



Bracklyn Wind Farm

Chapter 10: Cultural Heritage

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10.1 Introduction

This chapter has been prepared to assess and define any likely significant impacts or effects which the construction, operation and decommissioning of the proposed development may have on the archaeological, architectural and cultural heritage resource.

The chapter includes an identification of likely significant impacts or effects which may arise and outlines mitigation measures, based on current information, which may be used to avoid, reduce or offset any likely adverse effects.

10.1.1 Objectives

The objectives of this chapter are to:-

- identify all known features of archaeological, architectural and cultural heritage importance in the vicinity of the proposed development;
- determine any likely impacts of the proposed development on the archaeological, architectural and cultural heritage resource; and
- identify measures to mitigate any likely impacts of the development on the archaeological, architectural and cultural heritage resource.

The following key issues are addressed:-

- Direct and indirect impacts of the construction of the development on the archaeological, architectural and cultural heritage resource;
- Direct and indirect impacts of the operation of the development on the archaeological, architectural and cultural heritage resource; and
- Cumulative impacts of the construction and operation of the development on the archaeological, architectural and cultural heritage resource with other existing, permitted or proposed developments or projects.

10.1.2 The Proposed Development

A full description of the proposed development is presented in **Chapter 3**. In summary, the proposed development comprises the following main components:-

- 9 no. wind turbines with an overall tip height of 185m, and all associated ancillary infrastructure;
- Upgrades to the turbine component haul route;
- Construction of a 110kV electricity substation and installation of c. 6.3km of underground electricity line between the proposed substation and the existing Corduff-Mullingar 110kV overhead electricity line; and
- All associated and ancillary site development, excavation, construction, landscaping and reinstatement works, including provision of site drainage infrastructure.

The majority of the proposed development is located within the administrative area of County Westmeath; while approximately 2.5km of underground electricity line and the proposed end masts will be located within County Meath. Additionally, candidate quarries which may supply construction materials are also located within County Meath.

The proposed turbine component haul route is also located within the counties of Waterford, Kilkenny, Carlow, Kildare and Dublin.

A full description of the proposed development is presented in **Chapter 3**.

10.1.3 Statement of Authority

10.1.3.1 Dermot Nelis BA ArchOxon AIFA MIAI

Dermot Nelis graduated from Queen's University Belfast, and after gaining extensive fieldwork experience undertook postgraduate studies at the University of Oxford in archaeological consultancy and project management.

Dermot has acted as Senior Archaeologist on several road schemes and has directed large-scale multi-period excavations associated with those developments. He has completed over 180 licensed fieldwork programmes and over 250 archaeological, architectural and cultural heritage desk-based reports, including assessments for Environmental Impact Statements and Environmental Impact Assessment Reports.

10.2 Methodology

10.2.1 Study Area

There is no professional standard for defining the extent of a study area when assessing the likelihood of effects on archaeological, architectural or cultural heritage remains. A 1km study area has been applied around the proposed development to assess the presence of statutorily protected archaeological remains (RMP sites). In addition, a 5km study area has been applied around the proposed development to assess the presence of any World Heritage Sites, sites included in the Tentative List as consideration for nomination to the World Heritage List, National Monuments, sites with Preservation Orders or Temporary Orders, Protected Structures, Conservation Areas or Proposed Conservation Areas.

A 1km study area has been applied around the proposed development to record the presence of any structures recorded on the National Inventory of Architectural Heritage (NIAH). An assessment has also been made of any historic gardens or designed landscapes as recorded on the NIAH that may exist within the proposed development area.

A 100m study area has been applied around the proposed grid connection, while the area of land take associated with the proposed road upgrade works has also been assessed.

10.2.2 Sources of Information

Research has been undertaken in two phases. The first phase comprised a desk review, namely a paper and digital survey of archaeological, historical and cartographic sources. The second phase involved field inspections of the proposed development area. Each phase is outlined in the following sections.

The following sources were examined and a list of sites and areas of archaeological, architectural and cultural heritage potential was compiled:-

- Record of Monuments and Places of County Westmeath and County Meath;
- Topographical Files of the National Museum of Ireland;
- Cartographic and documentary sources relating to the study area;
- Aerial photographs of Ordnance Survey Ireland and Bing aerial photography;
- Westmeath County Development Plan (2021 - 2027), Meath County Development Plan (2013 - 2019) and Draft Meath County Development Plan (2021 - 2027);
- National Inventory of Archaeological Heritage; and

- Environmental Protection Agency's *Guidelines on the Information to be Contained in Environmental Impact Statements (2002)* and *Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2017)*.

Record of Monuments and Places (RMP) is a list of archaeological sites known to the National Monuments Service. Back-up files of the Sites and Monuments Record (SMR) provide details of documentary sources and field inspections where these have taken place. The grid connection extends into County Meath, and as such the Meath RMP was evaluated.

Topographical Files of the National Museum of Ireland is the archive of all known finds recorded by the National Museum. This archive relates primarily to artefacts, but also includes references to monuments and unique records of previous excavations. The find spots of artefacts are important sources of information in the discovery of sites of archaeological significance.

Cartographic sources are important in tracing land-use development within an area of land take, as well as providing important topographical information on sites and areas of archaeological potential. Cartographic analysis of relevant maps has been made to identify any topographical anomalies that may no longer remain within the landscape.

Documentary sources were consulted to gain background information on the historical and archaeological landscape of the wider development area.

Aerial photographic coverage is an important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its potential to contain previously unidentified archaeological remains.

Westmeath County Development Plan (2021 - 2027), Meath County Development Plan (2013 – 2019) and Draft Meath County Development Plan (2021 – 2027) contain Objectives and Policies on the preservation and management of archaeological, architectural and cultural heritage features. The 5km study area extends in to County Meath, while approximately 2.65km of underground electricity line and the proposed end masts will be located within County Meath. As such the Meath County Development Plan and the Draft Meath County Development Plan have been evaluated.

National Inventory of Architectural Heritage is a section within the Department of Housing, Local Government and Heritage. The work of NIAH involves identifying, recording and evaluating, on a non-statutory basis, the architectural heritage of Ireland from 1700 to the present day. The NIAH website also contains a non-statutory register of historic gardens and designed landscapes in counties Westmeath and Meath, and this was assessed to look for the presence of any such features within the proposed development.

Environment Protection Agency's "Guidelines on the Information to be Contained in Environmental Impact Statements" and "Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports" provide definitions for potential effects on archaeological, architectural and cultural heritage remains.

10.2.3 Field Inspection

Field inspection is necessary to determine the extent, character and condition of archaeological, architectural and cultural heritage features, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information.

Site visits were undertaken on 12 March 2020 and 1 February 2021 and areas of proposed land take were walked and visually assessed. The grid connection route was assessed by means of a windshield survey and walkover survey.

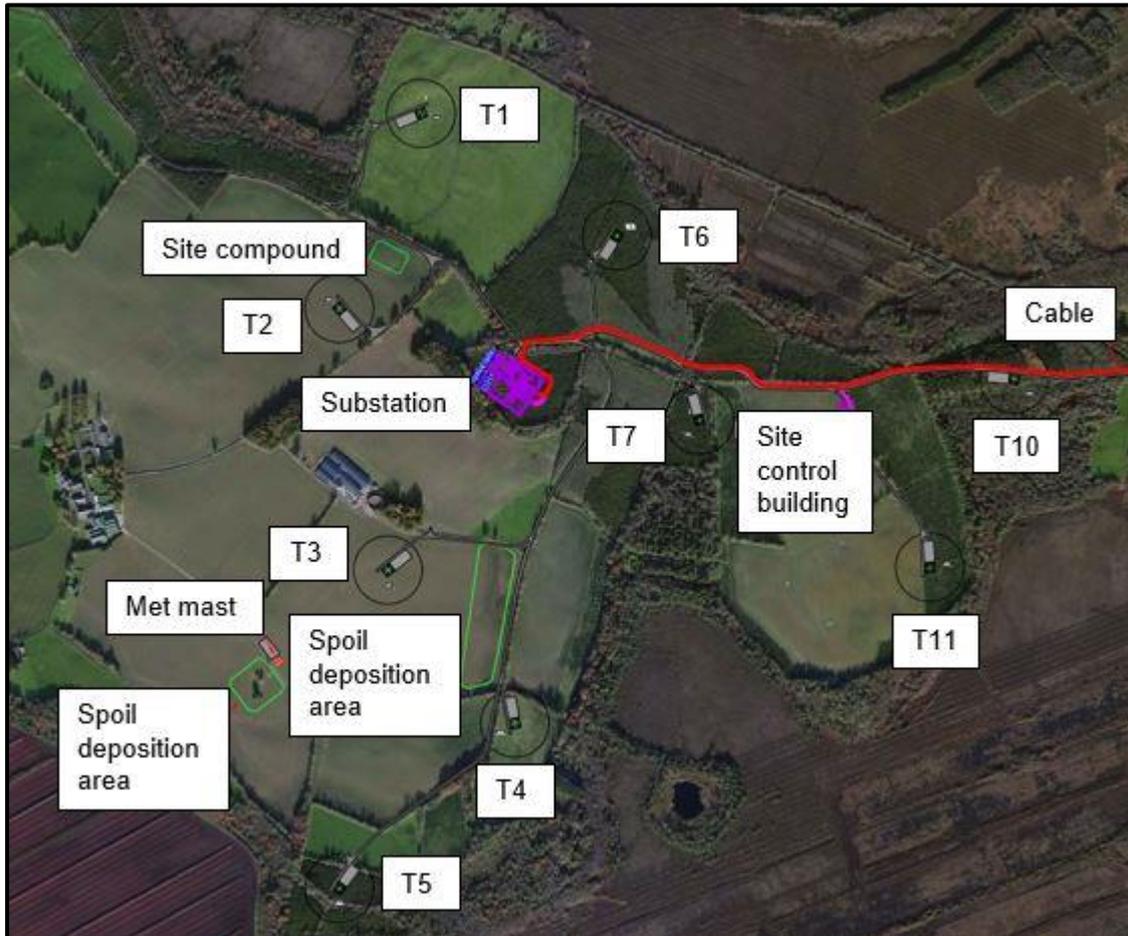


Figure 10.1: Aerial photograph showing location of Turbines 1–7, Turbines 10–11 and associated infrastructure



Figure 10.2: Aerial photograph showing western end of the grid connection

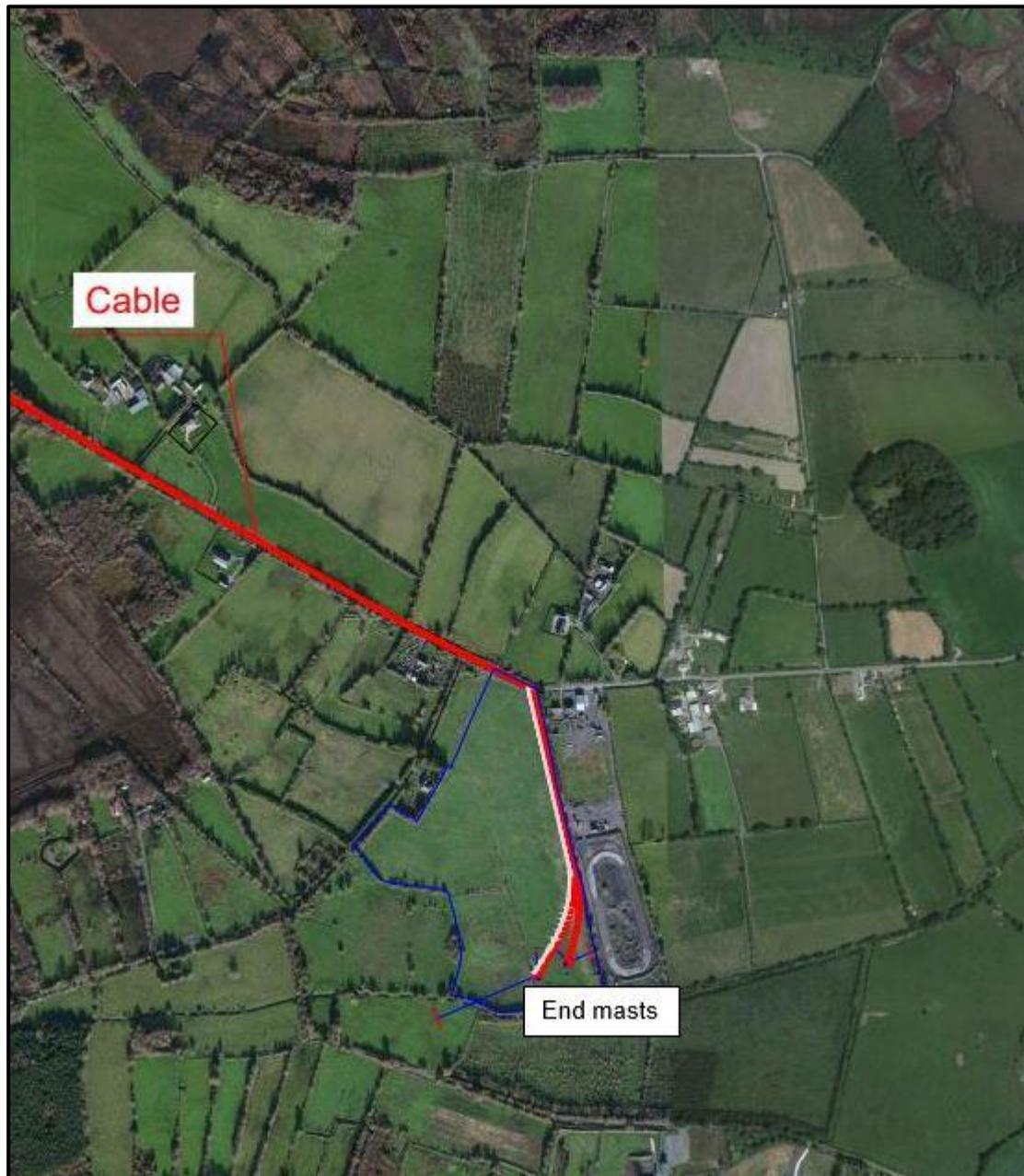


Figure 10.3: Aerial photograph showing eastern end of the grid connection

10.2.4 Significance Criteria

The likelihood of significant effects can be identified from detailed information about a project, the nature of the area affected and the range of resources potentially affected. The construction and operation of wind farms and their associated activities can affect the archaeological, architectural and cultural heritage resource of a given landscape in a number of ways:-

- Permanent and temporary land-take, associated structures, landscape mounding and their construction may result in damage to or loss of archaeological remains and deposits, or physical loss to the setting of historic monuments and to the physical coherence of the landscape;

- Archaeological sites can be affected adversely in a number of ways: disturbance by excavation, topsoil stripping and the passage of heavy machinery, disturbance by vehicles working in unsuitable conditions, burial of sites thus limiting accessibility for future archaeological investigation;
- Hydrological changes in groundwater or surface water levels can result from construction activities such as de-watering and spoil disposal, or long-term changes in drainage patterns. These may desiccate archaeological remains and associated deposits;
- Visual and noise effects on the historic landscape can arise from construction traffic and facilities, built earthworks and structures, landscape mounding and planting, noise, fences and associated works. These features can impinge directly on historic structures and historic landscape elements as well as their visual amenity value;
- Landscape measures, such as tree planting, can damage sub-surface archaeological features due to topsoil stripping and through the root action of trees and shrubs as they grow;
- Ground consolidation by construction activities or the weight of permanent embankments can cause damage to buried archaeological remains, especially in colluvium or peat deposits;
- Disruption due to construction also offers the potential for adversely affecting archaeological remains. This can include machinery, site offices, service trenches, etc; and
- Although not widely appreciated, positive effects can accrue from permitted developments. These can include positive resource management policies, improved maintenance and access to archaeological monuments and the increased level of knowledge of a site or historic landscape as a result of assessment and fieldwork.

There is no standard scale against which the significance of likely effects on the archaeological and historic landscape may be judged. The severity of a given level of land take or visual intrusion varies with the type of monument, site or landscape features and its environment. Significance of effect can be judged taking the following into account:-

- The proportion of the feature affected and how far physical characteristics fundamental to the understanding of the feature would be lost;
- Consideration of the type, date, survival/condition, fragility/vulnerability, rarity, potential and amenity value of the feature affected; and
- Assessment of the levels of visual, noise and hydrological effects, either in general or site specific terms, as may be provided by other specialists.

For this assessment, the significant effects criteria outlined in **Table 10.1** are used.

Level of Effects	Significance Criteria
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 Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities

Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
Significant Effects	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 Effects	An effect which obliterates sensitive characteristics

Table 10.1: Significance of Effects

10.3 Policy and Legislation

10.3.1 Archaeological Resource

The National Monuments Act, 1930 to 2004 and relevant provisions of the National Cultural Institutions Act, 1997 are the primary means of ensuring the satisfactory protection of archaeological remains, which includes all man-made structures of whatever form or date, except buildings habitually used for ecclesiastical purposes.

A number of mechanisms under the National Monuments Act are applied to secure the protection of archaeological monuments. These include the Record of Monuments and Places, the Register of Historic Monuments, the placing of Preservation Orders and Temporary Preservation Orders on endangered sites and National Monuments in the Ownership or Guardianship of the Minister for Housing, Local Government and Heritage or a Local Authority.

The Minister may acquire National Monuments by agreement or by compulsory order. The State or the Local Authority may assume guardianship of any National Monument (other than dwellings). The owners of National Monuments (other than dwellings) may also appoint the Minister or the Local Authority as Guardian of that monument if the State or Local Authority agrees. Once the site is in ownership or Guardianship of the State, it may not be interfered with without the written consent of the Minister.

Section 5 of the 1987 Act requires the Minister to establish and maintain a Register of Historic Monuments. Historic Monuments and archaeological areas present on the Register are afforded statutory protection under the 1987 Act. Any interference with sites recorded on the Register is illegal without the permission of the Minister. Two months' notice in writing is required prior to any work being undertaken on or in the vicinity of a Registered Monument. The Register also includes sites under Preservation Orders and Temporary Preservation Orders. All Registered Monuments are included in the Record of Monuments and Places.

Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister.

Section 12(1) of the 1994 Act requires the Minister to establish and maintain a Record of Monuments and Places where the Minister believes that such monuments exist. The Record comprises a list of monuments and relevant places and a map/s showing

each monument and relevant place in respect of each county in the State. All sites recorded on the Record of Monuments and Places receive statutory protection under the National Monuments Act 1994.

Section 12(3) of the 1994 Act provides that:-

“where the owner or occupier (other than the Minister for Arts, Heritage and the Gaeltacht) of a monument or place included in the Record, or any other person, proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such a monument or place, he or she shall give notice in writing to the Minister of Arts, Heritage and the Gaeltacht to carry out work and shall not, except in the case of urgent necessity and with the consent of the Minister, commence the work until two months after the giving of notice” (www.archaeology.ie).

10.3.2 Architectural and Built Heritage Resource

The main laws protecting the built heritage are the Architectural Heritage (National Inventory) and Historic Properties (Miscellaneous Provisions) Act, 1999 and the Planning and Development Act 2000 (as amended). The Architectural Heritage Act requires the Minister to establish a survey to identify, record and assess the architectural heritage of the country. The National Inventory of Architectural Heritage records built heritage structures within all the counties of the State. As inclusion in the Inventory does not provide statutory protection, the document is used to advise Local Authorities on compilation of a Record of Protected Structures (RPS) as required by the Planning and Development Act 2000.

The Planning and Development Act 2000 (as amended) requires Local Authorities to establish a Record of Protected Structures to be included in the County Development Plan. This Plan includes objectives designed to protect the archaeological, architectural and cultural heritage resource during the planning process. Buildings recorded in the RPS can include Recorded Monuments, structures listed in the NIAH, or buildings deemed to be of architectural, archaeological or artistic importance by the Minister. Sites, areas or structures of archaeological, architectural or artistic interest listed in the RPS receive statutory protection from injury or demolition under the 2000 Act. Damage to or demolition of a site registered on the RPS is an offence. The RPS list is not always comprehensive in every county.

A Local Authority has the power to order conservation and restoration works to be undertaken by the owner of a Protected Structure if it considers the building in need of repair. An owner or developer must make a written request to the Local Authority to carry out any works on a Protected Structure and its environs, which will be reviewed within 12 weeks of application. Failure to do so may result in prosecution.

10.4 Description of the Existing Environment

10.4.1 General Archaeological and Historical Background

Firstly, it is important to highlight that while there are two Recorded Monuments located within the planning application boundary for the proposed development, the footprint of the proposed development is not located within the extents of either of these Recorded Monuments.

Westmeath is an inland county covering an area of 1,763 square km. The landscape is predominantly low-lying and undulating, with a number of low hills rising in a band

running north east to south west through the centre of the county. The parent geology of the region is Lower Carboniferous limestone sealed by a layer of glacial deposits up to 60m deep.

During the Mesolithic period (c. 7,000-4,000 BC) people existed as hunters/gatherers, living on the coastline, along rivers and lakesides. They used flint and other stones to manufacture sharp tools, and locating scatters of discarded stone tools and debris from their manufacture can sometimes identify settlements.

Mesolithic activity in County Westmeath has been found on the south east shore of Lough Derravaragh approximately 14km north west of the proposed development, on the north shore of Lough Derravaragh approximately 22km north west of the proposed development, and at Corralanna townland approximately 25km north west of the proposed development (www.archaeology.ie).

During the Neolithic period (c. 4000-2400 BC) the population became more settled with a subsistence economy based on crop growing and stock-raising. A Neolithic complex has recently been excavated at Demesne or Mearsparkfarm, near Kilbeggan, approximately 35km south west of the proposed development (www.archaeology.ie). A settlement consisting of a structure, hearth area, numerous pits and linear ditches was uncovered during roadworks associated with a road scheme and it is thought that this site may prove to be a Neolithic farmstead. Artefactual material recovered included flint knives, scrapers, an arrowhead and worked antler. A single crouched inhumation was also found interred in a simple pit and it is also thought to date to the prehistoric period.

By the 4th millennium BC, a farming economy was developing that involved forest clearance. Archaeological and pollen records show an increasingly settled landscape with some fixed field boundaries for livestock and cereal production. While farming did spread throughout the country, the preference was for light soils and upland margins with free draining soils and light woodland cover.

The Bronze Age (c. 2,400-600 BC) is characterised by the introduction of metalworking technology to Ireland and coincides with many changes in the archaeological record, both in terms of material culture as well as the nature of the sites and monuments themselves. Though this activity has markedly different characteristics to that of the preceding Neolithic period, including new structural forms and new artefacts, it also reflects a degree of continuity.

Bronze Age monuments from County Westmeath include standing stones, cist and pit burials, barrows and *fulachtaí fia* which are one of the most numerous monument types in Ireland with over 4,500 examples recorded (Waddell 2005, 174).

A flat cemetery is interpreted as three or more individual burials in pits or cists, related to one another by rite, grave goods or simply by their close proximity to one another. They are not covered by a mound and are dated to the Bronze Age (c. 2,400-600 BC).

During the Iron Age (c. 600 BC-400 AD) new influences came into Ireland which gradually introduced the knowledge and use of iron, although for several centuries bronze continued to be widely used. The Iron Age in Ireland however is problematic for archaeologists as few artefacts dating exclusively to this period have been found, and without extensive excavation it cannot be determined whether several monument types, such as ring-barrows or standing stones, date to the Bronze Age or Iron Age.

The Early Medieval period (c. 400-1169 AD) is depicted in the surviving sources as entirely rural, characterised by the basic territorial unit known as *túath*. Walsh (2000, 30) estimates that there were at least 100, and perhaps as many as 150, kings in Ireland at any given time during this period, each ruling over his own *túath*.

During this turbulent period roughly circular defensive enclosures known as ringforts were constructed to protect farmsteads. They were enclosed by an earthen bank and exterior ditch, and ranged from approximately 25m to 50m in diameter. The smaller sized and single banked type (univallate) was more than likely home to the lower ranks of society, while larger examples with more than one bank (bivallate/trivallate) housed the more powerful kings and lords. They are regarded as defended family homesteads, and the extant dating evidence suggests they were primarily built between the 7th and 9th centuries AD (Stout 1997, 22-31).

Ringforts are considered to be the most common indicator of settlement during the Early Medieval period. The most recent detailed study (*ibid.*, 53) has suggested that there is an approximate total of 45,119 potential ringforts or enclosure sites throughout Ireland.

A hut site is a structure, usually discernible as a low, stone foundation or earthen bank, enclosing a circular, oval or sub-rectangular area and is generally less than 5m in diameter. They are generally too insubstantial to classify as a house, but the majority probably functioned as dwellings. They may date to any period from prehistory to the Medieval period.

Enclosures belong to a classification of monument whose precise nature is unclear. Often they may represent ringforts, which have either been damaged to a point where they cannot be positively recognised, or are smaller or more irregular in plan than the accepted range for a ringfort. An Early Medieval date is generally likely for this site type, though not a certainty.

The classification of archaeological monuments is often made difficult by their condition, whether it be the result of deliberate destruction, trampling by livestock or natural weathering and erosion. The term “*earthwork*” is used to denote any monument or feature of artificial origin which cannot be further categorised without excavation. The term “*earthwork site*” indicates sites which were levelled before detailed archaeological inspection took place. The majority of such sites may be levelled or destroyed ringforts.

Field systems are a group or complex of fields which appear to form a coherent whole, and which may date to any period from the Neolithic (c. 4000-2400 BC) onwards. The enclosed land could have been used for stock-raising, plant husbandry and crop protection. The fields vary in size and it is possible that many of them are more extensive than currently thought. A wide range of monuments, such as ringforts, enclosures, souterrains, hut sites, ecclesiastical remains *etc.*, can be found inside field systems.

The Early Medieval period is also characterised by the foundation of a large number of ecclesiastical sites throughout Ireland in the centuries following the introduction of Christianity in the 5th century AD. The early churches tended to be constructed of wood or post-and-wattle, although between the late 8th and 10th centuries mortared stone churches gradually replaced the earlier structures. Many of the sites, some of which were monastic foundations, were probably originally defined by an enclosing

wall or bank similar to that found at coeval secular sites. This enclosing feature was possibly built more to define the sacred character of the area of the church than as a defence against aggression. An inner and outer enclosure can be seen at some of the more important sites; the inner enclosure surrounding the sacred area of church and burial ground and the outer enclosure providing a boundary around living quarters and craft areas. Where remains of an enclosure survive it is often the only evidence that the site was an early Christian foundation.

There are a number of important early ecclesiastical sites in Westmeath. Fore, located approximately 14km north west of the proposed development, has remains dating from the 7th to the 17th century. Other sites include Kilbixy approximately 28km west of the proposed development and Inchbofin, an island on Lough Ree, approximately 55km west of the proposed development (www.archaeology.ie).

The commencement of Viking raids at the end of the 8th century and their subsequent settlement during the following two centuries marked the first ever foreign invasion of Ireland. Viking settlement evidence is scarce and has been found in Cork, Dublin and Waterford, however excavations there have revealed extensive remains of the Viking towns. Outside these towns, understanding of Viking settlement is largely drawn from documentary and place-name evidence. In addition to Cork, Dublin and Waterford, documentary sources provide evidence for the Viking foundation of the coastal towns of Limerick and Wexford (Edwards 2006, 179). Other indirect evidence which suggest Viking settlement, or at least a Norse influence in Ireland, is represented by upwards of 120 Viking-age coin hoards, possible votive offerings of Viking style objects and the assimilation of Scandinavian art styles into Irish designs. While the initial Viking raids would have been traumatic, the wealth and urban expansion brought into the country as a result of Viking trading would have benefited the Gaelic Irish, and cultural assimilation in some parts would have been significant.

The arrival of Anglo-Normans in Ireland towards the end of the 12th century resulted in great changes during the following century. Large numbers of colonists arrived from England and Wales and established towns and villages. They brought with them new methods of agriculture which facilitated an intensification of production. Surplus foods were exported to markets all along Atlantic Europe which created great wealth and economic growth. Results of this wealth can be seen in the landscape in the form of stone castles, churches and monasteries.

The political structure of Anglo-Normans centred around the establishment of shires, manors, castles, villages and churches. In the initial decades after the Anglo-Norman invasion a distinctive type of earth and timber fortification was constructed- the motte and bailey. Mottes were raised mounds of earth topped with a wooden or stone tower, while the bailey was an enclosure surrounded by an earthen ditch with a timber palisade used to house ancillary structures, horses and livestock. There are 28 motte and baileys recorded in County Westmeath (www.archaeology.ie).

In certain areas of Ireland Anglo-Norman settlers constructed square or rectangular enclosures, now termed moated sites. Their main defensive feature was a wide, often water-filled, fosse with an internal bank. As in the case of ringforts, these enclosures protected a house and outbuildings usually built of wood. They appear to have been constructed in the latter part of the 13th century though little precise information is available. There are 62 moated sites recorded in County Westmeath (www.archaeology.ie).

More substantial stone castles followed the motte and bailey and moated sites in the 13th and 14th centuries. Tower houses are regarded as a late type of castle and were erected from the 14th to early 17th centuries. Their primary function was defensive, with narrow windows and a tower often surrounded by a high stone wall (bawn). An Act of Parliament of 1429 gave a subsidy of £10 to “*liege*” men to build castles of a minimum size of 20ft in length, 16ft in breadth and 40ft in height (6m x 5m x 12m). By 1449 so many of these £10 castles had been built that a limit had to be placed on the number of grants being made available. The later tower houses were often smaller, with less bulky walls and no vaulting. There are 83 tower houses recorded in County Westmeath (www.archaeology.ie).

Economic prosperity saw the endowment of ecclesiastical establishments in the Medieval period. Augustinian and Dominican priories were established in Mullingar, a Franciscan foundation at Athlone and a Cistercian foundation at Kilbeggan. The finest Medieval monastic remains in Westmeath are considered to be the ruins of the Benedictine abbey at Fore, which was founded in the 13th century and which was extensively re-modelled in the mid-15th century.

The 14th century throughout north west Europe is generally regarded as having been a time of crisis, and Ireland was no exception. Although the Irish economy had been growing in the late 13th century, it was not growing quickly enough to support the rapidly expanding population, especially when Edward I was using the trade of Irish goods to finance his campaigns in Scotland and Wales. When the Great European Famine of 1315-1317 arrived in Ireland, brought about by lengthy periods of severe weather and climate change, its effects were exacerbated by the Bruce Invasion of 1315-1318. Manorial records which date to the early 14th century show that there was a noticeable decline in agricultural production. This economic instability and decline was further worsened with the onset of the Bubonic Plague in 1348. Athlone and Mullingar declined in importance at this time, and the towns of Ballymore, Kilbixy and Ardnurcher were abandoned.

Before the Tudors came to the throne the kings of England were also the kings of western France and so, during the 14th and 15th centuries, the various lords who ruled in Ireland were largely left to themselves. The Tudors however took more of an interest in the affairs of Ireland, and they wanted to put a stop to the raids of the Gaelic Irish on areas under English rule. To do this, they ruthlessly put down any rebellions and even quashed inter-tribal feuds. English settlers were then brought in to settle their lands. The first of these plantations occurred in the mid-16th century in what is now Laois and Offaly. After the Desmond rising in Munster in 1585 came another plantation, and parts of south western Tipperary were planted at that time.

Henry VIII's strategy for regaining control of Ireland included the establishment of Westmeath as a separate county in 1542, with Mullingar designated as the county town. From 1593 until 1603 there was a countrywide war between the Gaelic Irish, who were supported by the French, and the Elizabethan English. The Irish were finally defeated and with the “*Flight of the Earls*” from Rathmullan, County Donegal, in 1607 Ulster, which had previously been independent of English rule, was planted.

Expansion in the agricultural sector following a period of economic growth in Ireland from the mid-1730s led to rising prices and increase in trade. This increase in agricultural productivity led to growth in related industrial development throughout the country.

10.4.2 Site-Specific Archaeological Background

There are 14 no. Recorded Monuments within 1km of the proposed development, each of which is described below.

10.4.2.1 RMP WM013-064: flat cemetery

RMP WM013-064 is recorded approximately 110m west of the proposed road upgrade works and 1km north west of the access road leading to Turbine 1 in Cartenstown townland. The site is on top of a low esker. A human skeleton (Cist B) was discovered 0.25m below the ground surface in 1958 while digging in a garden. It lay crouched on its right side in a small, four-sided cist. At its base the grave measured 0.63m north/south x 0.48m east/west. A second discovery of burials was made in the same area in 1961. Cist C contained 10 small unburned fragments of a child's skeleton, and this was the third of three short stone cists found in a gravel ridge in this location. Cist A was destroyed before any archaeological investigation could take place.

10.4.2.2 RMP WM013-065: ringfort

RMP WM013-065 is located in Ballynacor townland, approximately 100m south west of the proposed road upgrade works and 830m north west of the access road leading to Turbine 1. It is a circular area, measuring approximately 31m east/west in diameter, enclosed by a low earthen bank and wide external fosse. There is a possible 3.3m wide entrance gap at north north east.

10.4.2.3 RMP WM013-066: earthwork

RMP WM013-066 is located in Ballynacor townland, approximately 390m south east of the proposed road upgrade works and 520m north west of the access road leading to Turbine 1. An earthwork is depicted at this location on a map dated 1808 (www.archaeology.ie). The land was improved using machinery in the late 1970s, and there are no surface remains visible of any monument at this location.

10.4.2.4 RMP WM013-067: ringfort

RMP WM013-067 is recorded approximately 320m east of the proposed road upgrade works and 620m north west of the access road leading to Turbine 1 in Ballynacor and Martinstown townlands. A large sub-circular shaped area, measuring approximately 38m north east/south west in diameter, is enclosed by an earth and stone bank and a shallow external fosse. There is a 1.4m wide entrance gap at west south west.

10.4.2.5 RMP WM013-070: ringfort

RMP WM013-070 is located in Ballynacor townland, approximately 630m south west of the proposed road upgrade works. It takes the form of an oval shaped area (approximate diameter 26m east/west x 20m north/south) enclosed by two earth and stone banks with an intervening fosse. The outer bank and fosse have been levelled at the east by a north/south oriented field fence. There is a 3.4m wide entrance gap and 1.8m wide causeway across the fosse at east north east.

10.4.2.6 RMP WM013-071 and RMP WM013-071001: ringfort and hut site

RMP WM013-071 and RMP WM013-071001 are located in Ballynacor townland, approximately 610m south west of the proposed road upgrade works and 900m west of the access road leading to Turbine 1. RMP WM013-071 (ringfort) is a circular shaped area (approximate diameter 30m north/south x 29m east/west) enclosed by a poorly preserved earthen bank and wide external fosse. There is a 1.2m wide entrance gap

at north. A possible hut site (WM013-071001) at the centre of the interior is visible as a rectangular shaped platform.

10.4.2.7 RMP WM013-073: ringfort

RMP WM013-073 is located approximately 360m south of the proposed road upgrade works and 690m west of the access road leading to Turbine 1 in Ballynacor townland. It takes the form of a large circular slightly raised area (approximate diameter 40m north west/south east x 39m north east/south west) enclosed by two earthen banks, an intervening fosse and an outer fosse. The inner bank is well preserved, while the outer bank is visible from north west to north east and from south east to south west with a slight outer fosse from north east to north west. There is a possible 1.5m wide entrance gap at south east.

10.4.2.8 RMP WM013-104: ringfort

RMP WM013-104 is located in Bracklin townland, approximately 1km south of the access road leading to Turbine 1. It is situated on a rise of ground surrounded by undulating grassland. It takes the form of a circular shaped area (approximate diameter 34m north east/south west) enclosed by two poorly preserved earth and stone banks, with an intervening fosse and external fosse. The inner bank has been levelled and is mostly reduced to a scarp. The inner fosse is wider from north west to east north east, and there is an intervening space 9m wide between the inner fosse and outer bank on the northern side of the monument.

10.4.2.9 RMP WM013-105: ringfort

RMP WM013-105 is located approximately 850m south west of the access road leading to Turbine 1 in Bracklin townland. It is situated on a rise of ground surrounded by undulating grassland. It is a circular shaped area (approximate diameter 32m north/south) enclosed by a poorly preserved bank of earth and stone with an external fosse. The fosse is best preserved from north to north east. There is an entrance gap at the west. The interior rises towards the centre.

10.4.2.10 RMP WM014-017: tower house

RMP WM014-017 is recorded in Martinstown townland, approximately 930m north east of the access road leading to Turbine 1. It is a well preserved three-storey tower house (external dimensions 12.4m east/west x 9.3m north/south) with a small projecting garderobe tower on the north east angle. The walls of the castle are constructed with rubble limestone with dressed alternating long and short quoins rising from a prominent base-batter. The dressed quoins and the stone from the base batter have been robbed out up to first floor level. The castle is entered through a broken out doorway in the west end of the south wall which gives access to the ground floor. Directly inside the entrance to the west is a doorway which leads to a mural stairs in the west wall giving access to the upper floors.

The ground floor of the castle is lit by a single light double-ope window in the north and east wall. Access to the first floor with vaulted roof is from the mural stairs in the west wall. A fireplace is located in the south wall on the second floor, and a mural stairs leads to the floor above. The garderobe in the north east angle is accessed from the first and second floor chambers. At second floor level there is a mural chamber in the south west corner. A flat-faced carved head is visible in the external face of the north wall. A series of earthen banks forms a field system around the tower house which are visible on aerial photographs.

10.4.2.11 RMP WM014-018: tower house

RMP WM014-018 is located approximately 750m west of Turbine 3 in Bracklin townland. Bracklyn House may have been built on the site of the Medieval castle of Bracklyn, however there is no physical evidence to support this suggestion as there is no trace of a castle or any Medieval fabric visible in the present Bracklyn House. The present house is often referred to as “Bracklyn Castle” (www.archaeology.ie), which suggests it was built on or close to the site of the Medieval castle. Bracklyn Castle was built as a residence for the Nugent family of Moyrath who were descended from William, 1st baron of Delvin. In 1559-1560 the Crown recorded a “*livery to Edward, son and heir of Thomas Nugent, late of [Brack]lyne*” (www.archaeology.ie). The castle and lands passed from the Nugent's into the possession of the Pakenham family, who sold the castle and estate to the Featherston family. A castle is depicted on the Down Survey map of Killulagh parish, and the terrier recorded that “*In Bracklyne there is a castle in repaire with an orchard & garden & some ash trees*” (www.archaeology.ie). On this map the castle stood on lands belonging in 1641 to Edward Nugent who is listed as an “*Irish Papist*”.

10.4.2.12 RMP WM014-019: ringfort

RMP WM014-019 is located approximately 140m north of Turbine 3 in Bracklin townland. It takes the form of a sub-circular shaped area (approximate diameter 30m north/south x 28m east/west) enclosed by three earthen banks, two intervening fosses and an outer fosse. The outer bank and fosse are poorly preserved, and have been levelled at the east and south. There is an entrance gap in the inner bank at the south west, and a second possible entrance at the south east. The monument is covered in a plantation of conifers.

10.4.2.13 RMP WM014-023: field system

RMP WM014-023 is centered on a point approximately 200m west of Turbine 11 in Bracklin townland. An aerial photograph shows various cropmarks scattered throughout the field, which was an old forest annotated as “*Crooked Wood*” on the First Edition 1:10,560 Ordnance Survey map (1838). (Cropmarks are earthworks that have been physically removed above-ground, and due to subsoil conditions are revealed through aerial photography). Visible on the aerial photograph is the cropmark of a linear earthwork in the north east corner of the field, which could be the remains of an old roadway (www.archaeology.ie). To the south of the linear earthwork in the east corner of the field is the cropmark of a large rectangular earthwork. To the west of this rectangular cropmark and located in the bottom centre of the photo in the south quadrant of the field is the cropmark of a circular shaped enclosure with a D-shaped annex on the side. This could be the cropmark of a levelled ringfort with an annexe. To the west of this cropmark is the curving line of a ditch running north towards the north west corner of the field, where there appears to be the cropmark of a large circular-shaped enclosure.

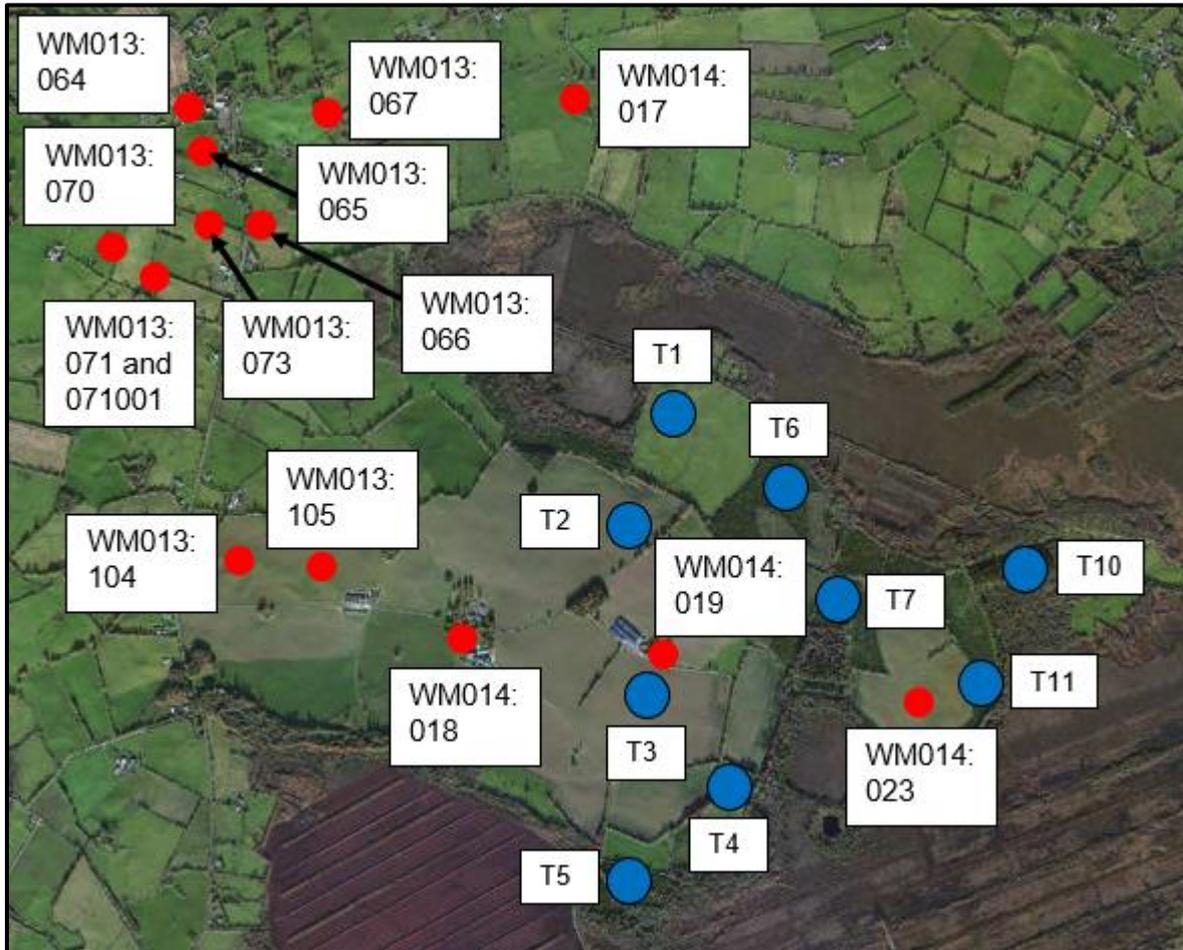


Figure 10.4: Recorded Monuments within 1km of the Proposed Wind Farm

There are no Recorded Monuments within 100m of the proposed grid connection.

There are no Recorded Monuments within any areas of land take required for the proposed road upgrade works.

10.4.3 Cartographic Analysis

10.4.3.1 Ordnance Survey Maps: First Edition 1:10,560 (1838) (see **Figure 10.5**); First Edition 1:2,500 (1911-1913) and Third Edition 1:10,560 (1914) (see **Figure 10.6**)

The proposed grid connection crosses a townland, parish, barony and county boundary. Recent research suggests that:-

“hoards and single finds of Bronze Age weapons, shields, horns, cauldrons and gold personal objects can all be shown to occur on boundaries” (Kelly 2006, 28).

All of the proposed turbines are within the footprint of Bracklyn Demesne as recorded on the First Edition 1:10,560 map (1838). Five structures are recorded north of Turbine 1, with the closest being approximately 110m from the location of the proposed turbine. These structures are shown on later editions of the Ordnance Survey maps, where they are recorded as “*The Burrough*”, but they no longer survive above-ground. A small east/west oriented structure is recorded approximately 50m east of the access track leading to Turbines 3 and 4. This structure is not recorded on later editions of the Ordnance Survey maps, and it no longer survives above-ground. The access track

from Turbine 6 to Turbine 10 is recorded along the line of the “Camoge River” on the First Edition 1:10,560 map. Turbine 11 is recorded within “Crooked Wood” on all Editions of the historic maps.

A “Spring” and three small structures are recorded a short distance south west of the proposed access track leading to Turbine 1 on the First Edition 1:2,500 map. “The Burrough” is recorded approximately 110m north east of Turbine 1, and it takes the form of 15 small structures, seven of which are conjoined. These structures no longer survive above-ground. The line of an informal foot path, which leads to “The Burrough”, is recorded in the location of Turbine 1. A “Foot Stick” (foot bridge) is recorded along the line of the access track between Turbines 1 and 2. A “Spring” is recorded immediately south of the access track leading to Turbine 3.

There are no differences recorded within the development area between the Third Edition 1:10,560 map and the First Edition 1:2,500 map.

All three Editions of the Ordnance Survey maps record a number of vernacular structures, associated farm tracks, wells, bench marks, etc. in the general vicinity of the proposed grid connection.

There are no archaeological features recorded within the land take/footprint of the proposed wind farm on historic cartographic sources.

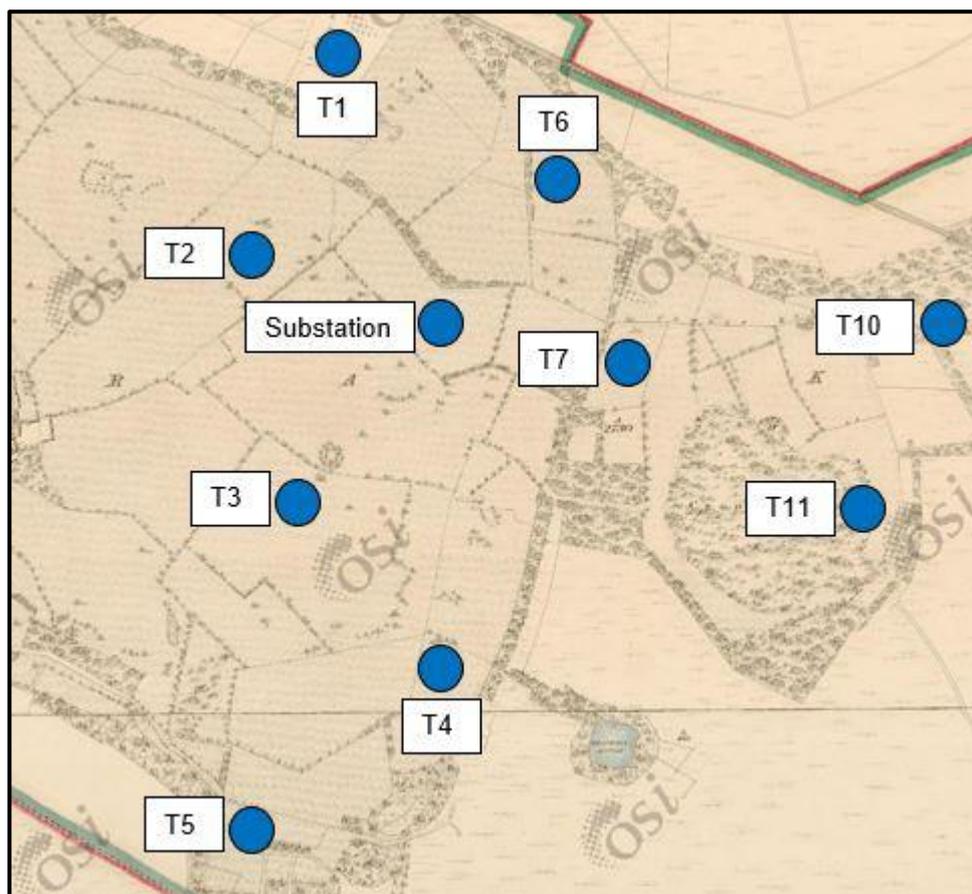


Figure 10.5 Extract from First Edition Ordnance Survey map (1838), showing location of Turbines 1 – 7, Turbines 10 – 11 and Substation

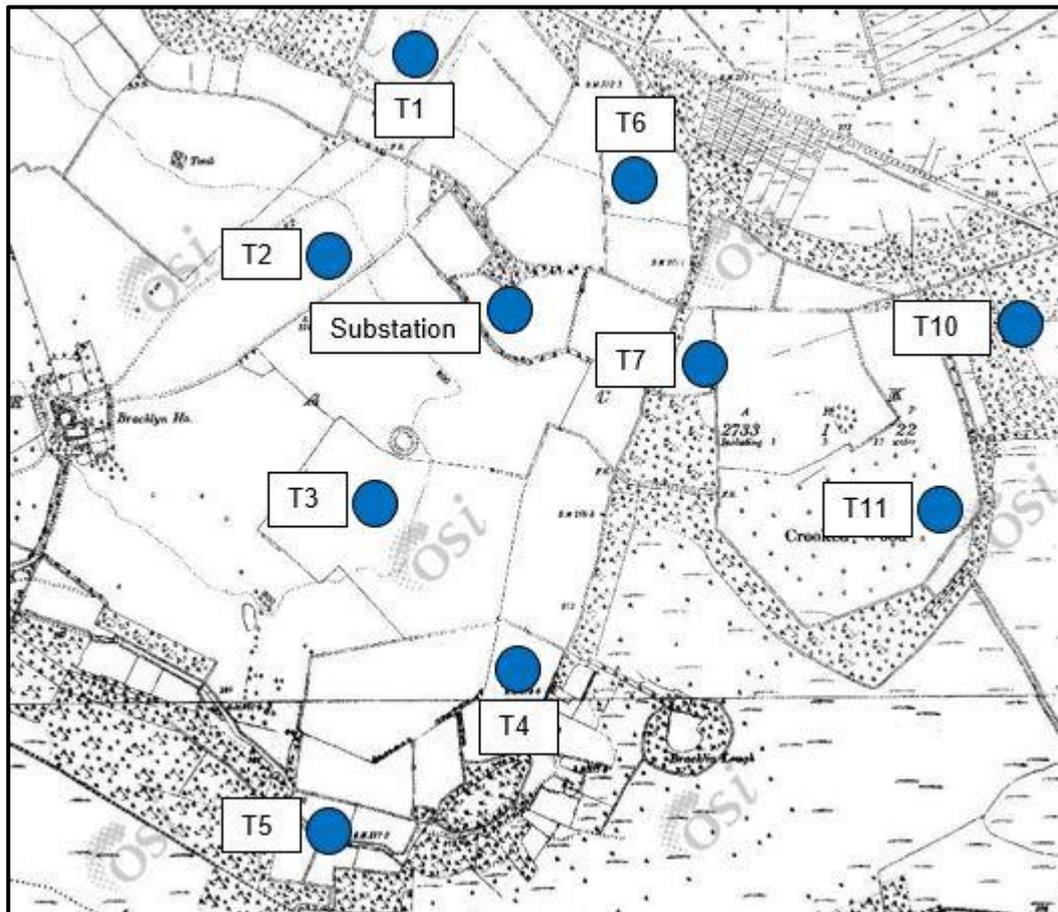


Figure 10.6: Extract from Third Edition Ordnance Survey map (1914), showing location of Turbines 1 – 7, Turbines 10 – 11 and Substation

10.4.4 Aerial Photographs

Aerial photographs held by Ordnance Survey Ireland (map.geohive.ie) and Bing aerial photography (www.bing.com/maps) were consulted to examine for the presence of archaeological and architectural remains within the land take of the proposed development.

Aerial photography records a similar landscape to that which was noted during the walkover surveys, with the proposed turbines and associated access tracks located in large fields and modern forestry enclosed by mature field boundaries.

RMP WM014-023, which is the cropmark of an extensive field system revealed through aerial photography (**Figure 10.7**), is not highlighted on any of the Ordnance Survey Ireland aerial photography or Bing aerial photography. Turbine 11 would appear to be located immediately outside a cropmark of a possible large rectangular earthwork as recorded by National Monuments Service (www.archaeology.ie). A small sub-rectangular cropmark appears to be recorded immediately west of the proposed access track leading to Turbine 11.

There was no evidence of any additional archaeological or any architectural features recorded on aerial photography within the proposed wind farm.

There was no evidence of any archaeological or architectural features recorded on aerial photography within the proposed grid connection or road upgrade works.



Figure 10.7: Aerial photograph of RMP WM014-023 (field system. After www.archaeology.ie)

10.4.5 Topographical Files of the National Museum of Ireland

Information on artefact finds and excavations from County Westmeath and County Meath is recorded by the National Museum of Ireland. Location information relating to such finds is important in establishing prehistoric and historic activity in the study area.

There are no entries recorded in the Topographical Files within the land take of the proposed development.

There is one entry recorded in Bracklin townland, centered on a point approximately 1.2km south east of Turbine 11. It is recorded (National Museum of Ireland reference 1959:09) as a Neolithic pottery vessel, but no further information is provided (www.heritagemaps.ie).

Bog butter (National Museum of Ireland reference IA/120/2004) is recorded centered on a point approximately 950m south west of Turbine 5, but no further information is provided (www.heritagemaps.ie).

A human skeleton (National Museum of Ireland reference 1966:35 [A-]) is recorded centered on a point approximately 410m north of the proposed grid connection, but no further information is provided (www.heritagemaps.ie). This site is recorded as RMP ME035-001 (burial).

Unburnt human bones (National Museum of Ireland references 1958:132 and 1961:135) are recorded centered on a point approximately 110m west of the proposed road upgrade works, but no further information is provided (www.heritagemaps.ie). This site is recorded as RMP WM013-064 (flat cemetery) and is discussed at **Section 10.4.2** above.

An account of the discovery of two human skeletons at Ballynacor townland was published in a local newspaper in May 1934. No further information is available.

Human remains were discovered in April 1966 in a sandpit in Coolronan townland, near Ballivor, County Meath. Five skeletons were discovered, and they were reported to have been arranged in a row about 0.30m apart and at a depth of approximately 0.46m below ground level. No further information is available. (This may be the same site as National Museum of Ireland reference 1966:35 [A-] referred to above).

10.4.6 Previous Archaeological Fieldwork

Reference to Summary Accounts of Archaeological Excavations in Ireland (www.excavations.ie) confirmed that no fieldwork programmes have been carried out within the proposed development.

A peatland survey was carried out in 2005 (License number 05E0792), partially within Coolronan townland. No archaeological features or artefacts were recorded.

A second peatland survey was carried out in 2005 (License number 05E0793) in Bracklin bog, located within Bracklin and Coolronan townlands. No archaeological features or artefacts were recorded during the survey of the bog.

Three fieldwork projects are recorded as having been carried out in Ballynacor townland, all of which were associated with a road realignment between Delvin and Mullingar. One of these fieldwork projects was also located in Billistown townland. No archaeological features were revealed as a result of carrying out the fieldwork.

Four fieldwork projects are recorded as having been carried out in Ballagh townland. No archaeological features were revealed as a result of carrying out the fieldwork.

10.4.7 Toponyms

Townland names are an important source in understanding the archaeology, geology, land-use, ownership and cultural heritage of an area. The proposed development is located within the following townlands.

Name	Irish	Translation
Ballagh	<i>An Bealach</i>	Translates as road or pass
Ballynacor	<i>Baile na Cora</i>	Possibly translates as townland of the weir, stone fence or ford
Billistown	<i>Baile na mBilí</i>	Not recorded
Bracklin	<i>Breaclainn</i>	Possibly translates as speckled place or speckled pasture

Coolronan	Cúil Rónáin	Possibly translates as Ronan's back or corner
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Table 10.2: Toponyms

10.4.8 National Monuments

The Department of Housing, Local Government and Heritage maintains a database on a county basis of National Monuments in State Care: Ownership and Guardianship. The term National Monument is defined in Section 2 of the National Monuments Act (1930) 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” (www.archaeology.ie).

There are no National Monuments in State Care within the proposed development site or within 1km of the proposed development.

There are two National Monuments in State Care within the 5km study area; a tower house (National Monument Number 481/RMP WM014-002) located in Delvin, approximately 3km north of the access track leading to Turbine 1 (**Figure 10.8**), and a ringfort (National Monument Number 572/RMP WM020-131) located in Raharney, approximately 4.7km south west of Turbine 5 (**Figure 10.9**).

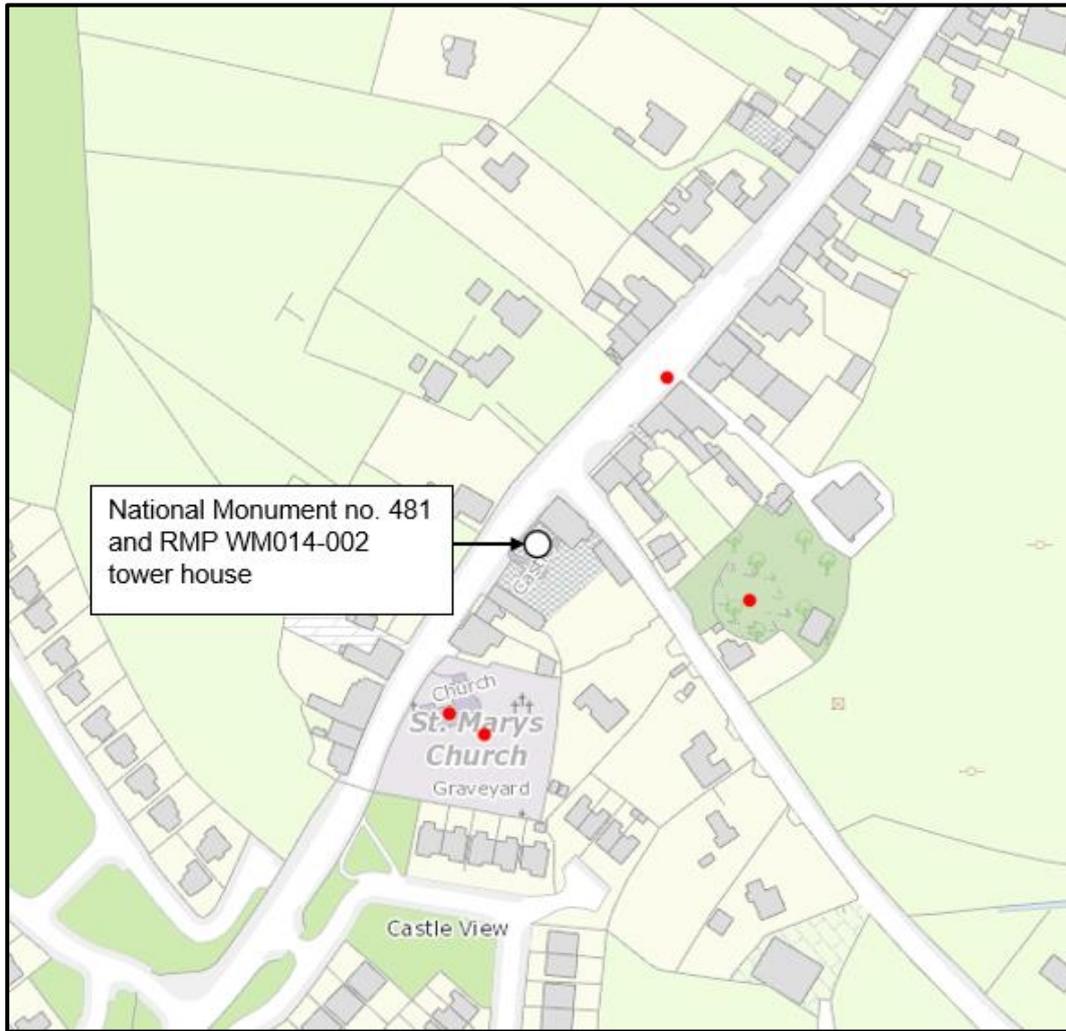


Figure 10.8: National Monument no. 481 located in Delvin, approximately 3km north of the access track leading to Turbine 1



Figure 10.9: National Monument no. 572 located in Raharney, approximately 4.7km south west of Turbine 5

The Department of Housing, Local Government and Heritage also maintains a database on a county basis of National Monuments with Preservation Orders or Temporary Preservation Orders.

There are no National Monuments with Preservation Orders or Temporary Preservation Orders within the proposed development or within 5km of the proposed development.

There are no World Heritage Sites or sites included in the Tentative List as being under consideration for nomination to the World Heritage List within the proposed development or within 5km of the proposed development. Kells is the closest site included in the Tentative List as being under consideration for nomination to the World Heritage List, and it is located 21km north east of the proposed development.

10.4.9 County Development Plans

10.4.9.1 Archaeological Heritage

Westmeath County Development Plan 2021 - 2027

It is a policy (CPO 14.6) of Westmeath County Council (Westmeath County Council 2021, 435) to:-

“Seek to ensure the protection of archaeological sites and monuments and their settings and archaeological objects that are listed in the Record of Monuments and Places, in the ownership/guardianship of the State, or that are the subject of Preservation Orders or have been registered in the Register of Historic Monuments. Seek to ensure the protection and preservation of archaeological sites, which have been identified subsequent to the publication of the Record of Monuments and Places”.

It is also a policy (CPO 14.7) of Westmeath County Council (*ibid.*) to:-

“Ensure that any development adjacent to an archaeological monument or site shall not be detrimental to the character of the archaeological site, or its setting and shall be sited in a manner which minimises the impact on the monument and its setting. Development which is likely to detract from the setting of such a monument or site will not be permitted”.

There are no Zones of Archaeological Potential (*ibid.*, 434) recorded in the Westmeath County Development Plan within the proposed development or within 5km of the proposed development.

Table 14.1 of the Westmeath County Development Plan (*ibid.*) contains a list of *National Monuments in State Care* within County Westmeath. There are no National Monuments in State Care recorded in the Westmeath County Development Plan within the proposed development or within 1km of the proposed development. There are two National Monuments in State Care recorded in the Westmeath County Development Plan within 5km of the proposed development, and these are referred to above at **Section 10.4.8 (Figures 10.8 and 10.9)**.

There are no structures recorded on the Westmeath Industrial Heritage Survey (Westmeath County Council 2019) within the proposed development.

Meath County Development Plan 2013 – 2019

There are no National Monuments in State Care recorded in the Meath County Development Plan (Meath County Council 2013, Appendix 11) within 5km of the proposed development.

There are no monuments listed in the Register of Historic Monuments recorded in the Meath County Development Plan (*ibid.*) within 5km of the proposed development.

10.4.9.2 Architectural Heritage

Westmeath County Development Plan 2021 - 2027

It is a policy objective (CPO 14.27) of Westmeath County Council (Westmeath County Council 2021, 440) to:-

“Protect and conserve buildings, structures and sites contained in the Record of Protected Structures and to encourage the sympathetic re-use and long-term viability of such structures without detracting from their special interest and character”.

It is also a policy objective (CPO 14.28) of Westmeath County Council (*ibid.*) to:-

“Protect the architectural heritage of Westmeath through the identification of Protected Structures, the designation of Architectural Conservation Areas (ACAs), the safeguarding of designed landscapes and historic gardens, and the recognition of structures and elements that contribute positively to the vernacular and industrial heritage of the County”.

Volume 8 of the Westmeath County Development Plan (*ibid.*) contains the Record of Protected Structures for County Westmeath.

There are no Protected Structures recorded in the Westmeath County Development Plan within the proposed development.

There are 3 no. Protected Structures within the landholding boundary associated with the proposed development (**Figure 10.10**):-

- Gate lodge, Bracklyn House (RPS no. 013-021) c. 1.8km from Turbines 2, 3 and 5;
- Bracklyn House (RPS no. 014-019) c. 750m west of Turbine 3; and
- Freestanding mausoleum, Bracklyn House (RPS no. 014-020) c. 140m south of the access track leading to Turbine 1 and c. 370m west of Turbine 2.



Figure 10.10: Three Protected Structures (also NIAH structures) associated with Bracklyn Demesne

There are an additional 54 no. Protected Structures recorded in the Westmeath County Development Plan within 5km of the proposed development:-

- Clonyn Castle (RPS no. 013-001) c. 3.1km north west of the access track leading to Turbine 1;
- Bank of Ireland, Delvin (RPS no. 014-001) c. 2.8km north of the access track leading to Turbine 1;
- House and shop (pharmacy), Delvin (RPS no. 014-002) c. 2.8km north of the

- access track leading to Turbine 1;
- House, Delvin (RPS no. 014-003) c. 3km north of the access track leading to Turbine 1;
 - Church of the Assumption, Delvin (RPS no. 014-004) c. 3.1km north of the access track leading to Turbine 1;
 - Parochial House, Delvin (RPS no. 014-005) c. 3.2km north of the access track leading to Turbine 1;
 - St. Mary's Church of Ireland church, Delvin (RPS no. 014-006) c. 2.7km north of the access track leading to Turbine 1;
 - Post office, Delvin (RPS no. 014-007) c. 2.8km north of the access track leading to Turbine 1;
 - House and shop (Ulster Bank), Delvin (RPS no. 014-008) c. 2.8km north of the access track leading to Turbine 1;
 - House, Delvin (RPS no. 014-009) c. 2.8km north of the access track leading to Turbine 1;
 - House and shop (Fitzsimons), Delvin (RPS no. 014-010) c. 2.8km north of the access track leading to Turbine 1;
 - House and shop, Delvin (RPS no. 014-011) c. 2.9km north of the access track leading to Turbine 1;
 - Roselawn House, Delvin (RPS no. 014-012) c. 2.8km north of the access track leading to Turbine 1;
 - House (former Delvin Rectory), Delvin (RPS no. 014-013) c. 2.5km north of the access track leading to Turbine 1;
 - Union Workhouse graveyard, Delvin (RPS no. 014-014) c. 2.3km north of the access track leading to Turbine 1;
 - Gateway, Clonyn Castle, Delvin (RPS no. 014-015) c. 3.1km north of the access track leading to Turbine 1;
 - Gateway, Rosemead House, Rosemead (RPS no. 009-034) c. 5km north of the access track leading to Turbine 1;
 - Reynella House (RPS no. 013-009) c. 4.7km south west of the access track leading to Turbine 1;
 - Outbuildings, Reynella House (RPS no. 013-010) c. 4.6km south west of the access track leading to Turbine 1;
 - Gate Lodge, Reynella House (RPS no. 013-011) c. 4.5km south west of the access track leading to Turbine 1;
 - St. John the Baptist Roman Catholic church (RPS no. 013-012) c. 3.6km west of the access track leading to Turbine 1;
 - Dysart House (RPS no. 013-013) c. 2.9km north west of the access track leading to Turbine 1;
 - Gate Lodge, Dysart House (RPS no. 013-014) c. 2.2km west of the access track leading to Turbine 1;
 - Gateway, Dysart House (RPS no. 013-015) c. 2.2km west of the access track leading to Turbine 1;
 - Rockview House (RPS no. 013-016) c. 1.6km west of the access track leading to Turbine 1;
 - Outbuildings, Rockview House (RPS no. 013-017) c. 1.7km west of the access track leading to Turbine 1;
 - Gateway, Outbuildings, Rockview House (RPS no. 013-018) c. 1.7km north west of the access track leading to Turbine 1;
 - Killagh corn mill (RPS no. 013-019) c. 3.1km west of Turbine 5;

- Killagh House (RPS no. 013-020) c. 3km west of Turbine 5;
- South Hill, (St. Mary's Hospital) (RPS no. 014-016) c. 3.7km north of Turbine 1;
- Outbuildings, St. Mary's Hospital (RPS no. 014-017) c. 3.8km north of Turbine 1;
- House (RPS no. 014-018) c. 3.6km north of Turbine 1;
- Electricity sub-station (RPS no. 014-021) c. 2.2km north of Turbine 1;
- Lisclogher Bridge (RPS no. 014-022) c. 4km north east of Turbine 10;
- Lisclogher House (RPS no. 014-023) c. 4.3km north east of Turbine 10;
- Outbuildings, Raynella Cottage (RPS no. 020-032) c. 4.8km west of Turbine 5;
- Creggstown House (RPS no. 020-042) c. 4.5km south west of Turbine 5;
- Water pump (RPS no. 020-043) c. 2.4km south west of Turbine 5;
- Craddenstown House (RPS no. 020-044) c. 1.9km south west of Turbine 5;
- Corbetstown House (RPS no. 020-045) c. 3.6km south west of Turbine 5;
- House (RPS no. 020-046) c. 3.2km south west of Turbine 5;
- Water pump (RPS no. 020-051) c. 3.8km south west of Turbine 5;
- Narrow gauge Bord na Móna railway line (RPS no. 021-008) centered on a point c. 4.5km south east of Turbine 11;
- Grange More House (RPS no. 021-009) c. 2.9km south of Turbine 5;
- Joristown House (RPS no. 020-027) c. 4.6km south west of Turbine 5;
- St. Brigid's Roman Catholic chapel (RPS no. 020-028) c. 4.3km south west of Turbine 5;
- Houses, Joristown Upper (RPS no. 020-029) c. 4.3km south west of Turbine 5;
- Gateway, Grangemore House (RPS no. 021-001) c. 4.1km south of Turbine 5;
- Riverside House (RPS no. 021-002) c. 4.3km south of Turbine 5;
- Bridge (RPS no. 021-003) c. 4.3km south of Turbine 5;
- Gateway (RPS no. 021-004) c. 4.2km south of Turbine 5;
- Graveyard (RPS no. 021-005) c. 4.5km south of Turbine 5;
- House (RPS no. 021-006) c. 4.2km south of Turbine 5; and
- House (RPS no. 021-007) c. 4.3km south of Turbine 5.

There are no Protected Structures recorded in the Westmeath County Development Plan along or within 100m of the proposed grid connection.

There are no Protected Structures recorded in the Westmeath County Development Plan within the proposed road upgrade works or within 100m of the proposed road upgrade works.

There are no Architectural Conservation Areas recorded in the Westmeath County Development Plan (*ibid.*, 442) within the proposed development site or within 5km of the proposed development.

It is a policy objective (CPO 14.50) of Westmeath County Council (*ibid.*, 444) to:-

“Support the economic viability of parks, gardens and demesnes by encouraging high quality development that does not lead to the loss of, or cause harm to the character, the principal components of, or the setting of parks, gardens and demesnes of special historic interest”.

It is also a policy objective (CPO 14.52) of Westmeath County Council (*ibid.*) to:-

“Require a masterplan to be prepared for development proposals within historic designed and demesne landscapes. Such a plan should include an appraisal of the designed landscape together with an architectural appraisal, in order to inform design proposals, which must be sensitive to and respect the built

heritage elements and green space values of the site".

Meath County Development Plan 2013 – 2019

There is 1 no. Protected Structure recorded in the Meath County Development Plan (Meath County Council 2013, Appendix 8) within 5km of the proposed development:-

- Woodtown House (RPS no. 029-100) c. 4.8km north east of Turbine 10.

There are no Protected Structures recorded in the Meath County Development Plan along or within 100m of the proposed grid connection.

There are no Architectural Conservation Areas recorded in the Meath County Development Plan (*ibid.*, Appendix 9) within 5km of the proposed development.

10.4.9.3 Cultural Heritage

Westmeath County Development Plan 2021 - 2027

It is a policy objective (CPO 14.2) of Westmeath County Council (Westmeath County Council 2021, 433) to:-

"Promote the understanding of cultural heritage in terms of its inherent and unique character and to recognise what elements should be preserved, conserved or enhanced".

There is 1 no. Special Heritage Area (Fore Village) designated within the Westmeath County Development Plan (*ibid.*, 436 -437). This Special Heritage Area is not within the proposed development site or within 5km of the proposed development.

Meath County Development Plan 2013 – 2019

There are no designated Cultural Heritage features recorded in the Meath County Development Plan (Meath County Council 2013) within 5km of the proposed development.

Following a review of the *Draft Meath County Development Plan 2021 - 2027* (Meath County Council 2021), it is considered that there have been no substantive changes to objectives or policies relating to the protection of archaeological, architectural or cultural heritage sites.

10.4.10 National Inventory of Architectural Heritage

10.4.10.1 Building Survey

The National Inventory of Archaeological Heritage (NIAH) maintains a non-statutory register of buildings, structures etc. recorded on a county basis (www.buildingsofireland.ie).

There are no structures recorded on the NIAH within the land take of the proposed development.

There are 3 no. structures recorded on the NIAH within the landholding boundary associated with the proposed development (**Figure 10.10**) (these three NIAH structures are also recorded as Protected Structures):-

- Gate lodge, Bracklyn House (NIAH Reg. no. 15401322) c. 1.8km from Turbines 2, 3 and 5;
- Bracklyn House (NIAH Reg. no. 15401405) c. 750m west of Turbine 3; and
- Freestanding mausoleum, Bracklyn House (NIAH Reg. no. 15401406) c. 140m

south of the access track leading to Turbine 1 and c. 370m west of Turbine 2.

There are no additional NIAH structures within 1km of the proposed wind farm.

There are no structures recorded on the NIAH along or within 100m of the proposed grid connection.

There are no structures recorded on the NIAH within the proposed road upgrade works or within 100m of the proposed road upgrade works.

10.4.10.2 Historic Gardens and Designed Landscapes

The proposed wind farm and associated infrastructure would be located within Bracklyn Demesne. A detailed assessment of the historical significance of Bracklyn Demesne and its associated Protected Structures has been undertaken by Headland Archaeology and is provided at **Annex 10.1**.

The western end of the proposed grid connection is located in Bracklyn Demesne. There are no additional historic gardens recorded on the NIAH along or within 100m of the proposed grid connection.

There are no historic gardens recorded on the NIAH within the proposed road upgrade works.

10.4.11 Site Visit

Field inspection is necessary to determine the extent, character and condition of archaeological, architectural and cultural heritage features, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information. Site visits were undertaken on 12 March 2020 and 1 February 2021 in dry weather conditions.

Areas of land take associated with Turbines 1 – 7, Turbine 10 and Turbine 11, their associated access tracks and associated infrastructure were shown to be as recorded on recent aerial photography, with the proposed development site being a combination of large rolling pasture fields and modern forestry with deep, wide drains.

No archaeological, architectural or cultural heritage features were revealed within the footprint of the proposed wind farm as a result of carrying out the walkover surveys.

The proposed grid connection was assessed by means of a windshield survey and walkover survey. No archaeological, architectural or cultural heritage features were revealed within the land take of the proposed grid connection as a result of carrying out the windshield survey or walkover survey.

The area of land take required for the road upgrade works was assessed by means of a walkover survey. No archaeological, architectural or cultural heritage features were revealed within the land take of the road upgrade works as a result of carrying out the walkover survey.



Plate 10.1: Location of Turbine 1



Plate 10.2: Location of Turbine 2



Plate 10.3: Location of Turbine 3



Plate 10.4: Location of Turbine 4



Plate 10.5: General location of Turbine 6



Plate 10.6: General location of Turbine 7



Plate 10.7: Location of Turbine 11



Plate 10.8: Bracklyn Gate Lodge



Plate 10.9: RMP WM013-104 (ringfort)



Plate 10.10: RMP WM013-105 (ringfort)



Plate 10.11: RMP WM014-023 (field system)

10.5 Description of Likely Effects

All elements of the proposed development are assessed as having the potential to affect or impact upon archaeological, architectural or cultural heritage features either during the construction phase through excavations, or through visual effects during the operational phase.

Construction phase effects may arise as a result of the development of turbine foundations and hardstand areas, access tracks, underground cabling, grid connection works, road upgrade works and associated activities; each of which will involve the mechanical excavation of overburden down to and through geologically deposited strata at their identified locations. Operational phase effects may arise as a result of the visual effects resulting from the presence of the proposed wind turbines in the landscape.

As a result of carrying out this assessment, the following likely archaeological, architectural and cultural heritage direct, indirect, construction, operational, cumulative and residual effects have been assessed. The following sections undertake an assessment of all elements of the proposed development described in **Chapter 3**.

10.5.1 Construction Phase Effects

10.5.1.1 Archaeological Resource

There are no Recorded Monuments, Protected Structures, Architectural Conservation Areas, NIAH structures or any additional statutorily protected archaeological, architectural or cultural heritage features within the footprint of the proposed

development. While there are 2 no. Recorded Monuments within the planning application boundary, there will be no construction activities undertaken within the extents of these RMPs. As a result, there will be no direct or indirect construction phase effect on the recorded archaeological resource.

There are 14 no. Recorded Monuments within 1km of the proposed development. There are no Recorded Monuments within 100m of the proposed grid connection. There are no Recorded Monuments within 100m of the proposed road upgrade works.

It is assessed that there will be a likely permanent, direct and imperceptible construction phase effect on any previously unrecorded archaeological remains that may exist within the proposed development site and which may be discovered during the construction phase.

It is assessed that there will be a likely temporary, reversible and imperceptible visual and noise effect on the archaeological resource during the construction phase.

10.5.1.2 Architectural Resource

There are no protected architectural features within the footprint of the proposed development. As such, it is assessed that there will be no likely direct or indirect construction phase effect on the architectural resource.

10.5.1.3 Cultural Heritage Resource

There are no protected cultural heritage features within the footprint of the proposed development. As such, it is assessed that there will be no likely direct or indirect construction phase effect on the cultural heritage resource.

10.5.2 Operational Phase Effects

10.5.2.1 Archaeological Resource

It is assessed, based on analysis of photomontages prepared for the proposed development (**Annex 9.1**), that there will be a likely long-term, reversible and significant operational phase visual effect on the 2 no. Recorded Monuments located within the planning application boundary, although one of these Recorded Monuments (RMP WM014-023- field system) is only recorded on aerial photography and does not survive above-ground. This assessment has been reached predominately as a result of the visual effects which the operational development would likely exert on the Recorded Monuments due to their proximity. However, given that the proposed development would be operational for a period of 30-years, the effect is not assessed to be long-term in the context of the lifetime of the Recorded Monuments and any effects are entirely reversible and will be reversed following the decommissioning phase.

It is assessed, based on analysis of photomontages prepared for the proposed development (**Annex 9.1**), that there will be a likely long-term, reversible and moderate operational phase visual effect on the additional 12 Recorded Monuments located within the wind farm 1km study area. Similarly, this assessment has been reached due to the proximity of the proposed development to these Recorded Monuments; however, the reduced magnitude of effects is a direct consequence of increased separation distance. Any moderate effects which may occur will be reversed during the decommissioning phase.

There are 2 no. National Monuments in State Care within the 5km study area. It is

assessed, based on analysis of photomontages prepared for the proposed development (**Annex 9.1**), that there will be a likely long-term, reversible and imperceptible operational phase visual effect on these National Monuments in State Care due to intervening separation distance. Following decommissioning, any imperceptible effects will be reversed.

10.5.2.2 Architectural Resource

It is assessed, based on analysis of photomontages prepared for the proposed development (**Annex 9.1**) and more specifically the photomontage provided at **Annex 10.2**, that there will be a likely long-term (but not permanent), reversible and moderate operational phase visual effect on Bracklyn House and a likely long-term (but not permanent), reversible and slight operational phase visual effect on the Gate Lodge. This assessment has been reached predominately as a result of the visual effects which the operational development would likely exert on the Protected Structures/NIAH structures due to their proximity. However, given that the proposed development would be operational for a period of 30-years, the effect is not assessed to be permanent and any effects are entirely reversible and will be reversed following the decommissioning phase.

There are an additional 55 no. Protected Structures within 5km of the proposed development. It is assessed, based on analysis of photomontages prepared for the proposed development (**Annex 9.1**), that there will be a likely long-term, reversible and slight operational phase visual effect on these Protected Structures. Following decommissioning any slight effects will be reversed.

The proposed wind farm and associated infrastructure will be located within Bracklyn Demesne. It is assessed, based on analysis of photomontages prepared for the proposed development (**Annex 9.1** and **Annex 10.2**) and the assessment provided at **Annex 10.1**, that there will be a long-term, reversible and slight operational phase visual effect on the historic character of Bracklyn Demesne. However, given that the proposed development would be operational for a period of 30-years, the effect is not assessed to be long-term in the context of the lifetime of Bracklyn Demesne and any effects are entirely reversible and will be reversed following the decommissioning phase.

It is assessed, based on the assessment provided at **Annex 10.1**, that there will be no operational phase visual effect on the setting of the mausoleum located within Bracklyn Demesne.

10.5.2.3 Cultural Heritage Resource

There are no protected cultural heritage features within the footprint of the proposed development. As such, it is assessed that there will be no likely direct or indirect operational phase effect on the cultural heritage resource.

10.5.3 Decommissioning Phase Effects

It is assessed that there will be no likely decommissioning phase effects on the archaeological, architectural or cultural heritage resource. The decommissioning phase will result in the removal of wind farm infrastructure and is likely to result in an improvement in the archaeological, architectural and cultural heritage resource.

10.5.4 Cumulative Effects

Cumulative effects are defined as:-

"The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects" (Environmental Protection Agency 2017, 52).

It is assessed that there is no likelihood of the constituent components of the proposed development to act, in combination with each other, to result in cumulative effects during either of the construction, operation or decommissioning phases of development.

The proposed development will be located in close proximity to the proposed Ballivor Wind Farm. While construction of Ballivor Wind Farm will involve excavations, the fact that construction phase effects arising from either or the respective developments are unlikely to be experienced beyond its site boundary results in a limited likelihood of cumulative construction phase effects. The operation of Ballivor Wind Farm may result in a long-term, reversible and imperceptible cumulative visual effect with the proposed development.

It is assessed that there are no additional developments which could act in combination with the proposed development to result in cumulative direct or indirect construction or operational phase effects.

10.5.5 Do Nothing Effects

If the proposed development were not to proceed, there would be no likely effect on the archaeological, architectural or cultural heritage resource.

10.5.6 Interactive Effects

The excavation of soil during the construction of the proposed development may result in the discovery of previously unrecorded cultural heritage features; and, therefore, it is considered that there is a likelihood for interaction between land and soil and cultural heritage. However, on the basis of this assessment, it is concluded that the level of interaction will likely not be significant.

During the operational phase, it is assessed that the proposed development will likely result in generally slight to significant visual effects on cultural heritage features; and, therefore, will result in an interaction between cultural heritage and landscape. However, given that the proposed development would be operational for a period of 30 years, the effect is not assessed to be long-term in the context of the lifetime of the cultural heritage features and any effects are entirely reversible and will be reversed following the decommissioning phase.

10.5.7 Risk of Accidents

It is assessed that there will be no likely effects on the archaeological, architectural or cultural heritage resource as a result of any unplanned accidents which may occur during either the construction, operational or decommissioning phases.

10.5.8 Worst Case Effects

It is assessed that, under a 'worst-case' scenario, and in the absence of mitigation, there would be a likely permanent and direct construction phase effect on any previously unrecorded archaeological remains that may exist within the proposed development area.

10.6 Mitigation and Monitoring Measures

10.6.1 Mitigation Measures

- A post-consent pre-construction archaeological geophysical survey shall be carried out in all areas of land take associated with the proposed turbine bases and crane hardstands. The geophysical survey will be carried out under licence to the Department of Housing, Local Government and Heritage;
- Post-consent pre-construction test trenching shall be carried out in all areas of land take associated with the proposed turbine bases and hardstands, as well as along the access roads leading to Turbine 3 and Turbine 11. Test trenching will be carried out under licence to the Department of Housing, Local Government and Heritage and the National Museum of Ireland. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during test trenching. Test trenching will be cognisant of the results of the geophysical survey. Further recommendations, which may include preservation *in situ* or archaeological excavation, may be made on completion of the test trenching programme;
- Archaeological monitoring of all excavations associated with construction of the proposed wind farm shall be carried out. Monitoring will be carried out under licence to the Department of Housing, Local Government and Heritage and the National Museum of Ireland. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring;
- Archaeological monitoring of all excavations associated with the proposed grid connection shall be carried out. Monitoring will be carried out under licence to the Department of Housing, Local Government and Heritage and the National Museum of Ireland. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring; and
- Archaeological monitoring of all excavations associated with the proposed road upgrades shall be carried out. Monitoring will be carried out under licence to the Department of Housing, Local Government and Heritage and the National Museum of Ireland. Provision will be made for the full excavation and recording of any archaeological features or deposits that may be exposed during monitoring.

10.6.2 Micrositing

Given their proximity to existing heritage features, it is recommended that micrositing should not be considered in respect of Turbine 3 or Turbine T11 should it result in turbines being moved closer to the Recorded Monuments in these two areas.

The micrositing of other infrastructure, within the tolerances outlined in **Chapter 3**, will not result in any adverse effect on archaeological, architectural or cultural heritage features.

10.6.3 Monitoring Measures

With the exception of the mitigation measures recommended in **Section 10.6.1** which will be implemented in advance of and possibly during the construction phase, there are no future monitoring requirements.

10.7 Residual Effects

Following the implementation of the above mitigation measures, it is concluded that there will be no likely significant residual effects during the construction or decommissioning phases of the proposed development. Residual effects during the operational phase are addressed below.

10.7.1 Archaeological Resource

It is assessed that there will be a likely residual, long-term, reversible and significant operational phase visual effect on 2 no. Recorded Monuments located within the planning application boundary.

It is assessed that there will be a likely residual, long-term, reversible and moderate operational phase visual effect on the additional 12 no. Recorded Monuments located within the wind farm 1km study area.

It is assessed that there will be a likely residual, long-term, reversible and imperceptible operational phase visual effect on two National Monuments in State Care.

It is assessed that there will be no residual construction or operational phase effects on the archaeological, architectural or cultural heritage resource as a result of the works associated with the proposed grid connection.

It is assessed that there will be no likely construction or operational phase effects on the archaeological, architectural or cultural heritage resource as a result of the proposed road upgrade works.

10.7.2 Architectural Resource

It is assessed that there will be a likely residual, long-term, reversible and moderate operational phase visual effect on Bracklyn House and a likely residual, long-term, reversible and slight operational phase visual effect on the Gate Lodge.

It is assessed that there will be a likely residual, long-term, reversible and slight operational phase visual effect on 55 no. Protected Structures located within the 5km study area.

It is assessed that there will be a likely residual, long-term, reversible and slight operational phase visual effect on the historic character of Bracklyn Demesne.

10.7.3 Cultural Heritage Resource

It is assessed that there will be no likely residual effects on the cultural heritage resource.

10.8 Summary

The results of this assessment, in relation to construction, operation, decommissioning, cumulative and residual effects have been set out in the foregoing sections. This assessment has concluded that the effect on the archaeological, architectural and cultural heritage resource of the proposed development (wind farm, substation, grid connection, road upgrades works, spoil deposition areas and associated activities) will in general be long-term, reversible and will vary from imperceptible to significant.

There will be no likely significant direct or indirect construction phase or decommissioning phase effects on the recorded archaeological, architectural and cultural heritage resource. However, there will be a likely long-term, reversible and

significant operational phase visual effect on the setting of two Recorded Monuments located within the planning application boundary; a likely long-term, reversible and moderate operational phase visual effect on the setting of an additional 12 no. Recorded Monuments located within the wind farm 1km study area; and a likely long-term reversible and imperceptible operational phase visual effect on the setting of two National Monuments in State Care within the 5km study area. In addition, there will be a likely long-term, reversible and moderate operational phase visual effect on Bracklyn House and a likely long-term, reversible and slight operational phase visual effect on the Gate Lodge; a likely long-term, reversible and slight operational phase visual effect on the setting of an additional 55 no. Protected Structures within the 5km study area; and a likely long-term, reversible and slight operational phase visual effect on the historic character of Bracklyn Demesne.

Following the implementation of mitigation measures outlined in this chapter, the likely residual effects of the proposed development remains imperceptible to significant. There will be a likely residual long-term, reversible and significant operational phase visual effect on the setting of two Recorded Monuments located within the planning application boundary; a likely residual long-term, reversible and moderate operational phase visual effect on the setting of an additional 12 no. Recorded Monuments located within the wind farm 1km study area; and a likely residual long-term reversible and imperceptible operational phase visual effect on the setting of two National Monuments in State Care within the 5km study area. In addition, there will be a likely residual long-term, reversible and moderate operational phase visual effect on the setting of Bracklyn House and a likely residual long-term, reversible and slight operational phase visual effect on the setting of the Gate Lodge; a likely residual long-term, reversible and slight operational phase visual effect on the setting of an additional 55 no. Protected Structures within the 5km study area; and a likely residual long-term, reversible and slight operational phase visual effect on the historic character of Bracklyn Demesne. However, as noted above, the proposed development provides for an operational phase of 30-years and, as a result, any likely effects will be entirely reversed following the decommissioning of the proposed wind turbines.

This assessment has further concluded that the proposed development will not result in any likely significant cumulative effects with other existing, permitted or proposed development; including those identified at **Chapter 1**.

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