritagemaps.ie



Database of Irish Excavation Reports: The online Database of Irish Excavation Reports⁹ contains summary descriptions of the results of archaeological site investigations carried out in Ireland (North and South) from 1969 to present. Current data was accessed in September 2025.

Literary Sources: Various published sources were consulted in order to assess the archaeological, historical, architectural heritage and folklore resource and references for these are provided within the chapter.

Historic Maps: A review of various historic map editions published by the Ordnance Survey from the mid-19th century onward was carried out. These sources can indicate the presence of past settlement patterns, including features of archaeological and architectural heritage significance that no longer have any surface expression. Extracts from the reviewed maps are presented in Appendix 15.1.

Aerial and Satellite Imagery: A review of available imagery of the study area (Google Earth, Bing Maps and Tailte Éireann), was carried in order to ascertain if any traces of undesignated cultural heritage features, including sub-surface archaeological sites, were visible within the environs of the Proposed Development.

Irish National Folklore Collection: Transcribed material from the National Folklore Collection archive which has been digitised and published online¹⁰ was reviewed in September 2025.

UNESCO World Heritage Sites and Tentative List: There are currently two designated World Heritage sites in Ireland (Brú na Bóinne, Co. Meath and Sceilg Mhichíl, Co. Kerry) and neither of these are located within the environs of the Proposed Development. A number of other examples have been included in a Tentative List (2023) nominated by Ireland for inclusion, and these comprise the Passage Tomb Landscape of County Sligo, the Transatlantic Cable Ensemble, County Kerry and the Royal Sites of Ireland (Dún Ailinne, County Kildare; Hill of Uisneach, County Westmeath; Rock of Cashel, County Tipperary; Rathcroghan, County Roscommon and Tara, County Meath)¹¹. There are no examples located within the 10km study area reviewed as part of this assessment. In addition, there are no examples located within the 20km study area assessed in the Landscape and Visual Assessment (Chapter 16).

15.5.2 Field Assessment

The Proposed Development was inspected on 17th January 2025 and this included field-walking surveys of the Site, GCR and areas of the TDR where accommodation works are proposed. The inspected lands were assessed in terms of historic landscape, existing land use and the potential for the presence and survival of unrecorded archaeological and undesignated architectural heritage sites/features. The results of the field surveys are described in Section 15.7.2 of the chapter while annotated extracts from the photographic record are provided in Appendix 15-2.

⁹ www.excavations.ie

¹⁰ www.duchas.ie

¹¹ [Ministers announce new World Heritage Tentative List for Ireland | Tentative List | World Heritage | World Heritage Ireland](#)



15.5.3 Relevant Legislation, Guidance and Planning Frameworks

The National Monuments Service (NMS) and the National Built Heritage Service (NBHS), which are currently based in the Department of Housing, Local Government and Heritage (DHLGH), are responsible for the protection and promotion of Ireland's archaeological and architectural heritage resources. The management and protection of the Irish cultural heritage resource is achieved through a framework of international conventions, national laws, guidelines and planning policies. This framework includes legislation established in accordance with the provisions of the 'European Convention on the Protection of the Archaeological Heritage' (the Valletta Convention) and the 'European Convention on the Protection of Architectural Heritage' (Grenada Convention) which were both ratified by Ireland in 1997. In addition, the UNESCO 'Convention for the Safeguarding of the Intangible Cultural Heritage', 2003, was ratified by Ireland in 2015.

The methodology used for this assessment is based on Environmental Protection Agency (EPA 2022) *Guidelines on the information to be contained in Environmental Impact Assessment Reports* (EIAR) and the European Commission (2017) *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report*. As detailed in Section 15.6, the assessment is also based on the International Council on Monuments and Sites (ICOMOS 2011) *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*. National guidance documents relevant to the architectural and archaeological heritage resources comprise *Architectural Heritage Protection: Guidelines for Planning Authorities* (Department of Arts, Heritage and Gaeltacht (2011) and *Framework and Principles for the Protection of Archaeological Heritage* (Department of Arts, Heritage, Gaeltacht and the Islands 1999).

15.5.3.1 Archaeological Legal Framework

The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 was signed into law in October 2023. The DHLGH published an online guidance document in relation to this Act in November 2023¹² which provides an overview of its current status, and this is summarised hereafter. While the Act is now law most of its provisions will not enter into force until the Minister has made one or more "Commencement Orders". This means that section 7 of the Act (which provides for the repeal of the National Monuments Acts 1930 (as amended) and related legislation) has not entered into force. Accordingly, the National Monuments Acts 1930 (as amended) remain fully in force and will continue to do so for the time being. The Act contains transitional provisions which will, if necessary, enable certain aspects of the existing National Monuments Acts 1930 (as amended) to continue in operation notwithstanding their repeal post-commencement of the Act while successor provisions are being brought fully into operation. This includes provisions enabling the Record of Monuments and Places to continue to have effect pending the establishment of a new Register of Monuments. A commencement order made on 31st May 2024, insofar as it relates to the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 (other than section 5), has come into operation. On 12th December 2024, further provisions of the Act came into operation, and these relate to historic wrecks and underwater archaeological objects, and also for Irish citizens (and a range of specified other persons), and vessels operating in international waters if they intend to engage in activities directed at underwater cultural heritage.

¹²<https://www.archaeology.ie/news/enactment-of-historic-and-archaeological-heritage-and-miscellaneous-provisions-act-2023-and>



The National Monuments Acts 1930 (as amended) therefore currently remains the primary means of ensuring the satisfactory protection of the archaeological resource. There are a number of mechanisms under the National Monuments Acts that are applied to secure the protection of archaeological monuments. These include the designation of National Monument status to examples considered to be of national significance as well as listing monuments in the Register of Historic Monuments (RHM), the Record of Monuments and Places (RMP) and the Sites and Monuments Record (SMR). In addition, Preservation Orders and Temporary Preservation Orders may also be assigned to archaeological sites that are deemed to be in danger of damage or destruction.

Section 2 of the National Monument Act 1930 describes a National Monument as ‘a monument or the remains of a monument, the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto’. The prior written consent of the Minister of Housing, Local Government and Heritage is required for works at or in proximity to a National Monument in the ownership or guardianship of the Minister or a Local Authority as well as archaeological sites which are subject to a Preservation Order under the National Monuments Act 1930 (as amended).

The Record of Monuments and Places (RMP) comprises county-based lists and maps of archaeological monuments and places for each county in the State. It was established under Section 12(1) of the National Monuments (Amendment) Act 1994 and was based on the Register of Historic Monuments (RHM) and Sites and Monuments Record (SMR). All archaeological sites listed in the RMP receive statutory protection under the National Monuments (Amendment) Act, 1994. Any person (including a landowner) proposing to carry out, or to cause or to permit the carrying out of, any work at or in relation to a recorded monument must give notice in writing to the Minister of Housing, Local Government and Heritage two months before commencing that work.

15.5.3.2 Architectural Heritage Legal Framework

The protection of architectural heritage is provided for through a range of legal instruments that include the Planning and Development Act 2000 (as amended), the Heritage Act 1995 (as amended), and the Architectural Heritage (National Inventory) and National Monuments (Miscellaneous Provisions) Act 1999.

Section 2(1) of the Heritage Act 1995, defines architectural heritage as including:

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

The Planning and Development Act 2000 (as amended) requires Planning Authorities to keep a ‘Record of Protected Structures’ (RPS) which list buildings and other structures considered to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. The RPS is listed in Local Authority development plans and planning permission is required for any works to such structures that would affect their character. This Act also provides for the inclusion of objectives for preserving the character of places, areas, groups of structures or townscapes of special interest which are designated as Architectural Conservation Areas (ACAs). In addition, the National Inventory of Architectural Heritage (NIAH), including the NIAH Historic Gardens and Designed Landscapes, comprises a non-statutory record of built heritage structures and associated lands within the State. While inclusion in a NIAH inventory does not provide statutory protection, the inventory is intended to advise Local Authorities on the compilation of their Records of Protected Structures.



15.5.3.3 Development Plans

This Chapter of the EIAR considers the objectives set out in relevant development plans that relate to the cultural heritage resource. The Site is located within Counties Offaly and Kildare and, therefore, the *Offaly County Development Plan 2021-2027*¹³ and the *Kildare County Development Plan 2023-2029*¹⁴ are relevant to this assessment. The GCR also extends within County Laois and the *Laois County Development Plan 2021-2027* was, therefore, also consulted.

The Offaly County Development Plan 2021-2027 includes the following relevant objectives in relation to the protection of the cultural heritage resource within the county:

- BHP-33 It is Council policy to support and promote the protection and appropriate management and sympathetic enhancement of the county's archaeological heritage within the Plan area, in particular by implementing the Planning and Development Act 2000 (as amended) and the National Monuments Act 1930 (as amended).
- BHP-35 It is Council policy to consult with the National Monuments Service of the Department of Culture, Heritage and the Gaeltacht (DCHG) in relation to archaeological sites within and/or adjoining a proposed development.
- BHP-37 It is Council policy that any development that may, due to its size, location or nature, have implications for archaeological heritage (including both sites and areas of archaeological potential / significance) shall be subject to an archaeological assessment. When dealing with proposals for development that would impact upon archaeological sites and/or features, there will be presumption in favour of the 'preservation in situ' of archaeological remains and settings, in accordance with Government policy. Where permission for such proposals is granted, the Planning Authority will require the developer to have the site works supervised by a licenced archaeologist.
- BHP-40 It is Council policy to require archaeological assessment, including underwater archaeological assessment where relevant, for such developments that due to their location, size or nature may have implications for archaeological heritage. Such developments include those that are located at or close to an archaeological monument or site, those that are extensive in terms of area (0.5 hectares or more) or length (1 kilometre or more and developments that require an Environmental Impact Statement.)
- BHP-01 It is Council policy to ensure the protection, sympathetic and sensitive modification, alteration, extension or reuse of protected structures or parts of protected structures, and the immediate surrounds included and proposed for inclusion in the Record of Protected Structures that are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, together with the integrity of their character and setting.
- BHP-02 It is Council policy to ensure the protection of the curtilage of protected structures or proposed protected structures and to prohibit inappropriate development within the curtilage or attendant grounds of a protected structure which would adversely impact on the special character of the protected structure including cause loss of or damage to the special character of the protected structure and loss of or damage to, any structures of architectural heritage value within the curtilage of the protected structure.
- BHP-03 It is Council policy to promote best practice and the use of skilled specialist practitioners in the conservation of, and any works to, protected structures. Method statements should make reference to the Department of Culture, Heritage and the Gaeltacht's Advice Series on how best to repair and maintain historic buildings.

¹³ <https://www.offaly.ie/stage-4-final-plan/volume-i-written-statement/>

¹⁴ <https://kildarecoco.ie/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2023-2029/Volume1Chapters1-17/>



- BHP-04 It is Council policy to favourably consider the change of use of any structure included on the Record of Protected Structures provided such a change of use does not adversely impact on its intrinsic character and is in accordance with the proper planning and sustainable development of the area.
- BHP-05 It is Council policy to actively encourage uses that are compatible with the character of protected structures.
- BHP-07 It is Council policy to prohibit the demolition of any protected structure unless the Council is satisfied that exceptional circumstances exist. The demolition of a protected structure with the retention of its façade will likewise not generally be permitted.
- BHP-08 It is Council policy to require an Architectural Heritage Assessment Report, as described in Appendix B of the Architectural Heritage Protection, Guidelines for Planning Authorities, Department of Culture, Heritage and the Gaeltacht (2013), to accompany all applications involving a protected structure.

The Kildare County Development Plan 2023-2029 contains the following objectives in relation to the protection of the cultural heritage resource that are relevant to this assessment:

- AH P2 Protect and enhance archaeological sites, monuments and where appropriate and following detailed assessment, their setting, including those that are listed in the Record of Monuments and Places (RMP) or newly discovered archaeological sites and/or subsurface and underwater archaeological remains.
- AH O2 Manage development in a manner that protects and conserves the archaeological heritage of County Kildare, avoids adverse impacts on sites, monuments, features or objects of significant historical or archaeological interest and secures the preservation in-situ or by record of all sites and features of historical and archaeological interest, including underwater cultural heritage. The Council will favour preservation in – situ in accordance with the recommendation of the Framework and Principles for the Protection of Archaeological Heritage (1999) and the Council will seek and have regard to the advice and recommendations of the Department of Housing, Local Government and Heritage.
- AH O3 In co-operation with the National Monuments Service, Department of Housing, Local Government and Heritage require archaeological impact assessment, surveys, test excavation and/or monitoring and/or underwater archaeological impact assessments for planning applications in areas of archaeological importance and where a development proposal is likely to impact upon in-situ archaeological monuments, their setting and archaeological deposits, based on recommendations of a suitably qualified archaeologist and the Council will seek and have regard to the advice and recommendations of the Department of Housing, Local Government and Heritage.
- AH O4 Ensure that development in the vicinity of a site of archaeological interest is not detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing and to ensure that such proposed developments are subject to an archaeological assessment prepared by a suitably qualified archaeologist. Such an assessment will seek to ensure that the development can be sited and designed in such a way as to avoid impacting on archaeological heritage that is of significant interest including previously unknown sites, features, objects and areas of underwater archaeological heritage.
- AH O5 Require the preservation of the context, amenity, visual integrity and connection of the setting of archaeological monuments. As a general principle, views to and from archaeological monuments shall not be obscured by inappropriate development. Where appropriate, archaeological visual impact assessments will be required to demonstrate the continued preservation of an archaeological monument's setting and context.
- AH O6 Secure the preservation in-situ or by record of:



- the archaeological monuments included in the Record of Monuments and Places as established under section 12 of the National Monuments (Amendment) Act, 1994
- any sites and features of historical and archaeological interest including underwater cultural heritage and protected wrecks.
- any subsurface archaeological features including those underwater, that may be discovered during the course of infrastructural/development works in the operational area of the Plan. Preservation relates to archaeological sites or objects and their settings.
- AH O7 Contribute towards the protection and preservation of the archaeological value of underwater or archaeological sites associated with rivers and associated features.
- AH O8 Protect historic burial grounds that are recorded monuments and encourage their maintenance in accordance with best conservation principles in co-operation with the Historic Monuments Advisory Committee and the National Monuments Service, Department of Housing, Local Government and Heritage. Development may be restricted or conditions requiring substantial excavation may be imposed in and adjacent to former burial grounds.
- AH O9 Promote and support in partnership with the National Monuments Section of the Department of Housing, Local Government and Heritage (DHLGH), the concept of Archaeological Landscapes where areas contain several Recorded Monuments.
- AH O10 Require that all development proposals for industrial buildings and sites identified in Kildare Industrial Archaeology Survey (2007) or otherwise identified as being of industrial archaeological importance be accompanied by an industrial archaeology assessment of the surrounding environment. New development should be designed in sympathy with and to protect existing features and structures.
- AH O20 Conserve and protect buildings, structures and sites contained on the Record of Protected Structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest.
- AH O21 Protect the curtilage of protected structures or proposed protected structures and refuse planning permission for inappropriate development that would adversely impact on the setting, curtilage, or attendant grounds of a protected structure, cause loss of or damage to the special character of the protected structure and/or any structures of architectural heritage value within its curtilage. Any proposed development within the curtilage and/or attendant grounds must demonstrate that it is part of an overall strategy for the future conservation of the entire built heritage complex and contributes positively to that aim.
- AH O22 Refuse planning permission for the demolition of any protected structure unless the Council is satisfied that exceptional circumstances exist. The demolition of a protected structure with the retention of its façade will likewise not generally be permitted.
- AH O23 Require an Architectural Heritage Assessment Report, as described in Appendix B of the Architectural Heritage Protection, Guidelines for Planning Authorities (2011), to accompany all applications with potential for visual or physical impacts on a Protected Structure, its curtilage, demesne and setting. This report should be prepared by a person with conservation expertise that is appropriate to the significance of the historic building or site and the complexity of the proposed works.
- AH O31 Protect the designed landscapes associated with protected structures and retain important elements of the built heritage including historic gardens, stone walls, pathways, and avenues within the curtilage and attendant grounds of protected structures.



- AH O53 Ensure that an assessment of the existing buildings on site is undertaken through an analysis of historic maps and an appraisal of the historic fabric and features. Development proposals should retain and incorporate existing buildings of merit and any elements that contribute to their distinctive character.
- AH O55 Resist the demolition of built vernacular heritage, in particular thatched cottages and farmhouses, and to encourage their sensitive reuse having regard to the intrinsic character of the structure and the potential to prolong the life cycle of the embodied carbon contained within the structure.

A section of the GCR extends within County Laois and the *Laois County Development Plan 2021-2027* includes the following objectives in relation to the protection of the cultural heritage resource:

- AH1 Manage development in a manner that protects and conserves the integrity and character of archaeological heritage of the county which avoids adverse impacts on sites, monuments, settings, features or objects of significant historical or archaeological interest and secure the preservation in-situ or by record of all sites and features of historical and archaeological interest.
- AH3 Protect the intrinsic value, character, integrity and settings of monuments and places in the Record of Monuments and Places (RMPs) and any forthcoming statutory register and protect Zones of Archaeological Potential against inappropriate development.
- AH4 In areas of archaeological potential, where groundworks are proposed, ensure that all works are undertaken to the highest standard and the resultant information made publicly available. Developers will be required to have regard to Archaeology and Development: Guidelines for Good Practice for Developers (ICOMOS,2000) in planning and executing development in sensitive areas. The Council favours the preservation in-situ of archaeological remains, where areas of archaeological potential are located in town centres or villages, preservation of archaeological remains by record will be considered.
- AH10 Protect where appropriate industrial heritage structures or elements of significance identified in the Laois Industrial Archaeology Survey by adding them to the Record of Protected Structures during the lifetime of the Development Plan.
- PS 1 Consult with the Department of Environment, Heritage and Local Government in considering planning applications that may affect Protected Structures or Architectural Conservation Areas (ACA). The Council will have regard to comments made by the Department and relevant guidelines such as the Architectural Heritage Protection: Guidelines for Planning Authorities (DAHG, 2011) and other pertinent guidelines regarding energy ratings for Protected Structures.
- PS 2 Protect and conserve buildings, structures and sites contained in the Record of Protected Structures in accordance with 'Architectural Heritage Protection Guidelines for Planning Authorities' 2004 and ensure the effective promotion of the Architectural Heritage provisions of Planning and Development Act 2000 (as amended) and therefore the protection of Laois's built heritage, including Architectural Conservation Areas (ACAs) and Protected Structures.
- PS 3 Any development, modification, alteration, or extension affecting a Protected Structure must be prepared by suitably qualified persons and accompanied by appropriate documentation as outlined in the Architectural Heritage Protection Guidelines for Planning Authorities [DAHG, 2011] to enable a proper assessment of the proposed works and their impact on the structure or area and be carried out to best practice conservation standards. Its setting will be considered against the following criteria, and whether it is:
 - a) Sensitively sited and designed;
 - b) Compatible with the special character;
 - c) Views of principal elevations of the protected structures are not obscured or negatively impacted;



- d) Of a premium quality of design and appropriate in terms of the proposed scale, mass, height, density, layout, and material so that the integrity of the structure and its curtilage is preserved and enhanced. Where appropriate, the Protected Structure status is used as a stimulus to the imaginative and considered design of new elements.
- PS 5 Refuse planning permission for the demolition of any protected structure unless the Council is satisfied that exceptional circumstances exist. The demolition of a protected structure with the retention of its façade will likewise not generally be permitted.
- PS 6 Favourably consider the change of use of any structure included on the Record of Protected Structures provided such a change of use does not adversely impact on its intrinsic character. In certain cases, the Planning Authority may relax site zoning restrictions / development standards in order to secure the preservation and restoration of the structure.
- PS 7 Review and update the Record of Protected Structures on an on-going basis and to make additions and deletions as appropriate.

15.6 Evaluation Criteria

The following section provides a summary of the criteria used to assess effects in order to concisely outline the methodology specifically applied to the cultural heritage resource which complies with relevant EPA and ICOMOS guidelines (see Section 15.5.3).

The Duration of Effects is assessed based on the following criteria:

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

The Quality of Effect on the cultural heritage resource can be positive, neutral or negative:

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

The Types of Effect on the cultural heritage resource can be described as follows:

- Direct Effect – where a cultural heritage site is physically located within the footprint of the Project, which will result in its complete or partial removal;
- Indirect Effect – Effects on the cultural heritage environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway;



- Cumulative Effect -The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects;
- ‘Do-nothing Effects’ - The cultural heritage environment as it would be in the future should the Project not be carried out;
- ‘Worst-case’ Effects - The effects arising from a Project in the case where mitigation measures substantially fail;
- Indeterminable Effects - When the full consequences of a change in the environment cannot be described;
- Irreversible Effects - When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost; or
- Residual Effects - The degree of environmental change that will occur after the proposed mitigation measures have taken effect.

The Magnitude of Effect is based on the degree of change, incorporating any mitigation measures, on a cultural heritage asset and can be negative or positive. The magnitude is ranked without regard to the value of the asset according to the following scale: High; Medium; Low and Negligible and has been informed by criteria published in the ICOMOS (2011) *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (Table 15.1).

Table 15-1: Magnitudes of Effect on Cultural Heritage Assets (per ICOMOS 2011)

Magnitude	Description
High	Most or all key archaeological or architectural materials affected such that the resource is totally altered. Comprehensive changes to setting. Changes to most or all key historic landscape elements, parcels or components; extreme visual effects; fundamental changes to use or access; resulting in total change to historic landscape character unit Major changes to area that affect Intangible Cultural Heritage activities or associations or visual links and cultural appreciation
Medium	Changes to many key archaeological or historic building materials/elements such that the resource is clearly/significantly modified. Considerable changes to setting that affect the character of the archaeological asset. Changes to the setting of a historic building, such that it is significantly modified. Change to many key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, considerable changes to use or access, resulting in moderate changes to historic landscape character. Considerable changes to areas that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation.
Low	Changes to key archaeological materials/historic building elements, such that the resource is slightly altered/slightly different. Slight changes to setting of an archaeological monument. Changes to setting of a historic building, such that it is noticeably changed. Changes to few key historic landscape elements, parcels or components; slight visual changes to few key aspects of historic landscape; slight changes to use or access; resulting in limited change to historic landscape character.



Magnitude	Description
	Changes to an area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation.
Negligible	Very minor changes to key archaeological materials or setting. Slight changes to historic building elements or setting that hardly affect it. Very minor changes to key historic landscape elements, parcels or components; virtually unchanged visual effects; very slight changes to use or access; resulting in very small change to historic landscape character. Very minor changes to area that affect the Intangible Cultural Heritage activities or associations or visual links and cultural appreciation.

Value/Sensitivity Criteria: While various national and local authority legal designations exist for elements of the Irish cultural heritage resource (see Section 15.5.3), there is no formal criteria for grading the value of individual constraints. The evaluations used in this assessment have been informed by guidelines presented in the *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (ICOMOS 2011). The evaluation of the values of cultural heritage assets is, therefore, not intended as definitive but rather as an indicator which contributes to a wider judgment based on the individual circumstances of each asset. The application of values included a consideration of their legal designations (e.g., National Monuments in State Care), condition/preservation; documentary/historical significance, group value, rarity, visibility in the landscape, fragility/vulnerability and amenity value on a case-by-case basis. Archaeological sites which possess little, or no surface expressions may retain low-medium sensitivity to effects on their wider setting while levelled archaeological sites that retain no visible surface traces are typically not sensitive to any setting effects. It is noted that archaeological monuments, whether extant or levelled, have the potential to possess sub-surface attributes, including artefacts and other archaeological remains, which may possess values that cannot be discerned without recourse to archaeological excavation but are unlikely to be affected in the absence of direct negative effects. The values of known or potential cultural heritage assets are ranked according to the following scale as defined by ICOMOS: Very High; High; Medium; Low, Negligible and Unknown (Table 15.2). The values/sensitivities assigned to identified constraints within the study area were determined following the completion of desktop research and site inspections and are outlined in Section 15.8.

Table 15-2: Indicative factors for assessing the Value of Cultural Heritage Assets (per ICOMOS 2011)

Indicative Value/Sensitivity Level	Description
Very High	World Heritage Sites (including Tentative List properties) Sites, buildings or landscapes of acknowledged international importance Intangible associations with individuals or innovations of global significance
High	Nationally designated sites, buildings and landscapes of significant quality, rarity, preservation and importance Undesignated assets of the quality and importance to be designated Assets that can contribute significantly to acknowledged national research objectives Archaeological Landscapes with significant group value Intangible associations with individuals or innovations of national significance



Indicative Value/Sensitivity Level	Description
Medium	Designated or undesignated assets that can contribute significantly to regional research objectives, including buildings that can be shown to have exceptional qualities in their fabric or historical associations. Conservation Areas and historic townscapes containing buildings that contribute significantly to its historic character. Intangible associations with individuals or innovations of regional significance
Low	Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives. Historic Townscape or built-up areas of limited historic integrity in their buildings and settings Intangible associations with individuals or innovations of local significance
Negligible	Assets with very little or no surviving archaeological interest Landscapes little or no significant historical interest Buildings or urban areas of no architectural or historical note; buildings of an intrusive character
Unknown Potential	Assets whose importance has not been ascertained. Buildings with some hidden (i.e. inaccessible) potential for historic significance

The Significance of Effect can be described as Profound, Very Significant, Significant, Moderate, Slight, Not Significant or Imperceptible (Table 15.3) and is assigned based on the combined evaluation of effect magnitude and the sensitivity/value of the cultural heritage asset (Table 15.4).

Table 15-3: Significance of Effects (per EPA EIAR Guidelines 2022)

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



Table 15-4: Significance of Effects Matrix (after EPA EIAR Guidelines 2022)

Magnitude of Effect	High	Not Significant/ Slight	Moderate/ Significant	Significant/ Significant	Very	Very Significant/ Profound
	Medium	Not Significant	Slight	Moderate/ Significant	Significant/ significant	Very
	Low	Not Significant/ Imperceptible	Slight/ Significant	Not	Slight	Moderate
	Negligible	Imperceptible	Not Significant/ Imperceptible	Not Significant/ Slight	Slight	Slight
		Negligible	Low	Medium		High/Very High
Value/Sensitivity of the Asset						

15.7 Existing Environment

15.7.1 Desktop Study

The following sections present summary details of the main periods within the Irish archaeological record with references to known archaeological sites, designated architectural heritage structures (RPS and NIAH) and identified undesignated cultural heritage assets located within the reviewed study areas around the Site (Section 15.7.1.1), the GCR (Section 15.7.1.2) and TDR work areas (Section 15.7.1.3). The sub-sections presented below provide summary overviews of the main periods of the Irish archaeological record with references to associated recorded sites located within the reviewed study areas, included inventory descriptions published by the ASI. The dating framework used for each of the archaeological periods is based on the *Guidelines for Authors of Reports on Archaeological Excavations* as published by the National Monuments Service¹⁵. Datasets have been interrogated and retrieved from current state and local authority sources and are considered accurate at the time of writing in September 2025.

¹⁵ <https://www.archaeology.ie/sites/default/files/media/publications/excavation-reports-guidelines-for-authors.pdf>



15.7.1.1 The Wind Farm Site

15.7.1.1.1 Recorded Archaeological Sites within 2km of the Site

There are fifteen recorded archaeological sites located within the 2km study area around the Site (Table 15.5 and Appendix 15.1; Figure 15.1). The archaeological sites within the study area that are located within third-party properties were not accessible during the compilation of this assessment. A review of available Archaeological Survey of Ireland (ASI) inventory descriptions, which are available for review on the NMS Historic Environment Viewer¹⁶, was therefore carried out in combination with reviews of historic Ordnance Survey maps as well as aerial/satellite images of their locations as published by Tailte Éireann, Google Earth and Bing Maps. This review revealed that the ASI have recorded that all of the archaeological sites within the 2km study area are levelled, and none retain visible surface traces (Table 15.5). None of the recorded archaeological sites within the 2km study area are designated as National Monuments in State Care or are subject to Preservation Orders, but all are protected under the National Monuments Act 1930 (as amended).

¹⁶ <https://heritagedata.maps.arcgis.com/apps/webappviewer/index.html?id=0c9eb9575b544081b0d296436d8f60f8>



Table 15-5: Recorded Archaeological Sites within 2km of the site

Monument No.	Classification	Townland	Distance from Site	ASI Inventory Description
KD021-009----	Enclosure	DERRYLEA	130m south	Visible on an aerial photograph (GSI N 413-4) as the cropmark of a possible oval enclosure. In reclaimed pasture at the E-edge of Derrylea Bog. The cropmark was not visible at ground level in 1986 (SMR file)
KD021-010----	Enclosure	DERRYLEA	890m southeast	Visible on an aerial photograph (GSI N 413-4) as the cropmark of a possible circular enclosure. In reclaimed pasture, formerly liable to flooding, between Derrylea Bog to the W and the S-flowing Black River to the E. Not visible at ground level
KD021-008001- to KD021-008005- (inclusive)	Enclosures (5 no.)	DERRYLEA	700m to 900m south	Five possible small enclosures visible as cropmarks on an aerial photograph (GSI N 413-4). The closely associated features occupy a roughly rectangular area (dims. L c. 270m E-W; Wth c. 150m N-S), of improved pastureland formerly liable to flooding, near the confluence of the S-flowing Black River (to their E) with a small, E-flowing tributary (to their S) which follows the old course of the River Barrow. Field boundaries immediately to the S, indicated on the latest ed. (1939) of the OS 6-inch map, have been removed. There is no visible surface trace of the features.
KD021-001002-	Ecclesiastical enclosure	CLOGHEEN	1,790m southeast	Visible on a 1971 aerial photograph (CUCAP BGH 46) as the faint cropmark of fairly narrow fosse defining a large circular area (est. diam. c. 120m) occupying the upper portion of the W end of a pasture ridge just above the flood plain at a meander in the Black River, a tributary of the Barrow, which flows around the site N-W-S. The cropmark was not visible at ground level in 1986 (SMR file), or on the present visit. A church site (KD021-001003----) and a graveyard (KD021-001004----) lie at the centre of the enclosure; all suggesting the existence of an early ecclesiastical site here (KD021-001005-).



Monument No.	Classification	Townland	Distance from Site	ASI Inventory Description
KD021-001003-	Church	CLOGHEEN	1,790m southeast	On a possible early ecclesiastical site (KD021-001005-) near the centre of a possible ecclesiastical enclosure (KD021-001002-) and shown just SE of a graveyard (KD021-001004-) on the latest ed. (1939) of the OS 6-inch map. No visible surface trace of the church survived in 1986 (SMR file).
KD021-001004-	Graveyard	CLOGHEEN	1,790m southeast	On a possible early ecclesiastical site (KD021-001005-) near the centre of a possible ecclesiastical enclosure (KD021-001002-) and shown just NW of a church site (KD021-001003-) on the latest ed. (1939) of the OS 6-inch map. A sub-circular area (diam. c. 50m E-W; c. 41m N-S) is enclosed by a low earthen bank (H 0.6m; Wth 3m) faced externally with drystone walling, and planted with trees. The well-maintained interior rises towards the N. Headstones date from the 18th century, the earliest noted dating to 1736, and the graveyard is still in use.
KD021-001005-	Ecclesiastical site	CLOGHEEN	1,790m southeast	According to the Countess of Drogheda (1902-3, 235), '... the old Yew Tree Cemetery (was) where there was once a branch of St. Evin's Monastery (KD026-001----), and here was kept for long afterwards St. Evin's bell as a swearing relic.' The surviving remains comprise Yew Tree Graveyard (KD021-001004-), a possible ecclesiastical enclosure (KD021-001002-) and a church site (KD021-001003-).



Monument No.	Classification	Townland	Distance from Site	ASI Inventory Description
OF027-010001-	Enclosure	BRACKNAGH	1,590m northeast	Enclosure (diam. c. 38m) formerly defined by a bank (ITA Survey 1942) and showing on aerial photo (CUCAP, BDU 15) but no longer visible since area is covered with modern grave plots. Marked as graveyard (OF027-010002-) on first ed. OS 6-inch map and depicted as a circular enclosure. Comerford (1883, 135) casts doubt on the antiquity of this graveyard and there appears never to have been a church (OF027-010003-) here. This enclosure is no longer visible and the graveyard is now enclosed by a modern wall.
OF027-010002-	Graveyard	BRACKNAGH	1,590m northeast	Enclosure (OF027-010001-) formerly defined by a bank (ITA Survey 1942) and showing on aerial photo (CUCAP, BDU 15) but no longer visible since area is covered with modern grave plots. Marked as graveyard on first ed. OS 6-inch map and depicted as a circular enclosure. Comerford (1883, 135) casts doubt on the antiquity of this graveyard and there appears never to have been a church (OF027-010003-) here. According to a local farmer who described the site as being a Rath for burying unbaptised children. The site was located in a field behind Bracknagh Church (OF027-011----). No surface evidence of this site remains probably due to land improvement in the area.
OF027-010003-	Church	BRACKNAGH	1,590m northeast	No surface trace visible of any church or architectural fragment which Davies (1942) recorded as a door jamb. Graveyard (OF027-010002-) was formerly enclosed by an earthen bank which appears on aerial photographs as an enclosure (OF027-010001-). This enclosure is no longer visible, and the graveyard is now enclosed by a modern wall. According to Comerford (1883, 135) there was no church ever located at this site. Marked graveyard on first edition of the ordnance survey 6-inch map but no church is shown.



Monument No.	Classification	Townland	Distance from Site	ASI Inventory Description
OF034-003----	Enclosure	TRASCAN	1,900m south	Not visible at ground level. Potential enclosure identified as a cropmark from aerial photographs (GSI N 412/3; Air Corps 645/46).



Prehistoric Periods

Until the recent identification of potential Palaeolithic human butchery marks on faunal remains recovered from cave locations, the earliest recorded evidence for human activity in Ireland dated to the Mesolithic period (7000–4000 BC) when groups of hunter-gatherers lived on the heavily wooded island. The archaeological record indicates that these mobile groups tended to favour coastal, lake and river shores locations which provided a transport resource and also provided elements of their varied diet. They did not construct any monuments that have left any above ground traces although their presence in an area can often be identified by scatters of worked flints in ploughed fields. The Neolithic period (4000–2400 BC) began with the arrival of agriculture and its establishment as the principal form of economic subsistence, which resulted in more permanent settlement patterns. As a consequence of the more settled nature of agrarian life, new site-types, such as megalithic tombs, substantial rectangular timber houses and field systems, begin to appear in the archaeological record during this period. Metalworking arrived in Ireland with the advent of the Bronze Age period (c. 2400–500 BC). This new technology introduced a new artefactual assemblage into the Irish archaeological record and the period was also associated with the construction of new monument types such as standing stones, stone rows, stone circles and fulachta fia. The development of new burial practices meant that the construction of funerary monuments such as wedge tombs, cairns, barrows, boulder burials and cists was a common practice during this period. The arrival of iron-working technology in Ireland saw the advent of the Iron Age (600 BC – 400 AD). Relatively little was known about Iron Age settlement and ritual activity until recent decades when the corpus of evidence has been greatly increased by the discovery of sites dating to this period during archaeological investigations carried out as part of development projects. It is noted that while the vast majority of all prehistoric settlement sites leave no above ground remains their foundations and occupation deposits, which may contain artefactual and environmental remains, can often survive below modern ground surfaces. There are no recorded prehistoric sites located within the 2km study area around the Site. A review of an online National Museum of Ireland (NMI) database¹⁷ revealed that it records the discovery of two prehistoric objects within the surrounding 2km study area. These comprise a stone axehead and a bann flake (NMI ref. 1932:6151) which were discovered in an area of Clogheen townland located c.1.8km southeast of the Site.

The landscape extending for 10km in all directions from the Site was also reviewed to ascertain if it contains any recorded prehistoric archaeological monuments with potential ritual visual alignment attributes such as megalithic tombs, stone circles, stone rows and standing stone pairs. This revealed that no such monuments are located within 10km of the Site.

¹⁷ <https://heritagemaps.ie/WebApps/HeritageMaps/index.html>



Medieval Periods

The Irish early medieval period (c.400–1169 AD) broadly commenced with the arrival of Christianity and continued until the arrival of the Anglo-Normans during the 12th century. While the later stages of this period saw the emergence of the first phases of urbanisation around the Hiberno-Norse ports, the dominant settlement pattern continued to be rural-based. The most common early medieval archaeological site type within the Irish landscape are ringforts which comprise circular enclosures delimited by earthen banks formed of material thrown up from a concentric external ditch while stone-built variants known as cashels are also common within western counties. The ubiquity of these enclosures within the Irish landscape is attested to by the fact that their original Gaelic names (rath, lios and dun) still form some of the most common place-name elements in the country. Archaeological excavations have demonstrated that the majority comprised enclosed farmsteads containing the foundations of domestic and agricultural buildings. There are nine recorded levelled enclosure sites located within the 2km study area and, while sites assigned this classification can theoretically date from any period from prehistory onwards, many may form the remains of unclassified ringforts, but this cannot be conclusively proved without recourse to archaeological excavation. The early medieval church sites were often morphologically similar to ringforts but are often differentiated by the presence of features such as church buildings, holy wells, graves, stone crosses and shrines. The 2km study area contains two recorded ecclesiastical sites, each with an associated church, enclosure and burial ground, and both of these are levelled with no visible surface traces. These ecclesiastical sites may have originated in the early medieval period but give the absence of any surface remains this cannot be ascertained without recourse to archaeological excavation.

The arrival of the Anglo-Normans in the late 12th century broadly marks the advent of the Irish high medieval period which continued to c.1400 and was followed by the late medieval period which extended to c.1550. These periods saw the continuing expansion of Irish urbanisation as many of the port cities developed into international trading centres and numerous villages and towns began to develop throughout the country, often within the environs of Anglo-Norman manorial centres which were defended by masonry castles. By the 15th century the native Irish chieftains and lords began to construct tower-house castles within their own landholdings as centres of territorial control. The centuries following 1550 AD comprise the post-medieval period which continued into the middle of the 19th century with the following period extending into the 20th century often described as early modern. As the post-medieval period progressed, high and low status stone houses began to replace simpler cabins throughout the Irish countryside and many farmsteads at this time typically consisted of single-storey cottages with associated outbuildings while two-storey farmhouses became more common during the 19th century. The late 18th and early 19th centuries saw extensive land improvement works throughout much of the Irish landscape including widespread land drainage works and the enclosure of open lands into field systems that survive to the present-day. The cultivation of potatoes became widespread during this period and its failure in the 19th century resulted in the Famine period which saw the depopulation of many rural areas. The period after the Famine saw an increasing move away from small-scale subsistence farming towards more market-led pasture, assisted by the development of the Co-Op system, which also increased the extent of land reclamation of previously marginal lands. There are no recorded high, late or post-medieval archaeological sites located within the 2km study area. Further details on the layout of the lands within the Site during the 19th century are provided in the review of historic cartographic sources (Section 15.7.1.1.4).

A review of the landscape extending for 10 km in all directions from the Site revealed it contains no recorded early, late or post-medieval sites that possess ritual alignments extending across the wider landscape. There are also no National Monuments in State Care dating to these periods located within 10km of the Site. Details on three monuments dating to these periods, which have been assigned Preservation Orders, within 10km of the Site are provided in Section 15.7.1.1.2.



15.7.1.1.2 National Monuments and Preservation Order Sites within 10km of the Site

There are no National Monuments in State Care located within 10km of the Proposed Development. There are three archaeological sites located within 10km of the Site which are subject to Preservation Orders under the National Monuments Act 1930 (as amended) (Table 15.6 and Appendix 15.1; Figure 15.2). These comprise two early medieval ringforts and a burial ground of potential medieval date. As detailed in Table 15.6, these Preservation Order sites are located at distances of 3km-7.9km from the Site and they do not comprise monument types that possess ritual alignments that extend across the wider landscape.



Table 15-6: Preservation Order (PO) sites within 10km of the site

PO Ref	Classification	SMR/RMP ref.	Townland	Distance from the Site	Summary of ASI Inventory Description
16/1956	Ringfort	KD022-014----	Lackagh Beg	c.6.7km to SE	Near the top of a short, gentle, NE-facing slope in mixed pasture and tillage. A sub-circular area (int. diam. 20.8m E-W; 17.5m N-S) is defined by a low, broad, inner earthen bank (int. H 0.2-0.5m; Wth 3.7m at W-7.9m at E; ext. H 0.4-1.4m) E-S-N, which is reduced to a low scarp elsewhere, by a shallow fosse (D 0.5m; Wth 3m) E-S-N, which has been infilled N-E, and by a second, broad outer bank (Wth 8m; ext H 1.9m) ESE-NW. A possible original entrance gap (Wth 2.5m) in the inner bank at WNW has a corresponding causeway across the fosse outside, but no corresponding gap in the outer bank, which may be explained by the outer bank's reuse as a townland boundary with Mountrice. The surviving banks are overgrown with hazel, some of which appears coppiced, and, together with the fosse and interior, are heavily poached by livestock.
10/1970	Ringfort	KD017-011001-	Rathangan	c.7.9km to NE	The royal Fort of Rathangan was described in one of the earliest Irish poems as the burial place of the kings of the local clan. This bivallate royal ringfort is located at the W end of the village on high ground with good views in all directions. Present remains consist of a fairly well-preserved, roughly circular, raised area (int. diam. 58m) enclosed by a broad, inner, earthen bank (Wth 9m; int H 1.7m; ext H 5m) best preserved along the N and E, denuded along the W and reduced to a scarp at SW, and by a U-shaped fosse (Wth 4m; D 2m). An entrance gap (Wth 3m) in the bank has a corresponding causeway (Wth 5.2m) across the fosse at SE. Mature oaks grow on the bank E-S-W, and both the outer faces of the bank and fosse are overgrown with briar and nettle. Two ESB poles stand on the outer face of the fosse, at N and SE. I



PO Ref	Classification	SMR/RMP ref.	Townland	Distance from the Site	Summary of ASI Inventory Description
5/2000	Burial ground	OF034-008001-	Derryvilla	c.3km SW	In 1997 quarrying operations at Derryvilla unearthed human remains which after examination was revealed to belong to a large unrecorded burial ground. This burial round was situated on top of a hill with good views in all directions. An archaeological evaluation of this burial ground was undertaken in July 1998. A total of 22 test trenches were opened on the west and northwest side of the hilltop. In total burials, either disturbed or in situ, were found in 11 of these test trenches. A ditch feature revealed two of the trenches most likely represents the boundary of the burial ground. The excavator interpreted the burial as medieval in date.



15.7.1.1.3 Database of Irish Excavation Reports

As detailed in Section 15.3, a review of this online database for lands within the Site and the surrounding 2km study area was carried out to ascertain if any previously unrecorded archaeological sites have been identified within its environs. This revealed that it contains no entries for archaeological site investigations within the boundary of the Site. The Database does contain one entry describing the results of a site investigation within the surrounding 2km study area and this comprised a programme of archaeological monitoring of a development in Clogheen townland¹⁸. Nothing of archaeological significance was identified at the location.

15.7.1.1.4 Review of Cartographic Sources and Aerial/Satellite Imagery

A review of the depiction of lands within the Site on the 1st edition 6-inch Ordnance Survey (OS) map, published in 1839, and the 25-inch OS map, published in 1912, was carried out in order to ascertain if any unrecorded cultural heritage constraints are depicted at any proposed development areas (Appendix 15.1; Figures 15.3 and 15.4). Both editions of the historic OS maps show the Cushina River extending through the Site boundary, which also marks the county boundary between Offaly to the north and Kildare to the south. The maps depict a mixture of vacant bogland and enclosed farm fields within the boundary of the Site and no potential unrecorded archaeological sites or other features of cultural heritage significance, such as vernacular buildings or field divisions forming townland boundaries, were identified within the footprint of development areas. The townland boundaries shown within the Site on the 1st edition 6-inch map are generally shown extending through areas of vacant bogland with no topographical features visible. Both maps show a residence named as 'Cushina House' in an area to the south of the west end of the Site and this contains a depicted area of demesne land extending to the west, east and north of the house. The location of the house is now occupied by a modern bungalow within a concrete surfaced farmyard. The nearest proposed development area within the Site to this property is a section of a proposed site access track located c.610m to the north of the former location of the house and c.330m to the north of the nearest section of its associated lands.

A review of online aerial/satellite imagery (Google Earth, Bing Maps and Tailte Éireann) of lands within the Site boundary, was carried in order to ascertain if any traces of undesignated cultural heritage features, including sub-surface archaeological sites, were visible within the environs of proposed development areas. This revealed that the general landscape character of the lands has remained broadly unchanged since the publication of the 25-inch OS map at the start of the 20th century, with areas of open bogland and enclosed fields still present. The main modern intervention within the environs of the Site comprise areas of modern forestry planted within sections of the open bogland shown on the historic OS maps. The review of the aerial/satellite imagery did not identify any potential unrecorded archaeological sites or other cultural heritage constraints within the environs of any proposed development areas within the Site. A summary of the depiction of each of the turbines, and associated infrastructure, on the historic OS maps and aerial/satellite imagery is provided in Table 15.10 (Section 15.7.2).

¹⁸ <https://excavations.ie/report/2017/Kildare/0026133/>



15.7.1.1.5 Architectural Heritage

As detailed in Section 15.3, a review was carried out to determine if any protected structures and structures/lands listed in the NIAH are located within the Site or in the surrounding 2km study area. There are no Protected Structures or buildings listed in the National Inventory of Architectural Heritage (NIAH) located within the Site boundary and there are no Architectural Conservation Areas within the 2km study area. There are three buildings listed in the current Co. Offaly Record of Protected Structures located within the surrounding 2km study area, two of which are also included in the NIAH, which assigns them a regional rating (Table 15.7 and Appendix 15.1; Figure 15.1). The current Kilkenny Record of Protected Structures does not list any buildings located within the 2km study area.

Table 15-7: Designated Architectural Heritage Structures within 2km of Site

Protected Structure No.	NIAH No.	Name	Townland	Summary Details	Distance from Site
37-05	14927006	The Old Schoolhouse	Bracknagh	Detached six-bay two-storey national school in Bracknagh village, built in 1843	1,500m north
37-04	14927005	Saint Brochan's Catholic Church	Bracknagh	Detached gable-fronted single-cell Roman Catholic church in Bracknagh village, built in 1845	1,630m north
36-06	n/a	The Spinning Wheel	Clonsast Lower	Five-bay single-storey thatched house with rendered clay walls. In use as private residence	850m north

The 2km study area also contains two properties listed in the NIAH Historic Gardens and Designed Landscapes Survey. One of these entries relates to lands associated with the former location of Cushina House and, as described in Section 15.7.1.1.4, these lands are located c.330m to the south of the nearest development area within the Site. The NIAH record for this property (NIAH Garden no. 5448) notes that it does not retain any architectural heritage buildings and that the associated lands do not contain designed landscape features such as avenues, gardens or parklands.¹⁹ The other property within the 2km study area comprises lands associated with the former location of Derry Lea house (NIAH Garden no. 1934) which are located c.630m to the south of the nearest proposed development area within the Site. The NIAH record for this property notes that modern buildings have been constructed within the core landscape and the lands do not contain any designed landscape features.²⁰

15.7.1.1.6 Undesignated Cultural Heritage Assets

While encompassing the archaeological and designated architectural heritage resources, cultural heritage also includes various undesignated assets such as demesne lands, vernacular structures, folklore, place names and historical events. As previously noted in the review of historic cartographical sources (Section 15.7.1.1.4), there are no demesne lands or vernacular structures located within proposed development areas within the Site.

¹⁹ <https://www.buildingsofireland.ie/buildings-search/site/5448/cushina-house-clonsast-co-offaly>

²⁰ <https://www.buildingsofireland.ie/buildings-search/site/1934/derry-lea-house-lackagh-co-kildare>



The Site extends into a number of townlands which are the smallest unit of land division in the Irish landscape, and many may preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest (Table 15.8). The names of Irish townlands were recorded and standardised by the Ordnance Survey (OS) in the 19th century and typically entailed anglicisations of their original Gaelic names. The origins of townland names often refer to natural topographical features, past landowners, farming practices, etc. but some name elements may also give an indication of the presence of archaeological sites within the townland, e.g., lios or rath indicate the presence of a ringfort while temple, saggart, termon or kill may record associations with a church site. The available translations of the townland names within the Site presented in Table 15.8 were sourced from the Placenames Database (www.logainm.ie).

Table 15-8: Translation of Townland Names

Townland Name	Gaelic Origin	Translation	Archaeological Indicator?
Clonsast Lower	Cluain Sosta	meadow of rest	No
Chevychase or Derrynadarragh	Doire na Darach	Oak wood	No
Cushina	Cois Eidhní	beside the ivy-river	No
Aughrim	Eachroim	horse-hill	No
Derrylea	Doire Léith	grey wood	No

A review of the Schools Collection of the Irish National Folklore Collection (www.duchas.ie) revealed it contains a number of entries associated with townlands that contain sections of lands extending into the Site. This includes a story transcribed in the 1930s recounting that the Danes built a very big round house in Cushina townland during the 10th century and that it is now owned by a farmer.²¹ The potential exists that this story may refer to a ringfort as these can often be referred to as Dane's forts in local traditions. The collection also includes another 1930s story which also refers to a rath (ringfort) within Cushina townland.²² There are two townlands named Cushina located in the area and neither contains a recorded ringfort and no extant features indicating the presence of an unrecorded example are depicted in either townland on the historic OS maps. The collection also contains stories relating to land rents and evictions in Clonsast Lower townland.²³

²¹ <https://www.duchas.ie/en/cbes/5044567/5022976/5142711?HighlightText=cushina&Route=stories&SearchLanguage=ga>

²² <https://www.duchas.ie/en/cbes/5044567/5022995/5142765?HighlightText=cushina&Route=stories&SearchLanguage=ga>

²³ <https://www.duchas.ie/en/cbes/transcripts?SearchText=Clonsast+Lower&SearchLanguage=ga&Page=1&PerPage=20>



15.7.1.2 Grid Connection Route

The grid connect route will comprise an underground cable which will primarily be located within public roads and will include horizontal directional drilling at watercourse crossings. The Record of Protected Structures included in the *Laois County Development Plan 2021 – 2027* lists three road bridges that are located within a 100m wide corridor centred on the grid connection route. These include two road bridges on public roads that the route follows, and these comprise Baylough Bridge (RPS 827), which is a triple-arch masonry bridge over the River Barrow in Inchacooly townland, and Bergin's Bridge (RPS 826), which is an arched masonry road bridge over the Mountmellick Branch of the Grand Canal in Loughmansland Glebe townland (Appendix 15.1; Figure 15.5). The proposed crossing methodology at the location of these bridges will comprise horizontal directional drilling. The third Protected Structure within the 100m corridor centred on the route comprises Wheelahan's Bridge (RPS 547) in Clonanny townland which was constructed in c.1830 to cross a section of the Mountmellick Canal. This bridge is also listed by the NIAH (ref. 12800551) and is located c.50m to the south of the grid connection route.

The current Record of Protected Structures for Counties Kildare and Offaly do not list any examples located within the 100m wide corridor centred on the grid connection route. There are no recorded archaeological sites located within the 100m wide corridor centred on the grid connection route.

Table 15-9: Recorded Architectural Heritage Constraints within environs of grid connection route

Constraint Ref.	Name/Class	Townland	Distance from Route
RPS 827	Baylough Bridge	Inchacooly	Adjacent
RPS 826	Bergin's Bridge	Loughmansland Glebe	Adjacent
RPS 547	Wheelahan's Bridge	Clonanny	50m to south

The sections of roads along the north end of grid connection route, in the townlands of Cushina, Aughrim and part of Derrylea, are not present on the historic OS maps and are, therefore, of 20th century date. The lands in which these sections of modern roads were constructed are shown as a combination of vacant fields and areas of open bogland on the historic OS maps and no sites or features of potential cultural heritage interest are depicted along this section of the grid connection route. The remainder of the roads along the grid connection are depicted on the first edition 6-inch OS map (1839) and are shown to follow their existing routes.

As detailed above, one of the Protected Structures (Bergin's Bridge, RPS 826) within the grid connection study area comprises a road bridge constructed over a section of the Mountmellick Branch of the Grand Canal which is depicted on the first edition 6-inch OS map (1839). The Grand Canal Company began construction of this canal in 1827, which extended from the Athy Branch of the Grand Canal at Monasterevin to Mountmellick, and it was opened in 1831.²⁴ As was the case with other Irish canals the use of the Mountmellick Branch began to decline as the 19th century progressed due to increased competition with expanding railway networks. Further decline occurred in the 20th century due to motorised road transport and the canal branch finally closed in 1960. Sections of the canal then reverted to private ownership and much of the Mountmellick Branch has become silted in or reclaimed as agricultural land. The grid connection route will cross the silted in and overgrown sections of the canal via horizontal directional drilling at Bergin's Bridge and also across a modern bridge located immediately to the south of the substation in Bracklone townland.

²⁴ <https://laois.ie/sites/default/files/2024-10/Mountmellick-Canal-Laois.pdf>



15.7.1.3 Turbine Delivery Work Areas

The majority of the turbine delivery route (TDR) will entail the use of the existing road network to facilitate deliveries to the Site. However, the route will require two sections of offline TDR work areas which will require tracks to be constructed within green field areas (TDR refs 29/30 and 35/36).

TDR ref 29/30 is located at the junction of the R400 and R402 roads in the townland of Esker Beg, Co. Offaly and will entail a new section of track, c.250m in length, extending through a green field area to the southwest of this junction. This will also include a clear span bridge crossing over a section of the Philipstown River which extends east to west through the fields. A review of this location revealed that there are no recorded cultural constraints located within a 100m study area surrounding the proposed TDR works. The 1st edition 6-inch OS map (1840) and 25-inch edition OS map (1912) of this area show the route of the proposed access track extending through an area of vacant fields and no potential features of cultural heritage interest are depicted within its environs. In addition, no riverine features, such as weirs or fords, are depicted on the OS maps at the location of the proposed crossing point over the river channel. A review of modern aerial/satellite imagery of the location of the proposed track did not reveal any traces of potential unrecorded archaeological sites. A review of modern aerial/satellite imagery of the location of the proposed track did not reveal any traces of potential unrecorded archaeological sites.

TDR ref 35/36 is located within the townland of Enaghan, Co. Offaly and TDR works at this location will entail the construction of a new section of track, c.150m in length, within a green field on the south side of the R400 road. A review of this location revealed that there are no recorded cultural constraints located within a 100m study area surrounding the proposed TDR works. The 1st edition 6-inch OS map (1840) and 25-inch edition OS map (1912) of this area show the route of the proposed access track extending through a vacant field and no potential features of cultural heritage interest are depicted within its environs. A review of modern aerial/satellite imagery of the location of the proposed track did not reveal any traces of potential unrecorded archaeological sites.

15.7.2 Field Surveys

The location of the Proposed Development was inspected by the specialist in January 2025 in clear weather conditions that allowed good landscape visibility. In general, the topography within the Site is relatively level with localised areas of natural undulation and current land use comprises a combination of areas of reclaimed pasture farmland and cutaway bogland. Details on the existing environment at the locations of Proposed Development areas are presented in Table 15.10. This table includes the distances of turbines and other infrastructure within the Site to the nearest cultural heritage constraints and also collates summaries of development locations as shown on modern aerial/satellite images and the 1st edition 6-inch (1839) and 25-inch edition (1912) OS maps (Appendix 15.1; Figures 15.3 and 15.4).



Table 15-10: Description of field survey of development areas with references to desktop sources

Project Element	Nearest cultural heritage constraint	Historic OS Maps	Aerial/Satellite images	Description
Turbine 1	Enclosure KD021-009---- is located c.130m to the south of the turbine. This levelled site was identified by the ASI as a cropmark visible on an aerial image. No surface traces were identified during an inspection of its location	Shown within vacant bogland on 1839 OS map and within a reclaimed field on 1912 OS map	No potential unrecorded archaeological sites noted at location	The proposed turbine, hardstand and site access track to the location are within a level area of improved pasture which was under low grass at the time of inspection. No surface traces of any potential cultural heritage features were identified during an inspection of the location. An inspection of Enclosure KD021-009---- within an area of the field to the south revealed that no surface traces of this site were evident.
Turbine 2	A Protected Structure (Offaly RPS ref 36-06), which comprises a thatched house in a private property, is located 1,210m northwest of the turbine.	Shown within vacant bogland on 1839 OS map and within an area of marginal reclaimed fields on 1912 OS map	Shown as an area of marginal land at the north end of bog on imagery between 1995 to 2005 and no potential unrecorded archaeological sites noted at location. An existing commercial forestry plantation is shown at the location on imagery from 2009 onward.	The proposed turbine and hardstand locations are within a modern forestry plantation containing closely set trees. The site access track to the location from the east extends through an area of bog that has been in recent use as a peat milling site No surface traces of any potential cultural heritage features were identified during an inspection of the location
Turbine 3	A Protected Structure (Offaly RPS ref 37-05), which comprises a school building, is located 1,600m to the north	Shown as a vacant field on both editions of the OS maps	No potential unrecorded archaeological sites noted at location	The proposed turbine and hardstand location is within a level pasture field under low grass growth while the site access road from the southwest extends through an area of marginal land under sparse grass growth. The access track will cross a section of the townland boundary between Cushina and Chevychase or Derrynadarragh. This boundary currently comprises a deep machine excavated land drain and does not retain any historic field divisions.



Project Element	Nearest cultural heritage constraint	Historic OS Maps	Aerial/Satellite images	Description
				No surface traces of any potential cultural heritage features were identified during an inspection of the location
Turbine 4	Enclosure KD021-009---- is located c.500m to the southeast of the turbine	Shown within enclosed fields at east edge of an area of bog. A few small farm buildings are shown within adjacent fields on both editions of the historic OS maps.	No potential unrecorded archaeological sites noted at location. The small farm buildings depicted in nearby fields on the historic OS maps are not visible.	The proposed turbine and hardstand location is within a level pasture field under low grass and gorse growth. The section of the site access track to the northwest extends through a marginal field with weed and gorse growth. There were no surface traces of the small farm buildings shown within adjacent fields on the historic OS maps. No surface traces of any other potential cultural heritage features were identified during an inspection of the location
Turbine 5	Enclosure KD021-009---- is located c.1,450m to the southeast of the turbine	Shown within a vacant field at south edge of an area of bog.	No potential unrecorded archaeological sites noted at location	The proposed turbine and hardstand location is within a level pasture field under low grass growth. The sections of the site access track to the east and west also extend through pasture fields. No surface traces of any potential cultural heritage features were identified during an inspection of the location
Turbine 6	Enclosure KD021-009---- is located c.1,800m to the southeast of the turbine	Shown as a vacant field on both editions of the OS maps	No potential unrecorded archaeological sites noted at location	The proposed turbine and hardstand location is within a level pasture field under low grass growth. No surface traces of any potential constraints were identified during an inspection of this location. The site access track extending to the north will include a clear span bridge crossing over a section of the Cushina River. An inspection of this crossing point revealed that the river appears to have been subject to dredging and/or clearance works. No surface traces of any potential cultural heritage features were identified during an inspection of lands adjacent to both banks.



Project Element	Nearest cultural heritage constraint	Historic OS Maps	Aerial/Satellite images	Description
Turbine 7	Enclosure KD021-009---- is located c.960m to the southeast of the turbine	Shown within vacant bogland on 1839 OS map and within a marginal reclaimed field on 1912 OS map	No potential unrecorded archaeological sites noted at location	The proposed turbine and hardstand location is within a level pasture field under low grass and gorse growth. The sections of site access tracks to the east and west extend through marginal pasture fields. No surface traces of any potential cultural heritage features were identified during an inspection of the location
Turbine 8	Enclosure KD021-009---- is located c.1,130m to the southeast of the turbine	Shown as area of vacant fields on both editions of the OS maps	No potential unrecorded archaeological sites noted at location	The proposed turbine and hardstand location is within a level pasture field under low grass and gorse growth with an existing farm track extending east west along the south side. No surface traces of any potential cultural heritage features were identified during an inspection of the location
Turbine 9	Enclosure KD021-009---- is located c.860m to the south of the turbine	Shown as area of vacant fields on both editions of the OS maps	No potential unrecorded archaeological sites noted at location	The proposed turbine and hardstand location is within a level pasture field under low grass and gorse growth and is bound by deep land drains. The site access track from the west extends through an area of pasture fields. No surface traces of any potential cultural heritage features were identified during an inspection of the location
Northern Temporary Construction Compound	A Protected Structure (Offaly RPS ref 36-06), which comprises a thatched house in a private property, is located c.1,300m northwest of the compound.	Shown within vacant bogland on 1839 OS map and within a marginal reclaimed field on 1912 OS map	No potential unrecorded archaeological sites noted at location	The location is within a level reclaimed pasture field under low grass growth. No surface traces of any potential cultural heritage features were identified during an inspection of the location
Southeast Temporary Construction Compound	Enclosure KD021-009---- is located c.290m to the south.	Shown within vacant bogland on 1839 OS map and within a marginal reclaimed field on 1912 OS map	No potential unrecorded archaeological sites noted at location	The location is within a level reclaimed pasture field under low grass growth. No surface traces of any potential cultural heritage features were identified during an inspection of the location



Project Element	Nearest cultural heritage constraint	Historic OS Maps	Aerial/Satellite images	Description
Substation	A Protected Structure (Offaly RPS ref 36-06), which comprises a thatched house in a private property, is located c.1,440m to the northwest	Shown as area of vacant fields adjacent to bog margin on both editions of the OS maps	No potential unrecorded archaeological sites noted at location	The location extends into two level reclaimed pasture fields under low grass growth. No surface traces of any potential cultural heritage features were identified during an inspection of the location
GCR	Two road bridges listed as Protected Structures (Offaly RPS ref.s 826 & 827) are located within the environs of proposed HDD works	Details on the review of historic maps of the GCR are provided in Section 15.7.1.2.	No potential unrecorded archaeological sites were noted along the route	The inspection of the public road that the grid connection route follows did not identify any potential unrecorded cultural heritage constraints within the road carriage or adjacent to its margins.
TDR Work Area	There are no recorded cultural heritage constraints located within 100m of two proposed TDR works areas in green field locations (TDR refs 29/30 and 35/36)	TDR work areas are shown as vacant fields on both editions of the OS maps	No potential unrecorded archaeological sites were noted within proposed works areas in green field locations (TDR refs 29/30 and 35/36)	The offline works at TDR ref 29/30 will entail the construction of a new section of track that will extend through two vacant fields and includes a clear span crossing over a section of the Philipstown River. The field on the south side of the river is level and was in use as pastureland at the time of inspection. The field on the north side of the river slopes upwards to the road to the north and was also in use as pastureland. The section of the river flowing east west through the fields has a narrow channel (c.3m wide) with a silty bed and tapering grass-covered banks. No surface traces of any potential cultural heritage features were identified during the inspection of the location, which included a visual appraisal of the river channel from the bank. The offline works at TDR ref 35/36 will entail the construction of a new section of track in the north end of a vacant field that was in use as pastureland at the time of inspection. The ground terrain in this area is level and the field was under low grass cover.



Project Element	Nearest cultural heritage constraint	Historic OS Maps	Aerial/Satellite images	Description
				No surface traces of any potential cultural heritage features were identified during an inspection of the location.



15.8 Likely Significant Effects

15.8.1 Do-Nothing Scenario

The likely evolution of the environment in the absence of the Proposed Development will entail the lands within the site boundary remaining in agricultural use with no large-scale ground excavations works occurring. This scenario would likely result in the continued preservation of the known cultural heritage constraints within the boundary of the Proposed Development, including any potential unrecorded, sub-surface archaeological remains. As such, there would not be any likely significant effects on cultural heritage.

15.8.2 Potential Effects During Construction Phase

15.8.2.1 *Wind Farm Construction Phase Direct Impacts*

There are no recorded archaeological sites located on the footprint of, or directly adjacent to, any of the proposed construction areas within the Site and no potential unrecorded archaeological sites were identified within these areas during the desktop study and field inspections carried out as part of this assessment. Given these factors, no likely significant direct effects on the known archaeological resource are predicted during the construction phase.

The Proposed Development will include a clear span bridge crossing over a section of the Cushina River. An inspection of this crossing point revealed that this section of the river appears to have been subject to dredging and/or clearance works. The construction of the proposed clear span bridge will not require any in-channel works and will, therefore, not result in likely significant direct effects on any potential unrecorded underwater archaeological features that may exist within this watercourse.

The proposed locations of turbines and associated infrastructure within the Site are occupied by a combination of pasture fields, areas of bogland and commercial forestry. No surface traces of any potential unrecorded features of cultural heritage significance were noted at these locations during the compilation of the assessment. The potential does exist for the presence of subsurface archaeological sites, features or artefacts within development areas. As the existence, nature and extent of any unrecorded subsurface archaeological remains within the Site are unknown; the magnitude of potential impacts is indeterminable but ground works during the construction phase will result in permanent, direct, adverse likely significant effects on any unrecorded archaeological sites that may exist within the footprint of construction areas that require ground excavation works, and this will require mitigation (see Section 15.10).

There are no designated architectural heritage structures, or other structures of vernacular interest located within the Site boundary and, therefore no likely significant direct effects on the architectural heritage resource are predicted.

15.8.2.2 *Wind Farm Construction Phase Indirect Impacts*

There are no recorded archaeological sites or architectural heritage structures located within the footprint or within 130m of any proposed development areas within the Site and as such there are no construction phase likely significant indirect effects on the known cultural heritage resource.



15.8.2.3 Grid Connection Construction Phase Direct Impacts

There are no recorded archaeological sites located on the direct footprint of the grid connection route and, therefore, there are no likely significant direct effects on the known archaeological resource during the construction phase. The Record of Protected Structures included in the Laois County Development Plan 2021 – 2027 lists three road bridges that are located within a 100m wide corridor centred on the grid connection route. These include two road bridges on public roads that the route follows, and these comprise Baylough Bridge (RPS 827), which is a triple-arch masonry bridge over the River Barrow in Inchacooly townland, and Bergin's Bridge (RPS 826), which is an arched masonry road bridge over the Mountmellick Branch of the Grand Canal in Loughmansland Glebe townland. The proposed crossing methodology at the locations of these bridges will comprise horizontal directional drilling and this will result in no likely significant direct effects on these structures or their any potential unrecorded underwater archaeological features that may exist within their associated watercourses.

15.8.2.4 Grid Connection Construction Phase Indirect Impacts

As detailed in Section 15.8.2.3, there are two bridges listed as protected structures located within the environs of horizontal directional drilling works required to construct the GCR. This will result in a temporary, low magnitude, indirect, negative effect of slight significance. No likely significant indirect effects will arise during the construction phase.

15.8.2.5 Turbine Delivery Route Construction Phase Direct Impacts

As detailed in Section 2.5.7 of Chapter 2 (Description of the Proposed Development), the delivery of the turbines to the Site will primarily be via the existing road network but will require the construction of new sections of tracks within green field areas (TDR refs 29/30 and 35/36). There are no recorded cultural constraints located within a reviewed 100m study area surrounding these proposed TDR offline works and no potential unrecorded features of cultural heritage significance were identified at these locations during desktop studies and field inspections. The potential does exist for the presence of subsurface archaeological sites, features or artefacts within these proposed development areas. As the existence, nature and extent of any unrecorded subsurface archaeological remains within these areas are unknown; the magnitude of potential impacts is indeterminable but ground works during the construction phase will have the potential to result in permanent, direct, adverse effects, of potential moderate to significant significance, on any unrecorded archaeological sites that may exist within the footprint of construction areas that require ground excavation works, and this will require mitigation (see Section 15.10). As such, if any unrecorded subsurface archaeological remains within these areas are in fact present, ground works during the construction phase will have likely significant effects which will require mitigation.

The new section of track at TDR ref 29/30 will include a clear span bridge crossing over a section of the Philipstown River which extends east to west through the area. The construction of the proposed clear span bridge will not require any in-channel works and will, therefore, not result in likely significant direct effects on any potential unrecorded underwater archaeological features that may exist within this watercourse.

15.8.2.6 Turbine Delivery Route Construction Phase Indirect Impacts

There are no recorded cultural heritage constraints located within the 100m study area surrounding the proposed offline TDR works (TDR refs 29/30 and 35/36) and the construction of new sections of tracks at these locations will not result in any likely significant indirect effects on the known cultural heritage resource.



15.8.3 Potential Effects During Operation Phase

15.8.3.1 *Wind Farm Operational Phase Direct Impacts*

There are no cultural heritage constraints located with 130m of any elements of the wind farm and the operational phase will, therefore, result in no likely significant direct effects on the known cultural heritage resource. The successful implementation of the construction phase mitigation measures detailed in Section 15.10 will result in the preservation in situ by avoidance, or the preservation in record by archaeological excavation, of any unrecorded, sub-surface archaeological sites or features that may exist within proposed development areas within the Site. There will, therefore, be no likely significant direct effects on any such potential unrecorded archaeological sites during the operational phase.

15.8.3.2 *Wind Farm Operational Phase Indirect Impacts*

There are fifteen recorded archaeological sites located within the 2km study area around the Site and the Archaeological Survey of Ireland record that none of these sites retain visible surface remains (Table 15.5). All of these sites are located within private lands which are not accessible to the public and have no tourist or amenity attributes. None are National Monuments in State Care, are subject to Preservation Orders or are monument types that have visual attributes associated with ritual practices such as alignments across the landscape towards astronomical events, e.g., stone circles, stone rows or megalithic tombs, that are likely to be impinged upon by wind turbines.

There are three extant buildings listed in the current Co. Offaly Record of Protected Structures located within the surrounding 2km study area, two of which are also included in the NIAH which assigns them a regional rating (Table 15.7).

There are no National Monuments in State Care located within 10km of the Site. There are three archaeological sites located within 10km of the Site which are subject to Preservation Orders under the National Monuments Act 1930 (as amended) (Table 15.6). These comprise two early medieval ringforts and a burial ground of potential medieval date. None of these archaeological sites are located within 3km of the Site and they do not comprise monument types that possess ritual alignments that extend across the wider landscape.

The landscape extending for 10km in all directions from the Site was also reviewed to ascertain if it contains any recorded prehistoric archaeological monuments with potential ritual visual alignment attributes such as megalithic tombs, stone circles, stone rows and standing stone pairs. This revealed that no such monuments with likely visual sensitivities are located within 10km of the Site.

The magnitude of likely significant indirect effects on the settings of the archaeological sites and architectural heritage structures detailed in Tables 15.11 and 15.12 is based on a consideration of their existing condition, distances from the Site and reviews of Zone of Theoretical Visibility (ZTV) mapping prepared as part of the Landscape and Visual Impact Assessment (LVIA; Chapter 16). The archaeological sites that have been recorded by the Archaeological Survey of Ireland as containing no visible surface traces do not retain existing setting attributes with potential visual sensitivities. As there is a variety in the range of magnitude and significance of impacts on the cultural heritage constraints within the reviewed 2km and 10km study areas the assessment results are presented in table format below (Tables 15.11 and 15.12).



Table 15-11: Indirect effects on cultural heritage constraints within 2km of the Site

Constraint ref.	Classification	Condition*	Potential Setting Sensitivity	Approx. distance from nearest development area	Type of Effect	Quality of Effect	Magnitude of Effect	Duration of Effect	Likely Significance of Effect	Likely Significant Effect?
KD021-009----	Enclosure	Levelled	None	130m south	Neutral	n/a	n/a	n/a	None predicted	No
KD021-010----	Enclosure	Levelled	None	890m southeast	Neutral	n/a	n/a	n/a	None predicted	No
KD021-008001-	Enclosure	Levelled	None	735m south	Neutral	n/a	n/a	n/a	None predicted	No
KD021-008002-	Enclosure	Levelled	None	760m south	Neutral	n/a	n/a	n/a	None predicted	No
KD021-008003-	Enclosure	Levelled	None	750m south	Neutral	n/a	n/a	n/a	None predicted	No
KD021-008004-	Enclosure	Levelled	None	820m south	Neutral	n/a	n/a	n/a	None predicted	No
KD021-008005-	Enclosure	Levelled	None	900m south	Neutral	n/a	n/a	n/a	None predicted	No
KD021-001002-	Ecclesiastical enclosure	Levelled	None	1,790m southeast	Neutral	n/a	n/a	n/a	None predicted	No
KD021-001003-	Church	Levelled	None	1,790m southeast	Neutral	n/a	n/a	n/a	None predicted	No
KD021-001004-	Graveyard	Levelled	None	1,790m southeast	Neutral	n/a	n/a	n/a	None predicted	No
KD021-001005-	Ecclesiastical site	Levelled	None	1,790m southeast	Neutral	n/a	n/a	n/a	None predicted	No



Constraint ref.	Classification	Condition*	Potential Setting Sensitivity	Approx. distance from nearest development area	Type of Effect	Quality of Effect	Magnitude of Effect	Duration of Effect	Likely Significance of Effect	Likely Significant Effect?
OF027-010001-	Enclosure	Levelled	None	1,590m northeast	Neutral	n/a	n/a	n/a	None predicted	No
OF027-010002-	Graveyard	Levelled	None	1,590m northeast	Neutral	n/a	n/a	n/a	None predicted	No
OF027-010003-	Church	Levelled	None	1,590m northeast	Neutral	n/a	n/a	n/a	None predicted	No
OF034-003----	Enclosure	Levelled	None	1,900m south	Neutral	n/a	n/a	n/a	None predicted	No
Protected Structure 37-04	Catholic Church (Bracknagh)	Extant	Medium	1,630m north	Indirect	Adverse	Low	Long term	Slight	No
Protected Structure 37-05	Schoolhouse (Bracknagh)	Extant	Medium	1,500m north	Indirect	Adverse	Low	Long term	Slight	No
Protected Structure 37-06	The Spinning Wheel (thatched house)	Extant	Medium	850m north	Indirect	Adverse	Medium	Long term	Moderate	No



Table 15-12: Indirect effects on Preservation Order (PO) sites within 10km of the Site

Constraint ref.	Classification	Condition*	Potential Setting Sensitivity	Approx. distance from nearest development area	Type of Effect	Quality of Effect	Magnitude of Effect	Duration of Effect	Likely Significance of Effect	Likely Significant Effect?
PO 16/1956	Ringfort	Extant	High	6,700m southeast	Indirect	Adverse	Low	Long term	Slight	No
PO 10/1970	Ringfort	Extant	High	7,900m northeast	Indirect	Adverse	Low	Long term	Slight-	No
PO 5/2000	Burial ground	Sub-surface	None	3,000m southwest	Neutral	n/a	n/a	n/a	None predicted	No



15.8.3.3 Grid Connection Route Direct/Indirect Impacts

The grid connection will comprise a buried cable within existing roads and will result in no likely significant direct or indirect effects on the cultural heritage resource during the operational phase.

15.8.3.4 Turbine Delivery Route Operational Phase Direct/Indirect Impacts

In the event that any turbines are required to be replaced using the same turbine delivery route during the operational phase, no likely significant direct or indirect effects on the cultural resource are predicted.

15.8.4 Potential Effects During Decommissioning

No likely significant direct or indirect effects on known elements of the cultural heritage resource are predicted during the decommissioning phase as there are no recorded cultural heritage constraints located within the footprint or immediate environs of the various elements of the Proposed Development that will be subject to decommissioning. Any previously unrecorded archaeological remains identified during archaeological test trenching in advance of the construction phase or monitoring of construction works in areas not suitable for advance test trenching will either be preserved by avoidance or preserved by record (excavation) and no decommissioning effects on such potential features are predicted. The decommissioning phase will result in the reversal of the long term, slight to moderate, indirect, adverse visual effects on the wider setting of cultural heritage constraints located within the reviewed 2km and 10km study areas by the removal of wind turbines from the Site (Tables 15.11 and 15.12).

15.8.5 Potential Cumulative Effects

A review of completed, permitted and proposed wind farm developments (2014 to present) within the wider landscape extending for 20km from the Site was undertaken in order to assess the potential for cumulative effects on the cultural heritage resource (Table 15.13). The extent of the 20km area was chosen in order to appraise if it contains high visibility developments with the potential to act in combination with the Proposed Development to result in likely significant cumulative adverse effects on the wider settings of extant cultural heritage constraints within the surrounding landscape.



Table 15-13: Wind Energy Developments within 20km of the Proposed Wind Farm Site

Wind Farm Name	Number of Turbines	Distance and Direction from Proposed Site	Status	Cultural Heritage Context
Cloncreen Wind Farm	21	10.6km to the north of the site	Operational since 2022.	A cultural assessment of this development was not sourced online. Archaeological monitoring of the construction phase revealed nothing of archaeological significance ²⁵
Mount Lucas Wind Farm	28	11.1km to the north of the site	Operational since 2015.	The Cultural Heritage chapter in the EIAR for this development did not identify any likely significant direct, indirect or cumulative effects on known cultural heritage constraints. ²⁶ The assessment concluded that visual impacts on cultural heritage constraints within the surrounding study area was likely to be 'minor'. A number of archaeological sites were uncovered during archaeological monitoring of the construction phase and were preserved by record through archaeological excavation. ²⁷
Cushaling Wind Farm	9	12km to the north-east of the site	Permitted since 2020 & construction started in 2022.	The Cultural Heritage chapter in the EIAR prepared for this development did not identify any likely significant direct, indirect or cumulative effects on known cultural heritage constraints ²⁸ . Archaeological monitoring of the construction phase revealed no of archaeological features ^{29 30}
Moanvane Wind Farm	12	18.6km to the west of the site	Permitted since 2018 & construction started in 2022.	A review of the Cultural Heritage chapter in the EIAR prepared for this development revealed that it did not predict any likely significant direct, indirect or cumulative effects on known cultural heritage constraints ³¹ . Archaeological monitoring of the construction phase revealed nothing of archaeological significance ³²

²⁵ <https://excavations.ie/report/2022/Offaly/0032578/>

²⁶ <https://offalycoco.eplanning.ie/idsweb/ViewFiles.aspx?docid=92625&format=djvu>

²⁷ https://excavations.ie/advanced-search/?exca_a=search&search=mountlucas

²⁸ <https://offalycoco.eplanning.ie/idsweb/ViewFiles.aspx?docid=146943&format=djvu>

²⁹ <https://excavations.ie/report/2023/Offaly/0033890/>

³⁰ <https://excavations.ie/report/2023/Offaly/0034586/>

³¹ <https://offalycoco.eplanning.ie/idsweb/ViewFiles.aspx?docid=118931&format=djvu>

³² <https://excavations.ie/report/2023/Offaly/0033504/>



Wind Farm Name	Number of Turbines	Distance and Direction from Proposed Site	Status	Cultural Heritage Context
Yellow River Wind Farm	29	c.19km to the north of the site	Permitted since 2022 construction began in 2022, with an expected completion date in 2025.	The Cultural Heritage chapter in the EIS prepared for this development revealed that it predicted no direct impacts on known cultural heritage constraints. ³³ A range of imperceptible to moderate indirect effects were identified for constraints in close proximity to the development. Archaeological monitoring of the construction phase identified a number of archaeological sites, and these were preserved by record through licensed archaeological excavations ³⁴ .
Dernacart Wind Farm	8	c.15km west of the site	This appeal case is currently under Judicial Review. Approved by An Bord Pleanala (now An Coimisiun Pleanala) in January 2024 (Appeal Case Ref: 310312)	A review of the Cultural Heritage chapter in the EIAR prepared for this development revealed that it did not predict any likely or significant direct, indirect or cumulative effects on known cultural heritage constraints. ³⁵
Clonarrow Wind Farm	4	c.12km to the north of the site	Currently awaiting planning decision (Planning Ref: 256019)	The Cultural Heritage chapter in the EIAR prepared for this development identified no likely significant direct, indirect or cumulative effects on known cultural heritage constraints.
Ballydermot Wind Farm	47	c.8km north east of the site	Pre-Application Stage	A cultural assessment of this development was not sourced online.
Cushina Wind Farm	11	c.4.3km north west of the site	Pre-Application Stage	A cultural assessment of this development was not sourced online.

³³ <http://www.yellowriverwindfarm.com/files/EIS/16.%20EIS.pdf>

³⁴ <https://excavations.ie/report/2024/Offaly/0034874/>

³⁵ [https://www.pleanala.ie/publicaccess/EIAR-NIS/310312/310312%20-%20eiar%20environmental%20impact%20assessment%20report%20\(eiar\)%20for%20dernacart%20wind%20farm%20volume%202%20-%20main%20eiar%20\(2\).pdf?r=796662163650](https://www.pleanala.ie/publicaccess/EIAR-NIS/310312/310312%20-%20eiar%20environmental%20impact%20assessment%20report%20(eiar)%20for%20dernacart%20wind%20farm%20volume%202%20-%20main%20eiar%20(2).pdf?r=796662163650)



Based on the review of the available cultural heritage impact assessments of the above wind farm developments it is noted that none of these assessments predicted any likely significant effects on the cultural heritage resource. In addition, a review of the results of programmes of archaeological investigations carried out at a number of these developments confirmed that nothing of archaeological significance was identified at their locations. Based on these results in combination with the distances of the reviewed wind farm developments from the Proposed Development and the absence of known cultural heritage sites with notable visual sensitivities, such as National Monuments in State Care and monuments with potential ritual alignments, within the landscape extending for 10 km from the Site, it is concluded that the reviewed wind farms will not act in combination with the Proposed Development to result in likely significant direct or indirect cumulative effects on the cultural heritage resource.

15.9 Risk of Major Accidents and Disasters and Unplanned Events

As detailed in Table 15.11, there are no recorded extant cultural heritage constraints located within 850m of proposed development areas within the Site and, therefore, no likely significant risk of major accidents or unplanned events relevant to the cultural heritage resource will arise.

15.10 Mitigation Measures

The mitigation measures presented in this section are based on professional judgement and experience and comprise pre-construction (test trenching of suitable lands) and construction phase (monitoring of lands not suitable for test trenching) archaeological site investigations which are in accordance with the guidelines for archaeological planning conditions for wind energy developments detailed in the *2006 Wind Energy Development Guidelines*³⁶ (Section 7.4) and the *2019 Draft Revised Wind Energy Development Guidelines*³⁷ (Section 7.6). The guidelines presented in both of these documents in relation to archaeological conditions for wind energy developments are the same.

15.10.1 Mitigation by Avoidance

A process of 'mitigation by avoidance', as informed by constraints assessment and consultation, was undertaken by the EIA team during the design of the wind farm layout and selection of grid connection (refer to Chapter 3 - Site Selection and Alternatives for further detail) with the objective of avoiding / minimising likely significant effects on known cultural heritage constraints.

15.10.2 Pre-Construction Mitigation Measures

A suitably qualified archaeologist will be appointed to carry out a programme of pre-construction test trenching at the locations of the turbines and all other associated infrastructure within the Site that will require ground excavations works and which are located in lands suitable for test trenching. This site investigation will be carried out under licence by the National Monuments Service, Department of Housing, Local Government and Heritage. In the event that any sub-surface archaeological features are identified during these site investigations they will be recorded by the appointed archaeologist and will then be securely cordoned off while the National Monuments Service are consulted to determine further appropriate mitigation measures, which may include preservation in situ (by avoidance) or preservation by record (archaeological excavation).

³⁶ <https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/>

³⁷ <https://www.gov.ie/en/publication/9d0f66-draft-revised-wind-energy-development-guidelines-december-2019/>



15.10.3 Construction Phase Mitigation Measures

The location of T2, its associated hardstand and a section of a site access track to the east are within a commercial forestry plantation and it will not be feasible to carry out pre-construction site investigations at this location. The potential also exists that other areas of uneven or overgrown ground within the Site will not be suitable for pre-construction test trenching investigations. A suitably qualified archaeologist will be employed to monitor ground works during the construction phase in any such locations and this will also include the offline TDR work areas in green field areas within third-party lands (TDR refs 29/30 and 35/36). This site investigation will be carried out under licence by the National Monuments Service. In the event that any sub-surface archaeological features are identified by the appointed archaeologist during these site investigations ground works will halt at the relevant location. The identified archaeological remains will be recorded and will then be securely cordoned off while the National Monuments Service are consulted to determine further appropriate mitigation measures, which may include preservation in situ (by avoidance) or preservation by record (archaeological excavation).

15.10.4 Operation Phase Mitigation Measures

No likely significant direct or indirect effects on known elements of the cultural heritage resource are predicted to arise during the operational phase and, therefore, no cultural heritage mitigation measures are required for this phase.

15.10.5 Decommissioning Phase Mitigation Measures

No likely significant direct or indirect effects on known elements of the cultural heritage resource are predicted during the decommissioning phase and, therefore, no cultural heritage mitigation measures are required for this phase.

15.10.6 Monitoring of Mitigation Measures

There are a number of obligatory processes to be undertaken as part of applications to the National Monuments Service for archaeological and test trenching and monitoring licences which will allow for monitoring of the successful implementation of the archaeological mitigation measures. These include the submission of application forms and method statements detailing the proposed strategies for all site investigations, including the processes to be enacted in the event of the discovery of any archaeological remains. A report will be compiled on all archaeological site investigations following their completion in order to comply with the National Monuments Service licensing requirements. The report will clearly present the results of all archaeological works in written, drawn and photographic formats and copies will be submitted to the National Monuments Service, the Planning Authority and the National Museum of Ireland.



15.11 Residual Effects

15.11.1 Residual Effects during Construction Phase

No likely significant effects on the known cultural heritage resource will arise as a result of the construction phase. The archaeological mitigation measures presented in Section 15.10 entail programmes of pre-construction test trenching and construction phase monitoring which will be carried out by a suitably qualified archaeologist. The implementation of these measures will provide for either the preservation in situ by avoidance of any currently unknown, sub-surface archaeological remains identified during these site investigations or the proper and adequate recording of such remains by a full archaeological excavation carried out under licence by the National Monuments Service. Preservation in situ shall allow for a negligible magnitude of effect resulting in a potential not significant/imperceptible significance of effect in the context of residual effect on the unrecorded archaeological resource. No likely significant residual effects will arise from preservation in situ mitigation. Preservation by record shall allow for a high magnitude of effect, albeit ameliorated by the creation of a full and detailed archaeological record, the results of which shall be publicly disseminated. This shall result in a likely slight to moderate range of significance of direct effects in the context of residual effects on the unrecorded archaeological resource. No likely significant residual effects will arise from preservation by record mitigation.

15.11.2 Residual Effects during Operation Phase

The operational phase of the Development will result in long term, slight to moderate, indirect, adverse residual effects of a visual nature on the wider setting of cultural heritage constraints within the wider landscape. Given the nature of the wind farm turbines, there are no mitigation measures that can ameliorate these indirect residual effects. A review of the Landscape and Visual Amenity assessment (Chapter 16) shows that it identifies no likely significant residual effects on any cultural heritage receptors. In conclusion, no likely significant effects on the known cultural heritage resource will arise as a result of the operation phase.

15.11.3 Residual Effects during Decommissioning Phase

No likely significant residual effects on the cultural heritage resource are predicted to arise as a result of decommissioning. The decommissioning of the turbines within the Site will result in the reversal of the operation phase slight to moderate, indirect, adverse residual effects on the wider setting of cultural heritage constraints within the wider landscape.



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