

14 CULTURAL HERITAGE

14.1 INTRODUCTION

The cultural heritage chapter presents the results of a cultural heritage impact assessment prepared as part of the EIAR for the proposed development.

This chapter assesses the likely significant effects of the proposed development on the archaeological, architectural and cultural heritage environment. The proposed development consists of the proposed wind farm site and the proposed temporary accommodation works on the Turbine Delivery Route (TDR). The proposed wind farm site is located across Derryaroge, Derryadd and Lough Bannow Bogs which have a combined total area of approximately 1,900 hectares and are located in south County Longford. The proposed TDR crosses Counties Westmeath, Roscommon and Longford. The layout of the proposed development was designed with consideration of the known cultural heritage, ensuring minimum impact on known above ground archaeological/architectural/cultural heritage features. Full details of the proposed development are provided in Chapter 3 (Description of the Proposed Development) of this EIAR.

Archaeological heritage generally refers to objects, monuments, buildings or landscapes of an (assumed) age typically older than AD 1700 and usually recorded as archaeological sites within the Record of Monuments and Places. The term architectural heritage applies to structures, buildings, their contents and setting of an (assumed) age, typically younger than AD 1700. Cultural heritage is applied to other aspects of the landscape such as historical events, folklore and cultural associations and can accompany archaeological and architectural designation.

Where appropriate, mitigation measures to limit likely significant effects to the cultural heritage are documented and, thereafter, residual effects are identified and assessed.

14.1.1 Statement of Authority

The cultural heritage chapter was prepared by Through Time Ltd. an archaeological consultancy company that has traded for almost thirty years. Based in Athenry, County Galway, the company is directed by licensed archaeologists Martin Fitzpatrick M.A. and Fiona Rooney B.A., members of Institute of Archaeologists of Ireland (IAI). Both have been involved in all stages of development projects from initial design, compilation of EIAs, archaeological monitoring and resolution during construction. The archaeological field survey was undertaken by Fiona Rooney and Ronan Jones, B.A. Ronan Jones is an experienced wetland archaeologist who previously worked on the archaeological excavations within the proposed wind farm site. Maria Fitzpatrick B.A. MIAI is a research assistant working over the last 2 years compiling the baseline information for cultural heritage impact assessment reports. This report has been compiled by both Fiona Rooney and Martin Fitzpatrick. Both have an in-depth knowledge of the planning systems and heritage legislation, specializing in the preparation of cultural heritage chapters for EIAR of large-scale developments and schemes, along with of expert witness services at Oral Hearing. They are competent experts for the purposes of the preparation of this EIAR.

14.1.2 Consultations

In addition to the consultation undertaken as part of the formal scoping process, a number of consultees associated with archaeology, and cultural heritage were consulted as detailed and



listed in Section 1.13 of Chapter 1 (Introduction), the Bord na Móna consultant archaeologist, Dr. Charles Mount was consulted in December, 2023. Dr. Mount responded with no comments. The National Monuments Service, Department of Housing, Local Government and Housing were consulted in February 2024 and a number of recommendations were made by the NMS (see Methodology 14.2)

A copy of all consultee responses are included in Appendix 1-5 of this EIAR.

14.1.3 Legislation, policy and guidance

The study was informed by relevant legislation, guidelines, policy, and advice notes, as listed below.

- Turf Development Acts 1946-1998;
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999;
- Code of Practice for Archaeology agreed between the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Transport Infrastructure Ireland, 2017;
- Council of Europe (1985). Convention for the Protection of the Architectural Heritage of Europe (ratified by Ireland 1997), 'Granada Convention';
- Council of Europe (1992). European Convention on the Protection of the Archaeological Heritage (ratified by Ireland 1992), 'Valetta Convention';
- Council of Europe (2005). Framework Convention on the Value of Cultural Heritage for Society, 'Faro Convention';
- Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI) (1999). Framework and Principles for the Protection of the Archaeological Heritage;
- Environmental Protection Agency (EPA) (2022). Guidelines on the information to be contained in Environmental Impact Assessment Reports, May 2022;
- Heritage Act, 1995 (as amended);
- The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 was signed by Uachtarán na hÉireann (the President of Ireland) on the 13th October 2023 however it is still pending its entry into force;
- ICOMOS (2011). Guidance on Heritage Impact Assessments for Cultural World Heritage ;
- National Monuments Act, 1930 to 2014;
- The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023;
- National Roads Authority (NRA) (2005). Guidelines for the Assessment of Archaeological Heritage;
- Planning and Development Act 2000 (as amended);
- Institute of Archaeologists (IAI) Good Practice Guidelines ¹(IAI, 2006)
- The Heritage Council (2013). Historic Landscape Characterisation in Ireland: Best Practice;
- The UNESCO World Heritage Convention, 1972;
- Transport Infrastructure Ireland (2024) Guidelines for Cultural Heritage Impact Assessment of TII National Road and Greenway Projects.

Archaeological monuments are protected through national and international policy designed to secure the protection of the cultural heritage resource. This is facilitated in accordance with the

¹<http://www.iai.ie/wp-content/uploads/2016/03/IAI-Code-of-Conduct-for-Archaeological-Assessment-Excavation.pdf>



provisions of the European Convention on the Protection of the Archaeological Heritage (Valletta Convention), which was ratified by Ireland in 1997.

The National Monuments Acts 1930 to 2014, 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. The Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 once enacted will replace the existing National Monuments Act 1930-2014.

A National Monument is described as:

“a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto”(National Monuments Act 1930 Section 2).

A number of mechanisms under the National Monuments Acts are applied to secure the protection of archaeological monuments. These include the Register of Historic Monuments, the Record of Monuments and Places and the placing of Preservation Orders and Temporary Preservation Orders on endangered sites.

The minister of the Department of Housing, Local Government and Heritage (DHLGH) 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 may also appoint the Minister or the Local Authority as guardians 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 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 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) of a monument or place included in the Record, or any other person, proposed 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 to the Minister to carry out work and shall not, except in the case of urgent necessity and with the consent of the Minister, commence the works until two months after the giving of notice”.



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

The National Inventory of Architectural Heritage ("NIAH") was established in 1990 to fulfil Ireland's obligations under the Granada Convention, through the establishment and maintenance of a central record, documenting and evaluating the architectural heritage of Ireland. Article 1 of the Granada Convention establishes the parameters of this work by defining 'architectural heritage' under three broad categories of Monument, Groups of Buildings, and Sites:

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

The Architectural Heritage and Historic Properties Act 1999 and the Planning and Development Act of 2000 are the main built heritage legislation. 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 ("NIAH") records all built heritage structures within specific counties in Ireland. The document is used to advise Local Authorities on the register of a Record of Protected Structures ("RPS") as required by the Planning and Development Act, 2000.

The Act of 2000 requires Local Authorities to establish a Record of Protected Structures to be included in the County Development Plan ("CDP"). Buildings recorded in the RPS can include Recorded Monuments, structures listed in the NIAH or buildings deemed to of architectural, archaeological or artistic importance by the Minister. Once listed in the RPS the sites/areas receive statutory protection from injury or demolition under the 2000 Act. Damage to or demolition of a site registered in the RPS is an offence. The detail of the list varies from County to County. If the Local Authority considers a building to need repair, it can order conservation and/or restoration works. The owner or developer must make a written application/request to the Local Authority to carry out any work on a protected Structure and its environs.

Fieldwork for the National Inventory of Architectural Heritage ("NIAH") for County Longford was undertaken in 2006. Where a NIAH survey has been carried out, those structures which have been attributed to a rating value of international, national or regional importance in the inventory are recommended by the Minister of Housing, Local Government and Heritage (HLGH) to the relevant planning authority for inclusion on the RPS. In accordance with Section 53 of the Planning and Development Act 2000, if a planning authority, after considering a recommendation made to it under this section, decides not to comply with the recommendation, it shall inform the Minister in writing of the reason for its decision.



Code of Practice

In 2012, a specific code of practice was agreed between the Department of Arts, Heritage and the Gaeltacht (DAHG, now replaced by the DHLGH), the National Museum of Ireland (NMI) and Bord na Móna to provide a framework within existing legislation, policy and practice. This enabled Bord na Móna to progress with its programme of peat extraction within the framework of Government strategy, whilst carrying out archaeological mitigation having regard to a set of principles and actions agreed by all parties². The Code draws from *Agreed Principles for the Protection of Wetlands Archaeology in Bord na Móna Bogs* and refers exclusively to the extraction of peat from peatlands where this extraction lies outside the scope of the Planning and Development Acts. This application falls under the remit of the Planning and Development Acts. However, the details of the code of practice are included here to highlight how archaeology and cultural heritage forms part of the current working environment of the proposed development site.

The Code is guided by the following agreed principles:

1. The Minister of AHG has a responsibility to protect the archaeological heritage and to exercise powers of preservation, under the National Monuments Acts 1930-2004, taking account of the European Convention on the Protection of the Archaeological Heritage (Valletta).
2. The Minister's statutory responsibilities include the maintenance of the *Record of Monuments and Places*, with the aim of providing protection to all known archaeological monuments including those uncovered in Bord na Móna bogs.
3. The Director of the National Museum of Ireland has a responsibility to enforce state ownership of all archaeological objects and to safeguard the treatment of all archaeological objects before their accession into the State's repository, under National Monuments Acts 1930-2004 and the National Cultural Institutions Act 1997, taking account of the European Convention on the Protection of the Archaeological Heritage (Valletta).

14.1.4 Granada Convention

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

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

² <https://www.archaeology.ie/sites/default/files/media/publications/cop-bord-na-mona-en.pdf>



Longford County Development Plan 2021-2027, Roscommon County Development Plan 2022-2028, Westmeath County Development Plan 2021-2027

Longford, Westmeath and Roscommon County Councils, all have written policies on the preservation of archaeological, architectural and cultural heritage remains in relation to permitted development in the Longford County Development Plan 2021-2027 ("the CDP"). The principal aim is to conserve, protect and enhance Longford's archaeological and cultural heritage. These policies relate to archaeological features and objects, built structures, views and scenic routes (Appendix 14.6.1, 14.6.2, 14.6.3).

Longford County Heritage Plan 2019-2024, County Roscommon Heritage Plan 2017-2021, County Westmeath Strategic Management Plan 2024-2030

A strategic plan for the protection and enhancement of the heritage of Counties Longford, Roscommon and Westmeath have been prepared. The aim is to protect, enhance and promote the rich tapestry of Heritage for the benefit of all and to safeguard it for future generations. (Appendix 14.6.4, 14.6.5, 14.6.6)

Eastern and Midlands Regional Spatial and Economic Strategy (RSES) 2019-2031

The RSES identifies the specific significance of Cultural Heritage, Architectural Heritage, Heritage Led Regeneration and Archaeological Heritage. (Appendix 14.6.7).

14.2 METHODOLOGY

This assessment methodology has involved the following elements, further details of which are provided in the following sections:

- Desk study, including review of cartographic sources, including historic mapping, aerial photography, baseline records and published information;
- Desk study of the proposed turbine delivery route (TDR) and proposed wind farm site;
- Field walkover survey of the proposed wind farm site;
- Evaluation of likely significant effects; and,
- Identification of measures to avoid and mitigate the effects.

The methodology used in this assessment is based on the EPA Guidelines (EPA 2022) on the Information to be contained in EIAR³ (May 2022) and the National Roads Authority (NRA) Guidelines for the Assessment of Archaeological Heritage Impact of National Road Schemes (hereafter referred to as the NRA Guidelines) (NRA 2005), as well as per the Institute of Archaeologists (IAI) Good Practice Guidelines⁴(IAI, 2006). Archaeological and cultural heritage sites are a non-renewable resource, and such assets are generally considered to be location sensitive. In this context, any change to their environment, such as construction activity and ground disturbance works, could adversely affect these sites.

The archaeological assessment is divided into two separate phases. Phase I involved a desktop paper survey of archaeological, historical and cartographic sources. Phase II involved a field inspection of the area of the proposed development. A description of the results of the desk-

³https://www.epa.ie/publications/monitoringassessment/assessment/EIAR_Guidelines_2022_Web.pdf

⁴<http://www.iai.ie/wp-content/uploads/2016/03/IAI-Code-of-Conduct-for-Archaeological-Assessment-Excavation.pdf>



based survey and field survey in relation to the proposed development is described in Section 14.3. A description of the results of the desk-based survey of the proposed temporary accommodation works areas on the TDR are described in Section 14.3.12.

Consultation with the National Monuments Service (NMS) of the DHLGH requested archaeological monitoring of all ground disturbance associated with the proposed development to be undertaken as part of this EIAR. (See Appendix 1-5 for all consultee responses). Archaeological monitoring of ground disturbance associated with the ground investigations was carried out in 2022 and in 2023 under licence (Licence No. 18E0177ext). The information from the monitoring has been included in the assessment. A meeting with the NMS (DoHDLGH) for the proposed development was held on the 1st of February 2024, The Department recommended the following works to be carried out at Post Consent Advance Works Stage (Refer to Appendix 1.5):

- Archaeological monitoring of the clearance of overgrown drains.
- Archaeological pre-development testing in the areas of the turbine hardstands, compounds, substations, battery storage and at entrances to the bogs.
- Archaeological monitoring of tree felling.
- Resolution of feature identified during ground investigations in 2021 along the amenity road that exits Lough Bannow Bog in the NE.
- Archaeological monitoring of all excavations associated with the infrastructure of the proposed wind farm.

An impact assessment of the potential effects of the proposed development on the archaeological, architectural or cultural heritage resource, along with mitigation measures (see Section 14.4 and 14.5).

Phase 1 - Desk Study

Archaeological and historical documents including the following were examined to establish the archaeological, architectural and cultural heritage potential of the proposed development:

The methodology involved a desk-based survey of the following archaeological, historical and cartographic sources:

- Record of Monuments and Places (“RMP”) for County Longford, County Westmeath and Co. Roscommon;
- Sites and Monuments Record (“SMR”) for County Longford, County Westmeath and Co. Roscommon;
- The Archaeological Inventories for County Longford, County Westmeath and Co. Roscommon;
- Topographical files of the National Museum of Ireland;
- Longford County Development Plan 2021-2027, Roscommon County Development Plan 2022-2028, Westmeath County Development Plan 2021-2027;
- County Longford Heritage Plan 2019-2024, County Roscommon Heritage Plan 2017-2021, County Westmeath Strategic Management Plan 2024-2030;
- National Inventory of Architectural Heritage (NIAH);
- Co. Longford Industrial Heritage Survey;
- Cartographic sources;
- Aerial photography;
- Excavation bulletins;
- Previous Archaeological Impact Assessment Reports;



- Townland names;
- And The schools Collection.

Record of Monuments and Places (RMP)

The RMP is a list of archaeological sites known to the National Monuments Service of the DHLGH with accompanying RMP maps, based on the first and second editions of the OS 6" Sheets, which indicate the location of each recorded site. The list is based on the SMR files which are updated on a regular basis. The SMR are lists with accompanying maps and files of all known archaeological sites and monuments mainly dating to before 1700. These lists were initially compiled from cartographic, documentary and aerial photographic sources.

The SMR formed the basis for issuing the RMP - the statutory list of recorded monuments established under Section 12 of the National Monuments (Amendment) Act 1994. The RMP was issued for each county between 1995 and 1998 in a similar format to the existing SMR. The RMP differs from the earlier lists in that, as defined in the Act, only monuments with known locations or places where there are believed to be monuments are included.

Topographical Files of The National Museum of Ireland

This is the archive of all known finds recorded by the National Museum. The archive primarily relates to artefacts but also includes references to monuments and previous excavations. The find spots of artefacts are important contributors to the knowledge of the archaeological landscape. Location information relating to finds is an important indicator of human activity. Topographical files examined for the townlands within the area of the proposed wind farm site, revealed numerous finds recovered from the area (Appendix 14-2).

Photography

The Ordnance Survey of Ireland (OSi) aerial photographs (www.taillte.ie) were consulted to identify any archaeological features in the landscape which may not have been previously recorded. Photomontages from chapter 13 (Landscape and Visual) were examined.

Longford, Roscommon, Westmeath County Development Plans & County Longford, Roscommon and Westmeath Heritage Plan

The County Development Plans, and the County Heritage Plans were consulted for the schedule of buildings (Record of Protected Structures) and items of cultural, historical or archaeological interest within the area of the proposed development.

National Monuments in State Care

The Department of Environment, Heritage and Local Government maintains a database on a county basis of National Monuments in State Care, which was consulted as part of the desk study. 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".

National Inventory of Architectural Heritage



The NIAH maintains a non-statutory register of buildings and structures and historic gardens and designed landscapes recorded on a county basis, which was consulted as part of the desk study.

Cartographic Analysis

Consultation of the Ordnance Survey Maps from 1838 to the present day, Lewis map 1837 and Taylor and Skinner maps facilitated a further assessment of the archaeological and architectural heritage.

Excavation Bulletins

The Bulletin is a summary publication that has been produced every year since 1970. This summarises every archaeological excavation that has taken place in Ireland during that year up until 2013 and since 1987 has been edited by Isabel Bennett. This information is vital when examining the archaeological content of any area, which may not have been recorded under the SMR and RMP files. This information is also available online (www.excavations.ie) from 1970– to 2025 and was consulted as part of the desk study.

County Longford Industrial Heritage Survey

The Longford Industrial Heritage Survey (LIHS) was compiled in 2008 and contains an inventory of some 701 features. Industrial Archaeology is a 'period study embracing the tangible evidence of social, economic and technological development in the period since industrialisation' (Palmer 1990, 281). The LIHS incorporates the 'place of work' in the inventory and of particular interest is the Bord na Mona infrastructure dating to the mid-late 20th century.

Schools Collection

The Schools Collection forms part of the National Folklore Collection, created in the late 1930's it is comprised of folklore and local traditions compiled by school children throughout Ireland. Documents relating to the area of the development were examined in the schools of Lanesborough, Cloontagh, Killashee and Keenagh, relating to details of community, placenames and folklore. The collection includes stories of treasures being found in the bogs and the meaning of placenames which has been included in Section 14.3.9.

Phase II - Field Survey

Field inspection is necessary to determine the extent and nature of archaeological and architectural remains and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information. A field survey of the proposed TDR was not undertaken as the proposed TDR runs along existing roads, with minor works such as modifications to existing signage at roundabouts in Roscommon and Athlone (Section 14.3.12).

The archaeological and architectural field walking inspection (excluding the TDR) entailed the following;

- Walking the proposed wind farm site and its immediate environment;
- Noting, photographic and description recording the terrain type and land usage;
- Noting and recording the presence of features of archaeological, architectural or cultural heritage significance;



- Verifying the extent and condition of recorded sites;
- Inspection of existing drains and measuring peat depths; and,
- Archaeological monitoring of the ground investigations.

A walkover survey of the proposed wind farm site was undertaken in August 2022 and July 2023. Archaeological monitoring of ground disturbance associated with the ground investigations was carried out in 2022 and 2023 under licence (Licence No. 18E0177ext.). The results from archaeological monitoring have been included in this assessment.

14.2.1 Assessment of Likely Significant Effects

The effects of the development can be assessed based on the detailed information of the project, the nature of the area affected and the range of resources potentially affected. The terminology used to describe the effects is from the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports EPA (May, 2022).

Developments can potentially affect the architectural, archaeological and cultural heritage landscape in a number of ways, as follows. The quality of the effects can be described as follows:

- **Positive Effects:**
- Positive effects from development includes an increase in the level and understanding of an archaeological or historical landscape as a result of archaeological assessments and subsequent fieldwork.
- **Neutral Effects:**
 - Examples of no effect or effects that are imperceptible, include recorded monuments that are listed however no surface trace survives due to clearance and/or excavation.
- **Negative/adverse Effects:** Cultural heritage can be adversely affected both directly and indirectly.

The Types of Effects

Direct Effects

- Permanent and temporary land-take, landscaping, mounding and general excavations associated with development may result in the loss or damage of archaeological remains or physical loss to the setting of historic landscapes and to the physical coherence of the landscape.
- Excavation work can alter the hydrological system resulting in changes to groundwater levels. This may have an adverse effect on archaeological sites and features.
- Landscaping associated with developments can damage or destroy sub-surface archaeological features. Root action of trees for example can have an adverse effect on archaeological layers.
- The weight of permanent embankments can cause damage to sub-surface archaeological layers and features.

Indirect effects

- Visual effects on the archaeological, architectural and cultural heritage landscape, outside the footprint of the development. The construction of structures, landscaping, mounding and planting as well as boundary fences, perimeter walls and associated works can impinge on historic and archaeological landscape as well as their visual amenity value.



Cumulative effects arise when the addition of many effects, including the effects of other projects, create larger, more significant effects.

Residual effects are the degree of environmental change that will occur after the proposed mitigation measures have taken effect.

Level of Effect

The level of effect on an archaeological, historical or architectural landscape depends on a number of factors which include the existing environment, and the type of monument affected. The level or severity of effect was assessed by taking the following into consideration:

- The proportion of the feature effected and the potential loss of characteristics essential to the understanding of the monument, feature or site.
- Consideration of the type, condition, vulnerability and potential amenity value of the landscape, feature, site or monument affected.
- Consideration of the likely effects of visual, noise and hydrological alterations which were informed by other specialist reports or observations.

Determining the Significance of Effects

Table 14-1: Criteria for Rating Effect Significance on Archaeological, Architectural and Cultural Heritage (EPA 2022)

Significance of Effects	Description
Imperceptible	An effect capable of measurement but without noticeable 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 but without affecting its sensitivities
Moderate effects	An effect that alters the character of the environment in a manner that is consistent with existing or emerging 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	An effect which obliterates sensitive characteristics

14.2.2 Assumptions and Limitations

A number of areas in the proposed wind farm site was overgrown thus preventing a full archaeological assessment. It is possible that archaeological features and/or artefacts may survive in these overgrown areas. All other areas were easily accessible, enabling a full inspection of drains and the surface of the bogs. In areas where peat depths are recorded at more than 1 m there is a likely probability of potential wetland archaeology being revealed. Details of these areas are described in the Field Survey, Section 14.3.11.



14.3 EXISTING ENVIRONMENT

This section provides a description of the receiving environment and historical background of the area and is based on the results of the desk-based study and field walkover survey.

The three bogs within the Moundillon Bog Group, namely Derryaroge, Derryadd and Lough Bannow cutaway bogs are located in south County Longford. The three bogs have a total area of approximately 1,900 ha and are located in an area surrounded by the towns and villages of Lanesborough, Derraghan, Keenagh, and Killashee. The surrounding landscape is a mixture of forestry, agricultural land, cutaway peatland and rolling hills. The Royal Canal and Lough Ree are located to the east and west respectively, and the River Shannon passes approximately 1.20 km from the northern boundary of the proposed wind farm site.

14.3.1 Archaeological and Historical Background

Peatlands cover one-sixth of the total landmass of Ireland extending over an approximate area of 1.34 million hectares. They can be divided into two major types, raised bogs and blanket bogs, although both appear similar in character, the mode of formation differs greatly. The vast majority of Ireland's raised bogs occur in the central lowlands of the country unlike blanket bogs that are predominately confined to mountainous areas and some occasional lowland areas along the western seaboard. The peatlands of County Longford form part of a regional pattern of bogs in the north midlands flanking the eastern and western sides of the Shannon. It is a landscape of rolling hills around which extensive tracts of bog developed over the last 10,000 years.

The anaerobic environment of bogs and wetlands helps create unique circumstances for the preservation of remains and have long been known for their rich abundance of archaeological deposits, which can range from the prehistoric to the 17th century. Perishable archaeological remains such as wood, leather, fabric and butter survive and have been recorded in the archive of the topographical files of the National Museum of Ireland. The earliest trackways recorded date from the beginning of the Neolithic period, around 3500 BC, when farming commenced, through to the early historic period (AD500-1100). The numerous toghers are considered to have given access within the bog itself (Doran, 2004). In County Longford these remains include a number of remarkable wooden trackways dating from the Iron Age, the most famous of which is the Corlea Trackway located 700m south of the proposed wind farm site. The trackway may have formed part of the *Slighe Assail*, one of the five major early routeways of Ireland. The *Slighe Assail* connected the east with the early ritual site of Cruachain or Rathcroghan, beginning either from Dublin or Tara and crossing the Shannon at Athlone and on to Ballyleague/Lanesborough, on to Tulsk and Rathcroghan.

A variety of site types were constructed in bogs, according to the needs of the communities that built them. These include platforms for a range of activities, rows of posts, trackways and other wooden structures. Trackways (toghers) or short stretches of trackways (tertiary and secondary toghers) were constructed to traverse the peat or provide a foot holding along certain stretches of wet bog. Wooden platforms most likely functioned as hides or hunting platforms in order to exploit the natural flora and fauna of the bogs (O' Carroll, 2001). A number of trackways, wooden platforms, occupation features, artefacts and miscellaneous wooden structures have been uncovered in the Derryaroge, Derryadd and Lough Bannow bogs (IAWU, 2003). The majority of these sites did not cross bogs but rather facilitated access to or movement within a bog. This has been recorded in the ASI, different areas within the proposed wind farm site, such as between the dryland areas of Derryaroge and Mount Davys, Cloonfore



and Reppareehill, Cloonfore and Annaghbeg, Annaghbeg and Cloonfiugh, Derrynaskea and Derroghil and Corlea

Further evidence for the Bronze Age has been recorded in the remains of a burnt mound in the townland of Cloontamore (LF018-085---- Fulacht Fia) recorded to the north of Derrynaskea Bog. The burnt mound or *Fulacht fiadh* is the most common Bronze Age site within the archaeological record. Over 4500 fulachta fiadh have been recorded in the country. Although burnt mounds of shattered stone occur as a result of various activities that have been practiced from the Mesolithic to the present day, those noted in close proximity to a trough are generally interpreted as Bronze Age cooking/industrial sites. Fulachta fiadh generally consists of a low mound of burnt stone, commonly in horse-shoe shape and are found in low lying marshy areas or close to streams and rivers. Often these sites have been ploughed out and survive as a spread of heat shattered stones in charcoal rich soil with no surface expression in close proximity to a trough.

Early Medieval Period (AD500–1100)

Ireland underwent radical change from the 5th century AD. An upsurge in grasses and weeds is demonstrated in the pollen record, associated with increased pasture and arable farming. A combination of factors led to a revolution in the landscape. Foremost amongst these was the introduction of Christianity in the early 5th century. The new religion was readily accepted and spread throughout the country from the 5th century, presenting a catalyst for change. Population expansion was also central to the transformation that swept across Ireland around this time which resulted in a complete, if uneven, spread of settlement across the country. Secular habitation sites in the early medieval period include *crannógs*, cashels and ringforts. Given the marginal wetland nature of the landscape, the area of proposed wind farm site would not have provided an ideal location for settlement. The islands of dry land would therefore have been sought after sites for activity. Two crannogs (LF017-005 and 006) were recorded in the townland of Leherly in the middle of Lough Bannow Lake, however no evidence of these structures survive today. These are located 2 km to the west of the proposed wind farm site boundary.

The construction of ringforts in Ireland dates from the early Christian/medieval period (c. 500 AD to 1170 AD) and possibly continued up to the seventeenth century. The most recent study of ringforts has suggested that there are a total of 45,119 potential ringforts or enclosure sites throughout Ireland (Stout, 1997). Rath is the term applied to those ringforts of earthen construction, while cashel refers to those constructed from stone. A ringfort generally consists of a circular, sub circular, oval or D-shaped area, enclosed by one or more banks of earth or stone, or a combination of both. Earthen ringforts usually have an external fosse surrounding the bank, and a causewayed entrance giving access to the interior. The bank is generally built by piling up inside the fosse, the material obtained by digging the latter. The function of ringforts was generally enclosed homesteads, with the defenses protecting the houses and outbuildings in the interior, but they may also have been used for social gatherings. There are ten ringforts recorded within 500 m of the proposed wind farm site boundary, in the townland of Annaghmore (LF018-035), Derryoghil (LF018-037), Derraghan More (LF022-003, LF022-013), Rapareehill (LF018-001, LF018-015001), Cloonfore (LF017-007), Cloonfiugh (LF018-018) Derrygeel (LF018-055) and Cloontabeg (LF018-056).

Ringforts are often accompanied by underground passages known as souterrains, which are believed to have been used for the storage of goods and foodstuffs and possibly for refuge in the case of attack. Souterrains are often recorded in ringforts and one is recorded in the townland



of Rapareehill at recorded monument (LF018-015002). This period was also characterised by the foundation of a large number of ecclesiastical sites throughout Ireland during the centuries following the introduction of Christianity in the 5th century AD. The remains of Ballynakill church and ecclesiastical enclosure (LF013-045001- 45013) are located to the east of Derryaroge Bog.

Medieval Period (AD1100–1600)

The piecemeal conquest by the Anglo-Normans of Ireland had a fundamental impact on the Irish landscape. By the end of the 12th century the Anglo-Normans had succeeded in conquering much of the country. The Anglo-Norman invasion stimulated the development of towns and while some stone castles were constructed, earthen mottes or motte-and-bailey castles continued in use. Tower houses developed from the 15th century onwards and were defended stone settlements that originated from the early stone castles but were smaller in size accommodating extended families and their staff. A Castle/Tower House, with a circular bawn wall and ringfort (LF018-060001-3, Ballyknock) is located to the east of the Lough Bannow Bog.

Post Medieval Period

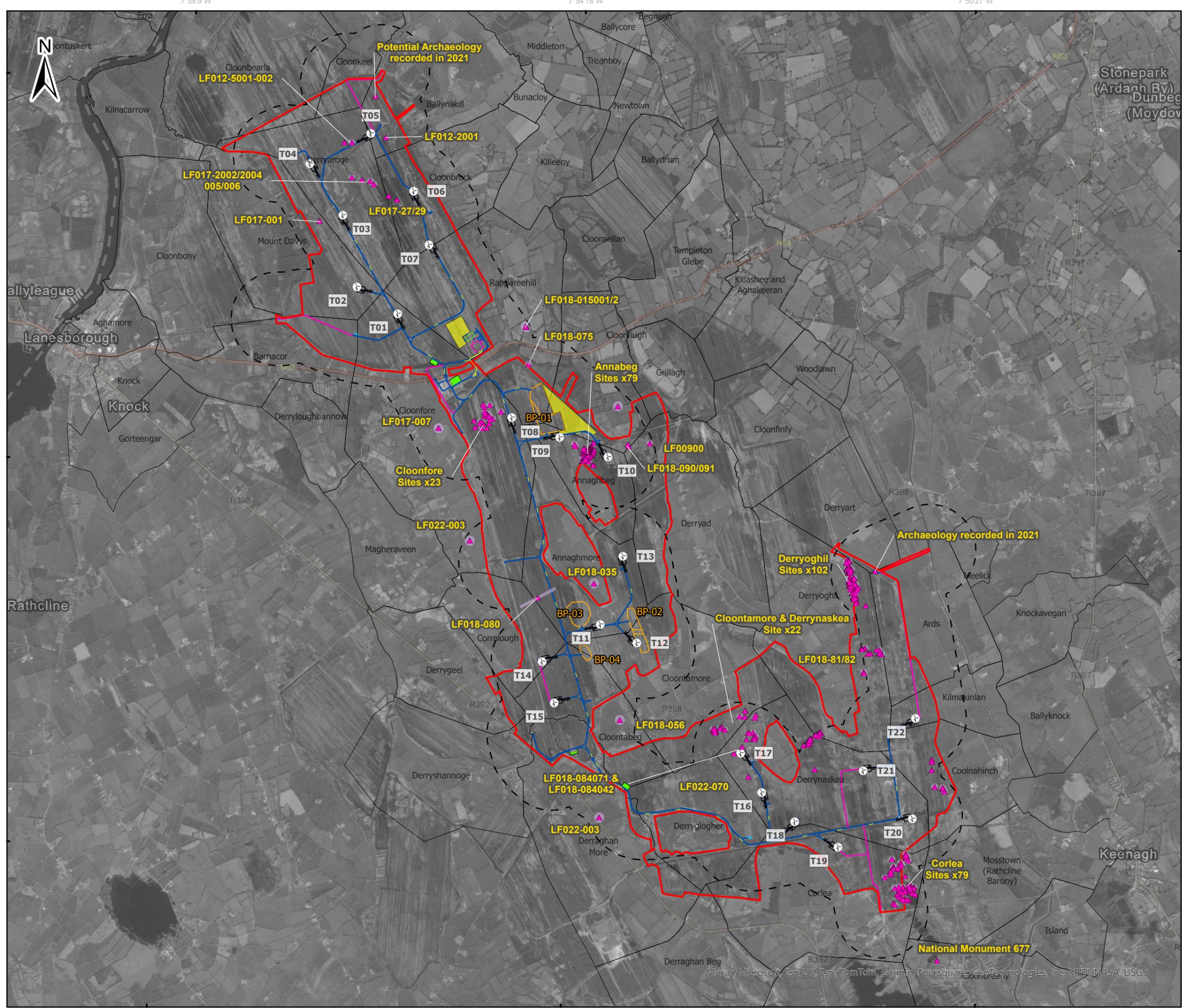
The wider area surrounding the proposed wind farm site has a number of large landed estates and houses that provide an interesting insight into the social, architectural and agricultural environment from the 17th century. A further insight into the industrial and cultural heritage of the area is provided by the Royal Canal, which was originally opened through Keenagh in 1817. Canal bridges, overflows, locks and lock keeper's houses are dotted along the canal and provide a link to the 19th century activity in the area. The canal is now navigable from Spencer Dock in Dublin and along with the canal towpaths provides a recreational route for boats/barges, walkers and cyclists.

The historic town of Lanesborough (LF017:003) located on the eastern side of the River Shannon and Lough Ree, is accessed via a 6-arch road bridge originally built ca. 1835-1843. It is situated at the site of a ford (RO37:009, LF17:3003) and replaced an earlier medieval nine-arch stone bridge (RO37:005, LF17:3001) which was described in 1682 as 'in length and breadth the largest in the kingdom'. According to the Urban Archaeological Survey (Bradley et al., 1985) the extent of the 13th century Anglo-Norman borough at Lanesborough is unknown and it may be that the 17th century plantation settlement overlies it. The Down Survey (1655-6) map and notes by Nicholas Dowdall in 1682 indicate that the 17th century borough was quite small, consisting of one main street with property plots extending off on both sides. No traces of any 17th century buildings survive today, with the castle and the fort having been levelled.

14.3.2 Recorded Monuments

The archaeological record indicates 448 no. sites within the proposed wind farm site boundary, of which 328 no. sites are located within 500 m of the proposed infrastructure (see figure 14-1). A total of 5 no. sites are located within 500 m of the proposed wind farm infrastructure, however these are outside the proposed wind farm site boundary. Appendix 14-1 lists the description of the recorded Sites and Monuments Records (SMR).





Legend

- Proposed wind farm site boundary
- Turbine Layout
- Study area: 500m from infrastructure
- Townland boundaries
- Site and Monument Records (SMRs)
- SMRs Zone of Notification

Site Layout

- 110kV Grid Connection
- Battery Storage EBOP Compound
- Passing Bay
- Crane Harstanding
- Amenity Carpark
- Amenity Track
- Internal Access Road
- Substation Telecom Tower
- Borrow Pit
- Met Mast
- Peat Deposition Areas
- Temporary Construction Compounds



- NOTES**
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 - ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P	I.H

Client: **Bord na Móna**

Project: **Derryadd Wind Farm**

Title: **Figure 14-1:
Plan of development
and location of SMR's**

Scale @ A3: 1:38,000

Prepared by: S.Pezzetta Checked by: I.Heanue Date: February 2025

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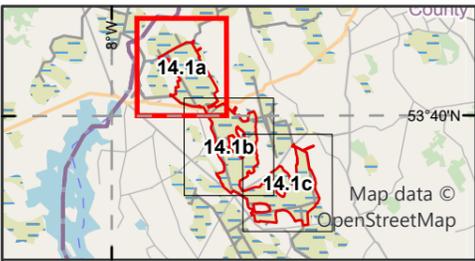
Map Ref: 11399-042-SMRs-LAY.INFR-TOB-A Draft: **A**

As indicated in Figure 14-1, 14-1a and Table 14-2, there are a total of 11no. SMR's located within 500m of infrastructure associated with the proposed wind farm development in Derryaroge Bog. The ringfort (LF18-150001/2) is located outside the proposed wind farm site boundary, the remaining 10no. sites have all been excavated and/or are redundant.

Table 14-2: List of Sites and Monuments and distance to proposed development in Derryaroge Bog

SMR No.	Townland	Monument	Distance from
LF012-002001-	BALLYNAKILL	Road - gravel/stone trackway - peatland - Excavated	172 m from T05. 60 m to internal road between T05 & T06
LF012-005001-	DERRYAROGUE	Road - class 3 Redundant	400 m from T04, 300 m from T05 60 m to internal road between T04 & T05
LF012-005002-	DERRYAROGUE	Road - class 3 Excavated	500 m from T04, 220 m from T05 19 m to internal road between T04 & T05
LF017-002005-	DERRYAROGUE	Road - class 3 Excavated	480 m from T04, 519 m from T05, 400 m from T03, 280 m to internal road between T03 & T04. 310 m to internal road between T04 & T05
LF017-002002-	DERRYAROGUE	Road - class 2 Excavated	445 m from T03 374 m from internal road between T03 & T04 384 m from internal road between T04 & T05
LF017-001----	DERRYAROGUE, MOUNT DAVYS	Road - gravel/stone trackway - peatland- Excavated	300 m from T03 and internal road between T03 & T04
LF017-002004- LF017-002006-	DERRYAROGUE	Road - class 3 Road - class 3 Excavated	474 m from T03 481 m to T03 280 m from internal road between T05 and T06
LF017-027----	DERRYAROGUE	Structure - peatland Excavated	275 m from T06 250 m adjacent to internal road between T05 & T06
LF017-029----	CLOONBROCK	Structure Redundant record - peatland	203 m from T06
LF018-150001/2	RAPAREEHILL	Ringfort and Souterrain	390 m from internal access road



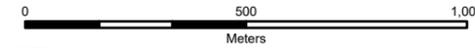


Legend

- Proposed wind farm site boundary
- Turbine Layout
- Study area: 500m from infrastructure
- Site and Monument Records (SMRs)
- SMRs Zone of Notification
- Townland boundaries

Site Layout

- 110kV Grid Connection
- Battery Storage EBOP Compound
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Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P	I.H

Client: **Bord na Móna**

Project: **Derryadd Wind Farm**

Title: **Figure 14-1a:
Plan of SMR and location of potential
Archaeology in Derryaroge Bog**

Scale @ A3: 1:16,000

Prepared by: S.Pezzetta Checked by: I.Heanue Date: February 2025

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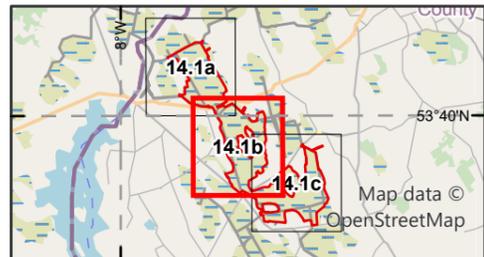
Map Ref: 11399-117-SMRs-LAY.INFR-TOB-A Draft: **A**

As indicated on Figure 14-1, 14-1b and Table 14-3, there are a total of 109 SMR's located within 500 m of infrastructure associated with the proposed development in Derryadd Bog, 106 of which have been excavated and/or cleared. The remaining three (LF17:007, LF18:035, LF018-056) are located outside the proposed wind farm site boundary.

Table 14-3: List of Sites and Monuments and distance to proposed infrastructure in Derryadd Bog

SMR	Townland	Monument	Distance
LF017-007	CLOONFORE	Ringfort	170 m to internal access road
LF018-076 LF018-076001 to 076006 (6 sites) LF018-106 to 121 (16 sites)	CLOONFORE	Road - class 3 togher Road - class 2 togher All Excavated and/or cleared 23 sites	130 m to T08 & internal access road
LF018-075	RAPAREEHILL	Road - class 3 togher	Situated 0.32 km from T11
LF018-077---- LF018-077001-077079 LF018-105---- (79 Sites)	ANNAGHBEG	Road - class 3 togher Road - class 2 togher All excavated and or cleared 79 sites	150-390 m to T10 150-480 m to T09 180 m to Borrow Pit (BP-01)
LF018-080----	ANNAGHMORE, CORRALOUGH	Road - class 1 togher Cleared	Situated 150 m from internal access road Situated 400 m from Borrow Pit (BP-03)
LF018-015001 to LF018-015002-	RAPPAREEHILL	Souterrain	001 - 0.46 km to internal access road 002 - 0.457 km to internal access road
LF018-035----	ANNAGHMORE	Ringfort - rath	0.436 km to T13 0.45 km to T11 Situated 0.35 km from internal access roads between T11 & T13 Situated 0.21 km from Borrow Pit (BP-02)
LF018-083007	DERRYSHANNOGE	Road - Redundant Record	0.534 km internal access road
LF018-090 LF018_091	CLONFIUGH	ROAD	260 m from T10 281 m internal access road
LF018-056	CLOONTABEG	Ringfort	370 m from internal access road





Legend

- Proposed wind farm site boundary
- Turbine Layout
- Study area: 500m from infrastructure
- Site and Monument Records (SMRs)
- SMRs Zone of Notification
- Townland boundaries

Site Layout

- 110kV Grid Connection
- Passing Bay
- Crane Harstanding
- Amenity Carpark
- Amenity Track
- Internal Access Road
- Substation Telecom Tower
- Borrow Pit
- Peat Deposition Areas
- Temporary Construction Compounds



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Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P.	I.H.

Client:
Bord na Móna

Project:
Derryadd Wind Farm

Title:
**Figure 14-1b:
Plan of SMR and location of potential
Archaeology in Derryadd Bog**

Scale @ A3: 1:16,000

Prepared by: S.Pezzetta
Checked by: I.Heanue
Date: February 2025

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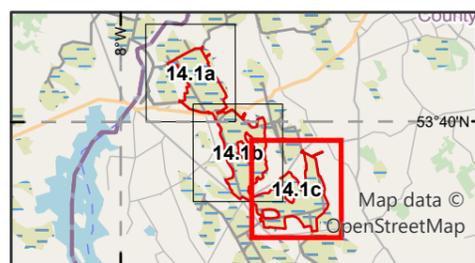
Map Ref: 11399-117-SMRs-LAY.INFR-TOB-A
Draft: A

As indicated on Figure 14-1, 14-1c and Table 14-4, there are 213 SMR's located within 500 m of infrastructure associated with the proposed development in Lough Bannow Bog, the majority of which have been excavated and/or cleared. One ringfort (LF022-003) is located outside the proposed wind farm site boundary.

Table 14-4: List of Sites and Monuments and distance to proposed infrastructure in Lough Bannow Bog

RMP	Townland	Monument	Distance
LF022-003	DERRAGHAN MORE	Ringfort	400 m from internal access road
LF018-084001-2, 84007-11, 0840039-40,0840069	CLOONTAMORE	Road	380 m from T17
LF018-084071-	DERRYNASKEA	Burnt Spread	30 m from T17
LF018-084012- LF018-084013 LF018-084049-50- LF018-084042 LF018-084073 to 76 & 084041	DERRYNASKEA	Road -class 2 togher Road - class 2 togher Road - class 3 togher Road - class 2 togher	165 m to T17 250 m to T17 270 m to T17 74 m to T17 220 m to T17
LFO22-070----		Road - class 3 togher	240 m from T17 & 220 m from T16 74 m from internal access road between T16 & T17
(102 sites)	DERRYOGHIL	All cleared and/or Excavated	500 m to amenity track
79 sites	CORLEA	All cleared and/or Excavated	Within 500 m of amenity track 300 m T20





Legend

- Proposed wind farm site boundary
- Turbine Layout
- Study area: 500m from infrastructure
- Site and Monument Records (SMRs)
- SMRs Zone of Notification
- Townland boundaries

Site Layout

- Passing Bay
- Crane Harstanding
- Amenity Carpark
- Amenity Track
- Internal Access Road
- Borrow Pit
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Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P	I.H

Client:
Bord na Móna

Project:
Derryadd Wind Farm

Title:
**Figure 14-1c:
Plan of SMR and location of potential
Archaeology in Lough Bannow Bog**

Scale @ A3: 1:20,000

Prepared by: S.Pezzetta Checked by: I.Heanue Date: February 2025

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Map Ref: 11399-117-SMRs-LAY.INFR-TOB-A Draft: A

14.3.3 Topographical Files of the National Museum of Ireland

Topographical files examined for the townlands within the proposed wind farm site revealed numerous finds recovered from the area (Appendix 14.2). The majority of artefacts were retrieved during the extraction of peat and include finds of quern stone, a bell, a grave slab, an iron knife, a furnace bottom, a billhook, a bronze spearhead, a wooden vessel made of hazel with bog butter, a copper axe head, a copper alloy cross, a leather container for wrapping bog butter, a tub shaped piece of bog butter, a wood platter and a wooden goblet throughout, a variety of wooden bowls, a copper alloy basin and a flint stone. These are described in Section 14.3.8 in relation to the proposed wind farm site.

14.3.4 Photography

The OSI aerial photographs (www.taillte.ie) were consulted to identify any archaeological features in the landscape that may not have been previously recorded. There was no evidence of additional archaeological, architectural or cultural heritage features recorded on the aerial photographs within the area of the proposed wind farm site.

14.3.5 Longford County Development Plan & County Longford Heritage Plan

The Longford County Development Plan (2021 -2027) ("the CDP") and County Longford Heritage Plan were consulted for the schedule of buildings (Record of Protected Structures) and items of cultural, historical or archaeological interest that may be impacted by the proposed development. There are 10 no. Protected Structures located within 2 km from the proposed wind farm site (Table 14.5). There are no Protected Structures located within the proposed wind farm site boundary. These are described in Section 14.3.7.

14.3.6 National Monuments in State Care

A National Monument in State Care is located 700 m to the south of the proposed wind farm site, listed as the Bog Trackway in Corlea, Mon No. 677. It was fully excavated and preserved and is now housed in a visitor centre. The national monument Inchcleraun (No. 91), an early Medieval Ecclesiastical Site is located 7 km to the south-west of the proposed wind farm site.

14.3.7 National Inventory of Architectural Heritage

The NIAH maintains a non-statutory register of buildings and structures recorded on a county basis. There are 26 no. structures registered in the NIAH within 2 km of the proposed wind farm site boundary, 12 of which are Protected Structures (Table 14.5 and 14.6). Refer to Figure 14-2. Some of the structures recorded in the NIAH are part of the infrastructure of the historical peat development works located outside the proposed wind farm site boundary. This includes, the bridge (Reg. No. 13401202) associated with the Bord na Móna works.

The NIAH also maintains a non-statutory register of historic gardens and designed landscapes also recorded on a county basis. The Mosstown House walled garden complex (NIAH 13313026, RPS 292) was built in ca. 1760 and extended ca. 1860. It is located approximately 0.9 km from the proposed wind farm site boundary. In the late seventeenth century Mosstown House was the seat of Viscount Newcomen and was subsequently the home of the Kingston and Murray families before its demolition ca. 1962. The house and demesne are located adjacent to the estate village of Keenagh. The gateway to Mosstown House, known as 'The White Gates' (NIAH



13313008, RPS 293), has ashlar limestone piers and carved sandstone eagle finials. It was apparently built after the first World War by Belgian refugees, replacing (and possibly incorporating the fabric of) an earlier gateway to the site. Also, part of the estate is the dovecote (NIAH 13313010) built in ca. 1810. There is also a gate lodge, (NIAH 13313006) probably serving as a secondary entrance to Mosstown House, and a single-bay lime kiln (NIAH 13313007) within the grounds. The estate walls (NIAH 13313009) are still evident at irregular intervals. Built ca. 1750 they are now partially collapsed and overgrown. A substantial complex of walled gardens, with well-built boundary walls, cut stone detailing, a gardener's shed and a Tudor Revival style entrance doors make up the boundary structure. To the south of this walled garden is a linear feature which may have been an ornamental canal - a feature sometimes found on the larger country estates in Ireland dating from the late-seventeenth and early-eighteenth centuries. To the south is a Tudor-Revival style former gate-lodge, built ca. 1830 (NIAH 13313020). It still retains its distinctive features including original timber framed leaded glass windows, decorative timber bargeboards and carved limestone detailing to the interior of the porch.

Situated close to the Derryaroge Bog site boundary, is Cloonbony House (NIAH 13401701), built ca. 1800 it stands as a detached three-bay two-storey house. It has a long approach avenue to the south and formerly had a gate lodge at the entrance close to the village of Lanesborough, which is no longer extended. Cloonbony House lies 0.1 km to the west of the proposed wind farm site boundary. Middleton House (NIAH 13401339), built ca. 1760 is a detached four-bay two-storey house. It is set back from the road in extensive mature grounds to the south of Cloondara. It was the residence of Montford Esq. ca. 1777-83 (Taylor & Skinner map) the Montford family later bought the estate of Middleton ca.1750. The house lies 1.6 km north-east of the proposed wind farm site boundary. Derryloughbannow House (NIAH 13401702) is located 0.6 km to the west of the proposed wind farm site boundary. Built circa 1820 it is comprised of a detached four-bay single storey vernacular house, now disused. The Round House (RPS 54, NIAH 133100120) is located in Lanesborough town 0.2 km to the west of the proposed wind farm site. Designed by Frank Gibney, it was built in the 1950's as part of a complex of sixty-one houses in a complex of Bord na Mona workers houses at Lanesborough.

Several 19th century water pumps are also recorded in the vicinity of the proposed wind farm site. Cloonbrock water pump, (NIAH 13401340), is located 0.6 km to the east of the proposed wind farm site boundary. Kileeney water pump (NIAH 13401341), lying 1 km east of Cloonbrock water pump is a typical late nineteenth-century water pump. A water pump (NIAH 13402218) and Corlea House are located 0.75 km to the west of the southern end of the proposed wind farm site. A house dating to the late 19th century (NIAH 13402202) is located in the townland of Derraghan Beg and is 0.4 km to the south of the proposed wind farm site boundary.

The Royal Canal located immediately to the east of the proposed amenity track in the townland of Ards. The canal which was originally opened through Keenagh in 1817, then closed to boat traffic in 1962, was reopened in September 2010. The canal is now navigable from Spencer Dock in Dublin through to Clondra in Co. Longford passing through Keenagh en route. Mosstown harbour (NIAH 13313021) was built ca. 1817 and functioned as a harbour/dock/port. This area is particularly busy during the summer months while the canal towpaths provide a recreational route for both walking and cycling. Canal bridges, overflows, locks and lock keepers' houses are dotted along the canal and provide a bridge to our industrial and cultural heritage. The Lock Keepers House (NIAH 13313001), a detached three-bay single-storey structure, built c. 1815, is located adjacent to Lock 41 (NIAH 13313003) and Coolnahinch Bridge (NIAH13313002). These structures are located to the north west of



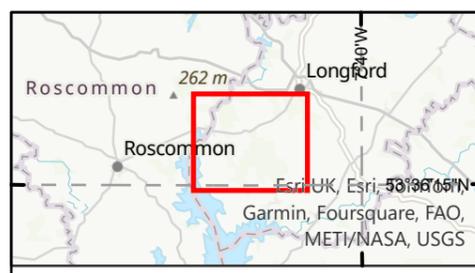
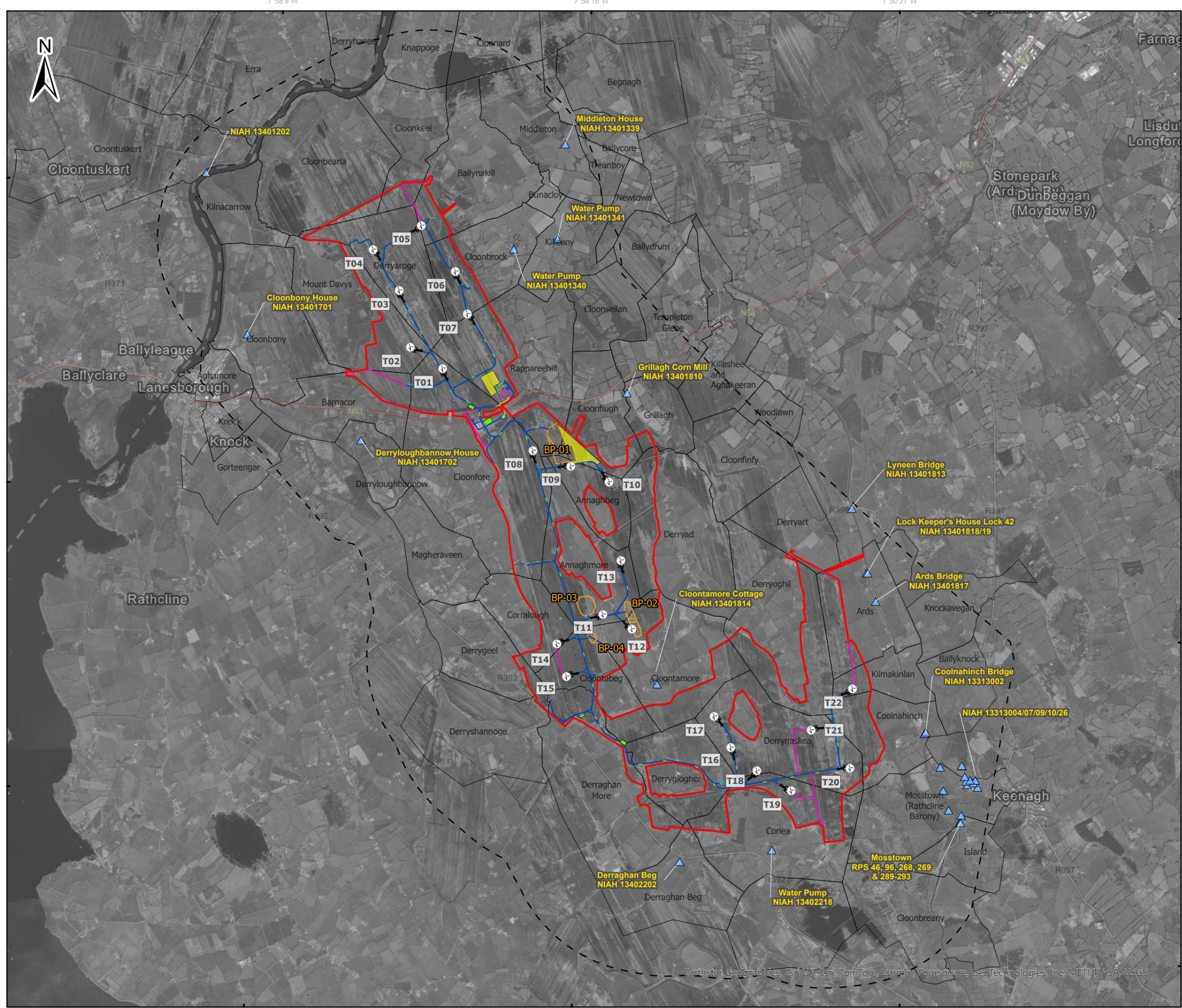
Keenagh and east of the proposed development on Lough Bannow Bog. Adjacent (200 m) to the proposed amenity track in the townland of Ards is the remains of a Lock Keepers House (NIAH 13401819) and Lock 42 (NIAH 13401818). To the south of this is Ards Bridge (NIAH 13401817) built in 1810-1820.

In the Derryadd Bog area, Grillagh Corn Mill (NIAH 13401810) is situated 0.8 km north-east of the proposed wind farm site. It was built ca. 1800 and was extended ca. 1860 and comprises of a multiple-bay two-storey former corn mill while to the west is a former corn drying kiln. It is located on the roadside with former millrace running parallel to the road. This vernacular corn mill provided a basic service to local farmers and was also an important source of employment for the local community. The remaining structures still in situ on the site, particularly the early machinery, represent an important part of the social, technical and architectural heritage of the Killashee area. The thatched cottage at Cloontamore (NIAH 13401814) is a detached three-bay single-storey house, built ca. 1800 and lies to the 0.3 km to the north of the proposed wind farm site boundary.

Bord na Móna narrow gauge railways and ancillary structures are an important element of the twentieth century industrial and economic heritage of Ireland. They are a common feature of the landscapes of County Longford and are almost a type that is unique to the midlands of Ireland. The railway line and associated level crossing gates were originally used by Bord na Móna to transport sod peat to the sidings at Lanesborough 'A' Power Station to the east. Located to the north of Lanesborough Power station, is the multiple-span Bord na Móna railway bridge (13401202) carrying narrow gauge railway line over the River Shannon. This large-scale bridge forms part of an interesting collection of structures associated with Lanesborough Power Station (13310014). It is a notable example of mid-to-late twentieth century engineering and forms a part of the cultural heritage of the region.

The historic town of Lanesborough (LF017:003) located on the eastern side of the River Shannon and Lough Ree, is accessed via a 6-arch road bridge originally built ca. 1835-1843 (NIAH 13310001). The structure has been considerably altered since the 1970's. It is situated at the site of a ford (RO37:009, LF17:3003) and replaced an earlier medieval nine-arch stone bridge (RO37:005, LF17:3001) which was described in 1682 as 'in length and breadth the largest in the kingdom'. According to the Urban Archaeological Survey (Bradley et al., 1985) the extent of the 13th century Anglo-Norman borough at Lanesborough is unknown and it may be that the 17th century plantation settlement overlies it. The Down Survey (1655-6) map and notes by Nicholas Dowdall in 1682 indicate that the 17th century borough was quite small, consisting of one main street with property plots extending off on both sides. No traces of any 17th century buildings survive today, with the castle and the fort having been levelled. Numerous NIAH features are located in the town- many of which are associated with the Bord na Móna works. Appendix 14-3 lists the description of the recorded protected structures and NIAH structures within the surrounding area of the proposed wind farm site.



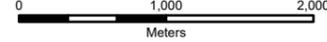


Legend

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- Turbine Layout
- Study area: 2km buffer from the proposed wind farm site boundary
- Townland boundaries
- National Inventory of Architectural Heritage (NIAH)

Site Layout

- 110kV Grid Connection
- Battery Storage EBOP Compound
- Passing Bay
- Crane Harstanding
- Amenity Carpark
- Amenity Track
- Internal Access Road
- Substation Telecom Tower
- Borrow Pit
- Met Mast
- Peat Deposition Areas
- Temporary Construction Compounds



- NOTES**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
 3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
 4. ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P	I.H

Client: **Bord na Móna**

Project: **Derryadd Wind Farm**

Title: **Figure 14-2:
Plan of development
and location of NIAH**

Scale @ A3: 1:48,000

Prepared by: S.Pezzetta Checked by: I.Heanue Date: February 2025

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Map Ref: 11399-109-NIAH-LAY.INFR-TOB-A Draft: A

7°58'9"W 7°54'18"W 7°50'27"W

53°42'0"N 53°39'45"N 53°37'30"N

601500 606000 610500

772400 768000 763600

Barthstar Geographics, Esri UK, Esri, TomTom, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

Table 14-5: Details of the Protected Structures/ NIAH and distance to the proposed wind farm site boundary

NIAH Reg. No.	Record of Protected Structure No.	Description	Distance to Boundary
13401202		Bridge	1.56 km
13313026	292	Walled Garden Complex	1.5 km
13313008	293	Gateway	1.3 km
13313010	48	Dovecote	1.4 km
13313006	269	Gate Lodge	1.4 km
13313007	289	Lime Kiln	1.06 km
13313009	290	Demesne Boundary Wall	0.8 km
13313020	291	Former Gate Lodge	0.7 km
133100120	54	Round House	0.2 km
13401340		Water Pump	0.6 km
13401341		Water Pump	1 km
13313021		Harbour	1.38 km
13313001	270	Former Lock Keeper House	0.6 km
13313003	272	Lock	0.6 km
13401819		Lock Keeper House	0.2 km
13401818		Lock	0.2 km
13401817		Bridge	0.46 km
13401810	85	Corn Mill	0.8 km
13313002		Bridge	0.57 km
13402218		Water Pump	0.4 km



Table 14-6: Details of houses within 2 km of the proposed wind farm site boundary that are recorded in the NIAH

Name	NIAH Ref.	Distance from Turbines	Distance to proposed wind farm site Boundary	Description of visual aspect from the buildings
Cloonbony House	13401701	T04 – 2 km away T03 – 2.1 km away T02 – 2.2 km away T01 – 2.7 km away	0.1 km	Located west of the proposed wind farm site. Screening to the east.
Middleton House	13401339	T05 – 2.2 km away T06 – 2.3 km away T07 – 2.6 km away	1.6 km	It is located NE of turbines. Planted forestry to SW and W
Cloontamore Cottage	13401814	T17 - 0.8 km away T12 – 0.8 km away T15 – 1.2 km away	0.5 km from north & 0.3 km from south boundary	Turbines located to north and south. No screening.
Derraghan Beg	13402202	T18 – 1.6 km	0.4 km to north boundary	Located to the south of the boundary. Screening to the north and east.
Derryloughbannow	13401702	T01 – 1.5 km	0.6 km to north boundary	Located to the south and west of the boundary. Screening to northeast.
Mosstown House & Demesne	13313005 RPS 268	T21 – 1.7 km away T22 – 1.2 km away T23 – 1.4 km away	0.7-0.9 km	Located southeast of proposed wind farm site with some screening between them

14.3.8 Previous Archaeological Work in the Area

The bogs of Derryaroge, Derryadd and Lough Bannow have undergone previous surveys, excavations and re-assessments (Appendix 14.4) as detailed below. Since Bord na Móna works commenced in the area in the 1950's, there has been an increase in the number of artefacts and sites identified during the extraction of peat. The first archaeological excavations in these bogs were carried out in the 1950's by Etienne Rynne on behalf of the National Museum of Ireland. Following this an extensive European Community (EC) sponsored training and research programme on the archaeology of Irish wetlands was carried out in the late 1980's led by Barry



Raftery. In 1991 the Archaeological Survey of Ireland's Peatland was carried out by the Irish Archaeological Wetland Unit (IAWU), and since then 3no. re-assessment surveys have been carried out by Archaeological Development Services (ADS) and Irish Archaeological Consultancy Ltd (IAC) on behalf of Bord na Móna. These were undertaken in 1999, 2013 and 2018.

Peat extraction in the Derryaroge bog in the late 1950's revealed the remains of a number of archaeological features. These were recorded and excavated by Etienne Rynne on behalf of the National Museum of Ireland and consisted of roads – gravel/stone trackways, wooden toghers and structures (NMI I.A. 32/57; 4/58-,Rynne). The remains of a togher was also excavated by Barry Raftery in the townland of Mount Davys (LF017:028).

In 1991, the Derryadd Bog and the Lough Bannow bog were surveyed by the IAWU recording hundreds of archaeological features, predominantly roadways and peatland structures. In 1999 the re-assessment carried out by ADS on behalf of Bord na Móna found that many of these had been cleared by the peat milling and peat extraction undertaken at the site.

In the townland of Cloonfore, at the rear of the Bord na Móna Mountdillon Works, a number of toghers were excavated (Licence Nos. 00E514-523), by Noel Dunne in 2000. In the townland of Annaghbeg the 1991 survey carried out by the IAWU recorded 75 features (LF018-076001-076079), 3no. of which were excavated recording bronze age dates. The survey in 1991, could not trace any of the 75, but did record 8no. previously unrecorded toghers in the area of the concentration. The sites were comprised primarily of roads – class 2 and class 3 toghers.

Lough Bannow Bog is a large area of production bog within the Bord na Móna Mountdillon Group of bogs previously referred to by Bord na Móna as Lough Bannow 1, 2, 3 and 4. The numerical divisions are no longer in use by Bord na Móna but are included here to aid the descriptions of the several seasons of archaeological works undertaken.

The southern extent of the bog (located immediately south of the boundary of the proposed wind farm site), Lough Bannow 1, also known as Corlea South, was the focus of the preliminary excavations carried out by Raftery in 1989. At that time five sites were excavated including the substantial Iron Age transverse plank trackway known as Corlea 1 (Raftery 1996). By the time of the 2013 re-assessment survey no sites remained extant in Lough Bannow 1.

Lough Bannow 2 and 3 are north of the unclassified road that runs north eastwards towards Keenagh village. 49 no. sites were identified in Lough Bannow 2 in 1991 (IAWU 1993). 34 no. sites were identified in 1999 (Dunne 1999) 8no. of which were subsequently excavated as part of the 2000 Mitigation project (Dunne 2000). The zone was 1 km north northwest of the Corlea visitor centre and intensive investigations of 9 no. toghers within the area had previously been carried out by Barry Raftery between 1988 and 1990. The majority of the sites were dated to the Neolithic, with some however ranged in dates to the early historic period. No sites were recorded in Lough Bannow 2 during the 2013 re-assessment survey (Whitaker 2014).

Lough Bannow 3, the eastern part of the centre of the bog, had 18no. sites during the preliminary survey in 1991 with 11 no. sites recorded in 1999. Two of these were excavated during the 2001 mitigation project (Whitaker 2009). In the townland of Derryglogher, approximately 2 km to the west of Lough Bannow 2, a cluster of 11no. archaeological sites were recorded. In 1991 IAWU excavated a single cutting through this site, incorporating 2 no. toghers. A large expanse of bogland located north of Lough Bannow 2 and 3, surrounds Derrynaskea island and Derryoghil peninsula. Dense concentrations of archaeological sites from the west through north to east



indicate evidence of human activity. One together to the west of the island excavated by IAWU in 1991 gave a dendrochronological date of 974BC.

Lough Bannow 4 is the northern extent of the bog and is bounded by the R398 that runs south-west towards Derraghan. The narrow north-east extent of Lough Bannow 4 or Derryoghil was the location of 39 no. excavations carried out by Raftery (1996). 11 no. sites were excavated in Derryoghil 'South' with the remaining 28 no. excavated in Derryoghil 'North', which is within the same area that the 2015 excavations took place. 25 no. new sites were recorded in Derryoghil North (IAWU 1993) while the 1999 Bord na Móna re-assessment survey (Dunne 1999) identified 78 no. sites. The most recent survey carried out in 2013 (Whitaker 2014) identified 15 no. sites, 9 no. of which were selected for excavation with samples from 2 no. additional sites. The location of multiple sites, spanning several centuries, in the same area and along the same orientation suggests that this was an important routeway or area within the bog. In 2015 excavations were carried out by Jane Whitaker of Irish Archaeological Consultancy Ltd. for Bord na Móna under licences 15E0205–15E0213. The sites selected for excavation included four Road-Class 3 Toghers, two platforms and three Road-Class 2 Toghers. The features dated from the Neolithic period to the Bronze Age.

In 2018 archaeological monitoring under licence 18E0177, of the geotechnical ground investigations at Derryadd, Co. Longford was carried by Fiona Rooney of Through Time Ltd. A total of 20 no. trial pits were mechanically excavated in the bogs of Derryaroge and Derryadd (Rooney, 2018). No features and/or artefacts of archaeological significance were encountered during the course of monitoring. The stratigraphy encountered revealed varying levels of peat overlying a natural grey clay.

A cultural heritage assessment undertaken by Through Time Ltd in 2019 as part of the 2019 EIAR for a proposed 24 no. turbine wind farm development (previous application known as Derryadd Wind Farm, Planning Ref. No. 303592-19, which was granted planning permission but overturned on judicial review as per section 1.2.1 of Chapter 1 (Introduction), concluded that no surviving recorded monument would be directly impacted. No protected structures and/or NIAH sites would be directly impacted. The cultural heritage assessment encompassed a desk based and walk-over survey of the area of the development and all recorded sites located within 500 m of the proposed infrastructure. The results of the archaeological monitoring of the geotechnical site-investigations carried out under Licence 18E0177 (2018, Rooney) were also included in the assessment. The wider cultural heritage landscape and the setting of the proposed development in relation to this was also assessed.

The cultural heritage assessment as part of the 2019 EIAR concluded that no surviving recorded monument and/or protected structures would be directly impacted. In addition to the protected structures all sites recorded in the National Inventory of Architectural Heritage were examined and none would be directly impacted.

The 2019 EIAR found that some areas of the bogs were overgrown, preventing a visual inspection as part of the assessment and that archaeological features and/or artefacts may survive in these overgrown areas. The 2019 EIAR concluded areas where peat measured at depths of more than 1 m there would be a likely probability of potential wetland archaeology been revealed.

In 2021, archaeological monitoring was undertaken by IAC Ltd. of the geotechnical site investigations at the proposed 24 no. turbine wind farm development (Licence 21E0110, Whitaker, 2021, unpublished). A total of 335 no. test pits were excavated across the 3 bogs. Two



areas of archaeological potential were identified during the course of the works (Figure 14-1a and 14-1c). The first located in the northeast of Derryaroge Bog, in the townland of Ballynakill, was comprised of 2 no. wooden stakes with worked ends which may represent stray or disturbed elements. The second area of archaeological potential was located in Lough Bannow Bog, in the townland of Kilmakinlan. In an area with peat depths of 2.2 m, removal of the peat for a depth of 0.2 m revealed an east-west orientated wooden structure. It was not present in the field to the west where peat depths were 0.5 m lower. The report concluded that further mitigation would be necessary if these areas could not be avoided.

In 2022-2023 the archaeological monitoring of the ground investigations was undertaken by Through Time Ltd. under licence 18E0177ext. (Rooney, 2023). No features and/or finds of archaeological significance were encountered during the course of the monitoring.

14.3.9 Cartographic Analysis

Consultation of the Ordnance Survey Maps from 1838 to the present day provided further information to aid this assessment.

Lewis topographical map of 1837 depicts the area in general with the main route from Mullingar to Roscommon/Strokestown indicated running through the town of Lanesborough. The route of the Royal Canal is also depicted as are the towns of Mosstown and Kenagh. No details of the area where the proposed wind farm site will be located are featured. The first edition map represents the first detailed cartographic evidence of the proposed wind farm site. It indicates that all of the proposed turbines (1-22) are located within areas marked as *boggy* or *rough pasture*. The 1st edition (historic) map indicates that the proposed location of a number of turbines are positioned close to townland and/or baronial boundaries (Figures 14-4 to 14-7). According to Kelly (2006) the modern-day boundaries and in particular barony boundaries 'coincide with ancient tribal boundaries'. Numerous bog bodies and metal finds have been discovered over the years along barony boundaries.

Examination of the OSI maps indicate a change in the layout of the townland boundaries from the 1st edition (1829-46) to the 3rd edition (1900-1921) (Figure 14-3). The proposed amenity track runs along the south side of the townland boundary.





Figure 14-3: Plan indicating townland boundary from 1st edition (in red) and the 3rd edition (in blue) along amenity track exiting Lough Bannow Bog (OSI).

A comparison of the first and third edition ordnance survey maps indicate no major changes in the landscape effected by the proposed development. Some small farmsteads in the surrounds have disappeared while subdivision of land parcels is also evident, this being a product of early/mid nineteenth century land reform and reorganisation. The first and third edition ordnance survey maps show a general sparsely settled landscape with the landed estates of Mount Davy's House, Middleton House, Glebe House, Cloontamore House, Derryglogher Lodge, Cloonbony House and Mosstown House and Demesne located within 2 km of the proposed wind farm site.

Examination of the ordnance survey maps show a dryland island in the townland of Derryaroge with a roadway running west to Mount Davys (Figure 14-4). The area is divided into small fields, with two houses and internal roads. These houses may not be of particular architectural significance however their presence is testimony of the former distribution of the population in this landscape.



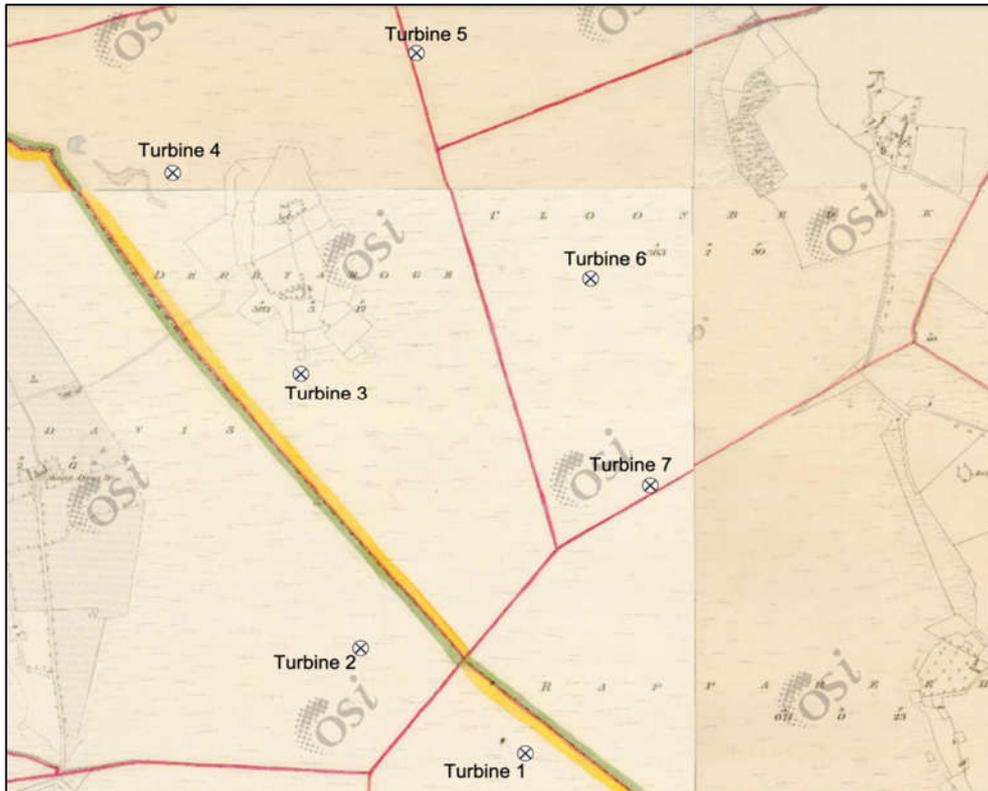


Figure 14-4: Extract of 1st edition OSi 6-inch map, Turbines 1-7.

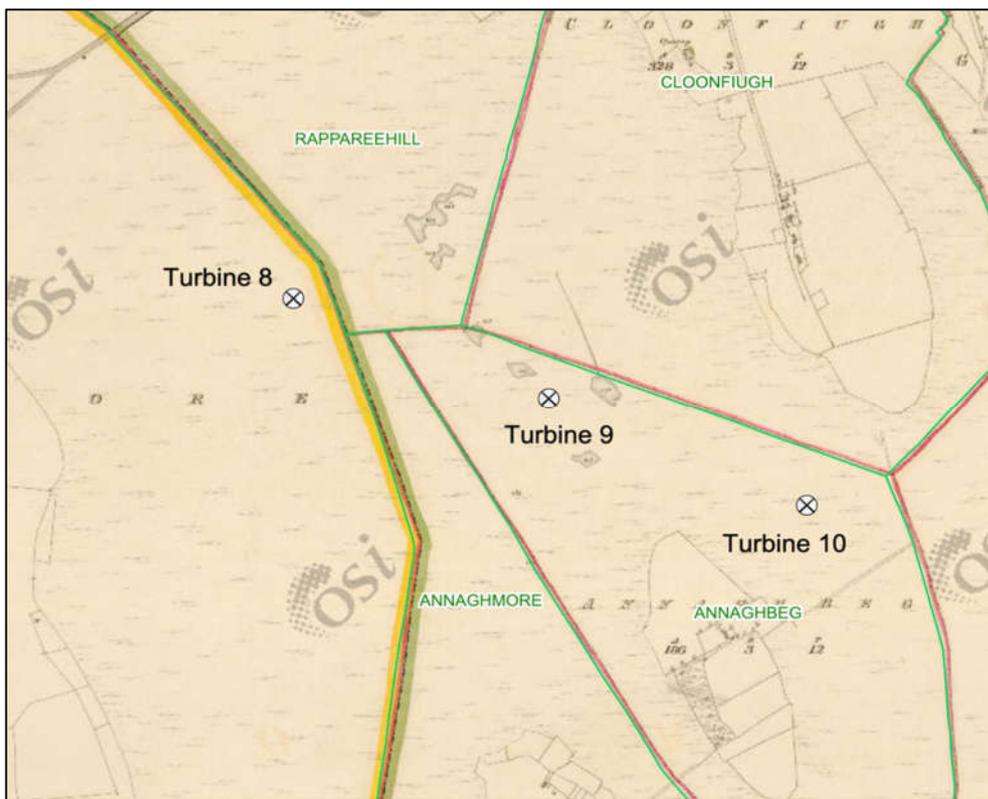


Figure 14-5: Extract of 1st edition OSi 6-inch map, Turbines 8-11.



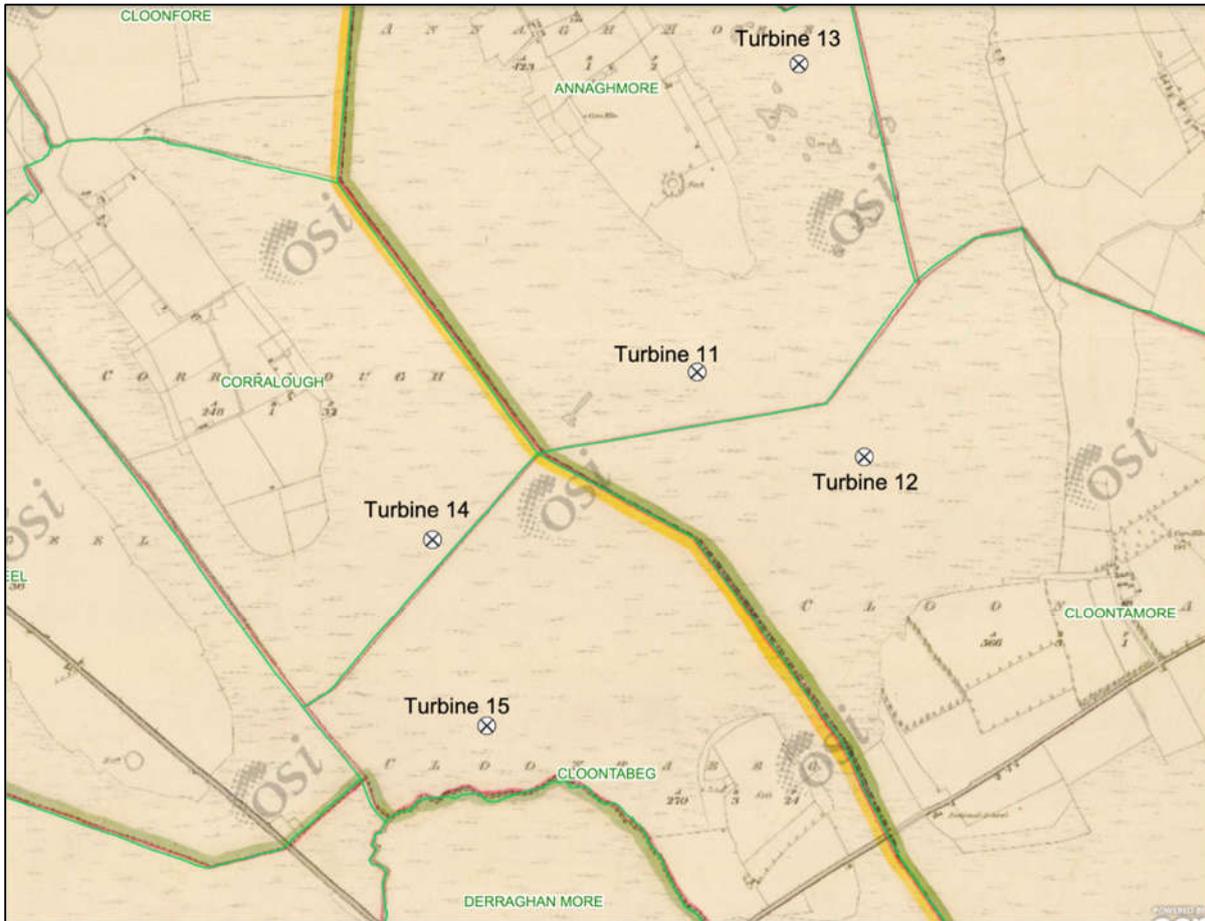


Figure 14-6: Extract of 1st edition OSi 6-inch map, Turbines 11-15.

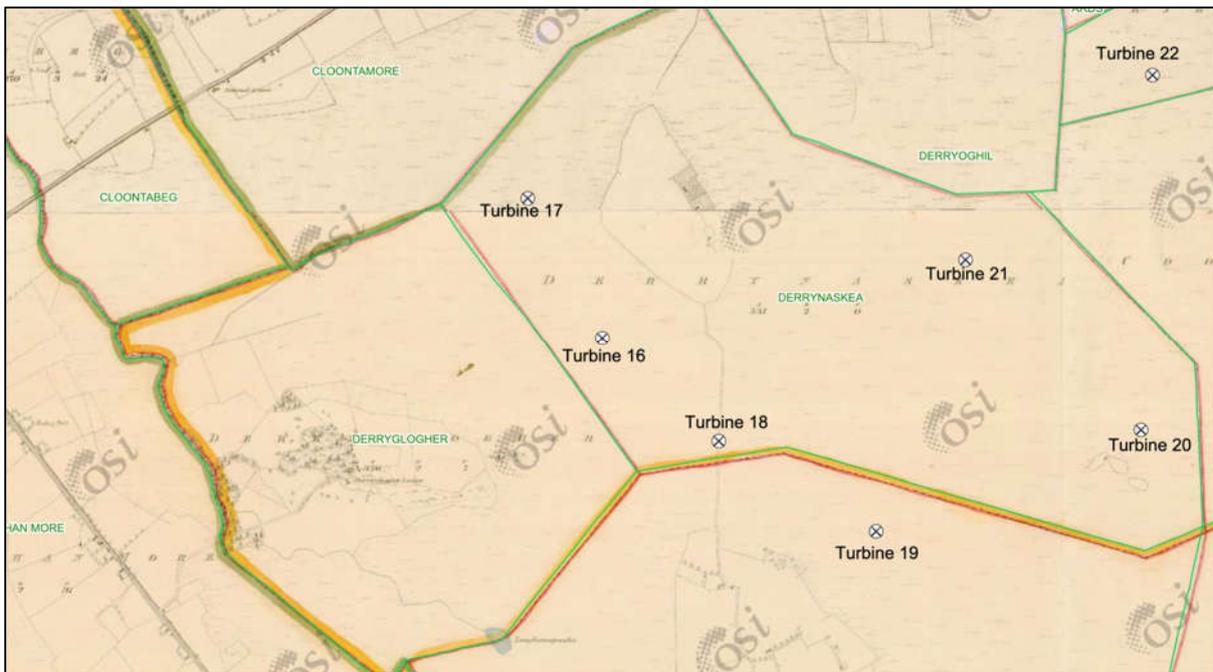


Figure 14-7: Extract of 1st edition OSi 6-inch map, Turbines 16-22.



14.3.10 Townland Names

Townlands are the smallest land divisions in the Irish landscape and many may preserve early Gaelic territorial boundaries that pre-date the Anglo-Norman conquest. The layout of Irish townlands was recorded and standardised by the work of the Ordnance Survey in the 19th century. The Irish translation of townland names often refer to natural topographical features, but name elements may also give an indication of the presence of past human activities within the townland. The Schools Collection records discoveries of treasures found in the bog and the meaning of the placenames in the area of the proposed wind farm site. The following table (Table 14-7) provides the possible translation of the Irish origin of the townland names within or adjacent to the proposed wind farm site (Figures 14-4 to 14-7).

Table 14-7: Townlands within the vicinity of the proposed development and their translations

Name	Derivation	Possible Meaning	Barony	Civil Parish
Annaghbeg	An tEanach Beag	Small marsh	Moydow	Killashee
Annaghmore	An tEanach Mor	Big marsh	Moydow	Killashee
Ards	Na hArda	High, a height	Moydow	Kilcommock
Bogganfin	Bogan Fionn	White Bog	Athlone South	Saint Peter's
Ballynakill	Bhaile na Cille	The town of the church or wood	Moydow	Killashee
Ballypheasan	Beal atha Pheusain	Mouth of Peasan's ford	Ballintober South	Roscommon
Barnacor	Barr na Cora	Top of weir, stone-fence, ford	Rathcline	Rathcline
Cloonbearla	Cluain Bearla	English meadow, pasture	Moydow	Killashee
Cloonybeirne	Cluain Ui Bhirn,	'O'Beirne's lawn or meadow'	Ballintober South	Roscommon
Cloonbony	Cluain Buinneach	Lawn of the stream	Rathcline	Rathcline
Cloonbrock	Chluain Broc	Pasture of (the) badgers	Moydow	Killashee
Cloonfinfy	Chluain Fuinche	Meadow/pasture of the Ash	Moydow	Killashee
Cloonfiugh	Cluain Fiúch	Pasture of the boil	Moydow	Killashee
Cloonfore	Cluain Fobhair	Meadow, pasture 'Meadow of the spring'	Rathcline	Rathcline
Cloonkeel	Cluain Caoil	Narrow meadow / marshy stream	Moydow	Killashee
Cloontabeg	Cluainte Beaga	Small pastures	Rathcline	Rathcline
Cloontamore	Cluainte Mór	Big pastures	Moydow	Killashee
Coolnahinch	Cúil na hInse	Corner, nook, island; river meadow	Moydow	Kilcommock



Name	Derivation	Possible Meaning	Barony	Civil Parish
Corlea	An Chorr Liath	Grey round hill	Rathcline	Kilcommock
Corralough	Corr an Locha	Round/Pointed hill, lake inlet	Rathcline	Rathcline
Derraghan Beg	An Doireachán Beag	Little Oak Wood	Rathcline	Cashel
Derraghan Mor	An Doireachán Mór	Great Oak Wood	Rathcline	Cashel
Derryadd	Doire Fhada	Wood of the Yew Wood	Moydow	Killashee
Derryaroge	Doire an Ghroig	Wood, grove, thicket	Moydow	Killashee
Derryart	Doire Airt	Wood of the Yew Wood	Moydow	Killashee
Derrygeel	Doire Gaill	Wood of the foreigner / standing stone	Rathcline	Rathcline
Derryglogher	Doire gClochair	Oak, wood stony place	Moydow	Kilcommock
Derrynaskea	Doire na Sciath	Wood of the Yew Wood	Moydow	Kilcommock
Derryoghil	Doire Eochaille	Wood of the Yew Wood	Moydow	Kilcommock
Derryshannoge	Doire Sean Bhog	Old soft Wood, grove, thicket	Rathcline	Cashel
Kilmakinlan	Cill Mhic Caoinleain	Church of the son of Caoinleain	Moydow	Kilcommock
Monksland	Fearann na Manach	Land of Monks	Athlone	St. Peters
Mosstown	Caonach Mór	Big moss	Rathcline/Moydow	Kilcommock
Mount Davys	Cluain Creamha	Meadow, lawn of wild garlic	Rathcline	Rathcline
Rapareehill	Cnoc an Ropaire	The robbers hill	Moydow	Killashee

14.3.11 Field Survey

A field inspection of the proposed wind farm site was undertaken in August 2022 and July 2023. This allowed the opportunity of first-hand observation of the terrain, which can often result in the discovery of hitherto unrecorded sites and finds. The results of the archaeological monitoring of the ground investigations (December 2022, February 2024, Licence 18E0177ext.) of the infrastructure of the proposed wind farm, combined with the Peat Probes Survey 2023 (Appendix 9-1.11 of Chapter 9 Land, Soils and Geology), were also used to inform the field survey. Peat extraction at all three bogs, has resulted in a general landscape consisting of cutaway bogs divided by drainage ditches and higher bank areas known as 'railway fields'. In



some instances, the vegetation has re-established and these areas are now overgrown while in others the peat extraction results in a flat expanse of bog. Refer to Appendix 14.7 for photographers of the field survey.

Derryaroge Bog

The proposed internal site access road travels north from the Mountdillon Office Works on the N63, entering the bog in the townland of Cloonfore and crossing an internal railway. Peat depths of 1.89 m were recorded in 2021 (Table 14.8). A temporary construction compound will be located along this internal site access road. No features and/or finds of archaeological significance were recorded in the walkover survey. No recorded monuments are located within 500 m of this internal site access road. Peat depths are recorded as 1.53 m (2021) (Table 14.8).

The internal site access road extends northwest where it divides to give access to the east of the bog and to the west where it joins with an amenity access tracks exiting the bog at a proposed amenity car park, in the southwest of Derryaroge bog. The area is a mixture of overgrown cutaway bog and internal railway lines. The cartographic record indicates that it crosses the townland boundaries between Cloonfore and Mountdavis/Barnacor and Cloonfore and Rappareehill. Ground investigations in 2021 along the amenity track recorded peat depths ranging from 0.3 - 3 m (Table 14.8). A met mast is located midway along the amenity access track in the townland of Barnacor.

Turbine T01 is located in the townland of Cloonfore in an area of cutaway bog where regeneration has resulted in a covering of thick vegetation and wild grasses. The walk over survey at turbine T01 was limited due to the overgrown nature of the terrain. Archaeological monitoring of the ground investigations in this area revealed peat (depth 0.2-0.3 m) (Table 14.8) overlying natural grey clay. No features and/or finds of archaeological significance were recorded during the walkover survey. The archaeological record indicates there are no recorded monuments located within 500 m.

The internal access site road between Turbine T01 and Turbine T02 crosses the townland boundary between Mountdavis and Cloonfore, with many of the existing drains overgrown with heathers, grasses and willow trees. The Peat Probe Survey records depths ranging between 0.5- 1 m and 1-2 m (Table 14.8).

Turbine T02 is located in the townland of Mountdavis in an area partially overgrown. Field inspection and archaeological monitoring of the ground investigations in this area revealed the scrub overlying natural grey clay. No features and/or finds of archaeological significance were recorded in the walkover survey. The archaeological record indicates there are no recorded monuments located within 500 m. The Peat Probe Survey records depths ranging between 0.36 - 1.17 m (Table 14.8).

The internal access site road between Turbines T01, T02 and T03 cross areas overgrown with trees, with many of the existing drains overgrown with heathers, grasses and willow trees (Plate 14.1). The peat depths of 0 - 0.72 m were recorded in the Peat Probe Survey (2023) (Table 14.8). The road will cross over the barony boundary between Rathcline and Moydow and townland boundaries between Cloonfore, Mountdavis and Derryaroge.





Plate 14-1: View of internal access road between Turbine T01 and Turbine T03, taken from the south.

Turbine T03 and Turbine T04 are located within the townland of Derryaroge in an area of cutaway bog where regeneration has resulted in a covering of thick vegetation and wild grasses. A deep drainage ditch (2-3 m in depth) runs north-south to the east of the turbine locations.

Field inspection and archaeological monitoring of the ground investigations in the area of Turbine T03, revealed the scrub overlying natural grey clay. No features and/or finds of archaeological significance were recorded in this area. The archaeological record indicates a gravel/stone trackway (LF017-001) is located 500 m to the west. This recorded monument was excavated by E. Rynne, in 1957 and nothing survives today.

The walk over survey at Turbine T04 was not possible due to the overgrown nature of the terrain. Archaeological monitoring of ground investigations in 2023 revealed peat depths of 1.5 m.

Between Turbine T04 and T05, the proposed internal site access road runs through an area of cutaway bog where regeneration has resulted in a covering of thick vegetation and wild grasses. Access to these areas was not possible. Ground investigations in 2021 revealed peat depths between 0.1-1.2 m (Table 14.8).

Turbine T05 will be located in the townland of Ballynakill, and cartographic evidence indicates it incorporates part of the townland boundary with Derryaroge. The turbine will be located 0.7 km from Ballynakill medieval church and possible ecclesiastical site (LF013:045) and 0.2 km to the north-east of a gravel trackway (LF012-2001). This recorded monument was excavated by E Rynne, in 1957 and nothing survives today.



Field inspection recorded peat depths of ranging between 1 - 2.4m overlying a natural grey clay. This was confirmed by the archaeological monitoring of ground investigations at this location in 2023 (Table 14.8).

A proposed amenity access track is located north of Turbine T05, to join the east-west running railway line exiting the bog at a proposed amenity car park in the NE of Derryaroge bog. The archaeological record indicates that there are no recorded monuments within 500 m of this infrastructure. It is located 400 m southwest of the potential archaeology recorded in the report on the archaeological monitoring of the ground investigations in 2021. The field walkover survey recorded where visible, peat depths of 0 - 1.5 m, with no features and/or artefacts of archaeological significance evident. The railway line has peat depths greater than one meter however inspection was limited due to the regrowth of vegetation.

Archaeological monitoring of the ground investigations in 2021 recorded potential archaeology in a test pit in the townland of Ballynakill (Figure 14-1c), the internal site access road and amenity access track is located 250 m from this potential archaeology.

Between Turbines T05, T06 and T07, the proposed internal site access road is located in the townlands of Ballynakill and Cloonbrock along a section of cutaway bog. The walk over survey was not possible due to waterlogged conditions in this area (Plate 14.2). The field walk-over survey along the disused railway recorded peat depths of 1.4 m and presented with no features and/or artefacts of archaeological significance evident (Table 14.8).

Field inspection and archaeological monitoring of the ground investigations at the location of Turbine T06 revealed the scrub overlying natural grey clay (Table 14.8). No features and/or finds of archaeological significance were recorded in the walkover survey.

Turbine T07 is located in the townland of Cloonbrock and cartographic evidence indicates it incorporates part of the townland boundary with Repareehill. The archaeological record indicates there are no recorded monuments located within 500 m. Due to waterlogged conditions it was not possible to inspect the area (Plate 14-2), however ground investigations in 2021 recorded peat depths of 2.1 m (Table 14.8).

A substation, 1no. peat deposition area, battery storage, security hut and internal site access road will be located in the townland of Repareehill in the south east of Derryaroge Bog. The field inspection and archaeological monitoring of the ground investigations revealed peat depths ranging from 0.5 - 2.5 m (Table 14.8). The archaeological record indicates a ringfort and souterrain (LF18:015001/2) 390 m to the east of the infrastructure, outside the proposed wind farm site boundary.

The internal site access road exits the bog in the south east, crossing the N63. Ground investigations in 2021 recorded peat depths of 1.26 m (Table 14.8). The proposed grid connection exits the bog here and using horizontal directional drilling (HDD) under the N63.





Plate 14-2: General view of the internal access road between Turbines T05, T06 and T07, taken from the north.

Derryadd Bog

The proposed internal site access road enters Derryadd Bog from the N63, to the east and west of the Mounddillon Works Offices and running south, it divides south east towards Turbine T08 (Plate 14-3), south west along the west boundary of the proposed windfarm site. The proposed grid connection runs under the N63. A proposed construction compound is located to the east of the Mounddillon Works Office (Figure 14-1) and Peat Probe Survey indicated depths of peat of 1.17 m (Table 14.9). The archaeological record indicates a cluster of recorded monuments (LF017-076 -076006, LF017-106-121) in the townland of Cloonfore, 500 m south-west (Table 14-3). These features were excavated in 2000 by Noel Dunne and were comprised primarily of roadways suggesting they may have been used as a crossing area between the dryland promontory at Annaghbeg and the dryland island at Cloonfiugh.

The proposed internal site access roads and amenity access track runs north to south along the west boundary of the proposed wind farm site in an area of overgrown raised bog, in the townland of Cloonfore. The archaeological record indicates a cluster of recorded monuments (LF017-076 -076006, LF017-106-121) as detailed above, within 500 m of the internal site access and amenity access track. A recorded monument (LF017-007) is recorded 190 m to the west of the internal access and amenity track. The field walkover survey combined with ground investigations in 2021 recorded depths of peat, up to a maximum of 3.8 m (Table 14.9). No features and/or artefacts of archaeological significance were encountered in the walkover survey.





Plate 14-3: View of cutaway bog partially overgrown and waterlogged along the proposed internal access road towards Turbine T08

Turbine T08 is located in the townland of Cloonfore in an area of cutaway bog where regeneration has resulted in a covering of thick vegetation (Plate 14-3). The walk-over survey was not possible due to the overgrown nature of the terrain. The archaeological record indicates a cluster of recorded monuments (LF017-076-076006, LF017-106-121) as detailed above, located over 150 m west of Turbin 8. These features have been excavated and no trace survives. Archaeological monitoring of the ground investigations in December 2022 recorded peat depth of 0.75 m overlying the grey clay with occasional boulders. Ground investigations revealed peat depths of 0.27 m (Table 14.9).

A borrow pit (BP-01) and 1no. peat deposition area will be located to the north of Turbine 09, in an area partially overgrown with willow trees and vegetation, in the townlands of Rappareehill, Cloonfiugh and Annaghbeg. The archaeological record indicates a road (LF018-075) 250 m to the north. The topographical files of the National Museum of Ireland record the findings of a wooden platter (NMI Reg. 1958:25) discovered near the surface of the old railway, located 50 m to the east of the proposed borrow pit (BP-01) location. Site investigations recorded peat depths of 1 m (Table 14.9).

The proposed internal site access road between Turbine T08 and the borrow pit (BP-01), and Turbines T09 and T10 are in an area of cutaway bog overgrown in parts with willow trees and vegetation, preventing a full inspection of the area. The cartographic record indicates that it crosses the barony boundary of Rathcline and Moydow and townland boundary of Cloonfore and Annaghbeg. The field walk-over recorded shallow peat deaths with subsoil evident. Peat depths ranging from 0.3-0.9 m were recorded in the archaeological monitoring of ground investigations in December 2022 (Table 14.9). Two recorded monuments (LF018-090 & 091) are located 230 m to the east of the Turbine T10. Located in the townland of Cloonfiugh, these



sites were recorded in the IAWU survey in 1991 however, no evidence survived in the re-assessment survey in 1999. The sites were comprised primarily of roads – class 3 Toghers.

Turbines T09 and T10 are located in an area of overgrown cutaway bog, in the townland of Annaghbeg. Recorded monuments (LF018-076001- LFF018-076079) are located 150 m away (Figure 14-2). These sites were recorded in the IAWU survey in 1991 however, no evidence survived in the re-assessment survey in 1999. The sites were comprised primarily of roads – class 2 and class 3 Toghers. Both the archaeological monitoring of the ground investigations and the peat probe survey in 2023, recorded natural clays below the scrub (Table 14.9).



Plate 14-4: View of raised area in the townland of Annaghbeg, location of proposed north to south running internal access road between Turbine T08 and borrow pit (BP-01).

The proposed internal site access road extends 3 km south of Turbine T08 along a raised area of bog (Plate 14.4). The cartographic record indicates the proposed internal road will cross a number of townland boundaries and the barony boundary between Moydow and Rathcline (Figure 14-5 and 14.6). The archaeological record indicates that the route extends through the recorded monument LF18-080. This monument was recorded by the IAWU as a togher (1999), extending east-west for 500 m in length, it was 2.6 m in width and 0.15 m in depth. Site inspection in 2017, found no evidence of this Togher on the surface or in the existing north-south running drains. It would appear that this site has been cleared in the course of peat harvesting (Plates 14.4). A field walk-over survey in 2018 recorded a depth of peat at 0.30 m compared to the Bord na Móna Peat Depth Survey of 2015, which recorded levels of peat of 2.5 m.

Two proposed borrow pits (BP-03 & BP-04) (Figure 14-1) are located in an area of cutaway bog where regeneration has resulted in a covering of thick vegetation. The northern borrow pit (BP-03) will be located in the townland of Annaghmore and has a ringfort (LF018-035) located 250



m to the north-east. The southern borrow pit (BP-04) will be located in the townlands of Cloontamore and Cloontabeg. No recorded monuments are located within 500 m. The peat probe survey recorded peat depths of 0.5 m (Table 14.9).

Turbines T11 and T12 and the internal site access roads between these turbines are located in an area of cutaway bog where regeneration has resulted in a covering of thick vegetation. The thick vegetation prevented a full inspection of the area (Plate 14.5). The archaeological record indicates that there are no recorded monuments located within 500 m. Ground investigations recorded peat depths of 0.2-0.3 m (2023) (Table 14.9).



Plate 14-5: View of thick vegetation in the area of Turbines T11 and T12.

Turbine T13 is located in an area of cutaway bog with many of the existing drains overgrown with heathers and grasses. Located in the townland of Annaghmore, a ringfort (LF018-035) is located 350 m to the south-west. Walkover survey, inspection of drains and the archaeological monitoring of the ground investigations revealed a maximum peat depth of 1 m (Table 14.9). Nothing of archaeological significance was noted in the exposed peat.

The internal site access road runs south from Turbine T13 to a borrow pit (BP-02), in an area of cutaway bog partially covered with heathers and grasses. Peat probe survey indicates peat depths of 1.26 m and site investigations recorded peat depths of 0.4 m (Table 14.9). The cartographic record indicates the proposed internal road will cross the townland boundaries between Annaghmore and Cloontamore (Figure 14-5 and 14-6). The archaeological record indicates that there are no recorded monuments located within 500 m of the proposed internal road. Nothing of archaeological significance was noted in the exposed peat.

Turbines T14 and T15 are located in the south west of Derryadd bog in an area of cutaway bog partially overgrown with heathers and grasses. The cartographic record indicates the proposed



amenity access track between the two turbines will cross the townland boundaries between Corralough and Cloontabeg (Figure 14-5 and 14-6). The archaeological record indicates that there are no recorded monuments located within 500 m. Walkover survey, inspection of drains and the archaeological monitoring of the geotechnical ground investigations revealed a maximum peat depth of 0.8 m (Table 14.9). Nothing of archaeological significance was noted in the exposed peat.

A proposed internal site access road will travel south along the western boundary of the proposed wind farm site. The archaeological record indicates no recorded monuments within 500 m. The field walk-over survey recorded cutaway bog and an overgrown disused railway field with significant peat depths remaining (Plate 14.6). The Bord na Móna Peat Depth Survey (2015) records depths of peat of 1.1-2.5 m.



Plate 14-6: View of the 'disused railway field' that runs south in the townland of Derraghan More, taken from the north.

A proposed construction compound is located in the south of Derryadd Bog and no features and/or artefacts of archaeological significance were recorded during the field walkover.

The internal road runs south to exit Derryadd Bog. The cartographic evidence indicates the internal access road crosses the townland boundary of Cloontamore and Derraghan More and the barony boundary of Moydow and Rathcline. The field walkover survey recorded peat depths ranging between 0.5-1 m and no features and/or artefacts of archaeological significance were identified.

Lough Bannow

The proposed internal site access road enters the Lough Bannow Bog from the R398, in the townlands of Cloontabeg/Derraghan More. Archaeological monitoring of the ground investigations (2018) recorded peat depths of 3.7 m overlying the grey clay (Table 14.10).

A proposed temporary construction compound is located to the immediate east of the internal site access road in the townland of Cloontabeg. The archaeological record indicates no



monuments within 500 m. The peat probe survey recorded peat depths of 3.15-4.14 m in 2023 (Table 14.10).



Plate 14-7: View of the 'disused railway field' and location of internal access road, along the west boundary in Lough Bannow bog, taken from the north.

The proposed internal site access road travels south along a railway before veering east through an area of cutaway bog (Plate 14.7). The cartographic record indicates it will run through the townlands of Derryghan More, Cloontabeg, Derrynagloher and Derrynaskea and the barony boundary of Rathcline and Moydow. The archaeological record indicates a ringfort (LF22-003) located 390 m to the west of the proposed internal site access road, outside the boundary of the proposed wind farm site. No features and/or artefacts of archaeological significance were identified. The proposed internal site access road runs to the north of Derryglogher House. Field examination and the peat depth survey record 0.1-1 m of peat at this location (Table 14.10).

The proposed internal site access road travels along a railway and runs north to Turbines T16, T17 and T18 through an area of cutaway bog where regeneration has resulted in a covering of thick vegetation (Plate 14-7). The archaeological record indicates a road – class 3 Togher (LF22-070) located 74 m to the west of the internal access road. Field inspection could not be undertaken in this heavily overgrown area. The peat probe survey recorded peat depths of 0.9 m in 2023 (Table 14.10).

Turbine T16 is located in the townland of Derrynaskea in an area of cutaway bog. Examination of the Archaeological Survey of Ireland records no monuments within 500 m of Turbine T16 (Plate 14-8). The field walkover survey and archaeological monitoring of ground investigations



recorded peat depth of 1.9 m with no features and/or artefacts of archaeological significance. The peat probe survey recorded peat depths ranging from 1.8-3.6 m (2023) (Table 14.10).

Turbine T17 is located in an area of overgrown cutaway bog in the townland of Derrynaskea (Plate 14-8). The peat probe survey recorded peat depths ranging between 0.27-1.08 m (Table 14.10). Archaeological monitoring of the ground investigations 2022, revealed scrub overlying the natural clay. The archaeological record indicates a road – class 2 Togher (LF22:084042) to the immediate east. A concentration of archaeological sites to the north, west and east of Derrynaskea island indicate intense activity in this area. A cluster of monuments (LF018-084071- LFF018-084073-76, 84041-042, 84007-12, 84049 of which are located within 500 m) are recorded to the north of the proposed turbine. Examination of the ASI records these monuments are no longer extant. The topographical files of the National Museum of Ireland record a wooden vessel (NMI Reg. 1958:17) from the townland of Derrynaskea.



Plate 14-8: View of location of Turbine T16.

Turbine T18 is located in the townland of Derrynaskea in an area of cutaway bog. The archaeological record records no monuments within 500 m. The field walkover survey and archaeological monitoring of ground investigations recorded peat depth of 1.8 m with no features and/or artefacts of archaeological significance (Table 14.10).

The internal site access road continues along the east to west running railway and turns south-east for 190 m to Turbine T19, located in the townland of Corlea. No archaeological monuments are recorded within 500 m while archaeological monitoring of ground investigations, record peat depths of 0.9 m at this location (Table 14.10). No features and/or artefacts of archaeological significance were encountered in the course of the field walkover survey.



The proposed amenity access track extends south-east from Turbine T19 joining a north to south running proposed amenity access track which enters the bog from the south along a disused railway field with peat depths of 4 m and cutaway bog in the townland of Corlea (Table 14.10). The proposed amenity car park is located in the SE of the bog. The archaeological record indicates a cluster of monuments to the east (Figure 14-1c). The 2013 re-assessment survey found that no sites remain extant, indicating that all these sites have been excavated and/or cleared. Nothing of archaeological significance was encountered.

The proposed amenity access track crosses the railway and runs north before turning east to Turbine T21. Extending through an area of cutaway bog where regeneration has resulted in a covering of thick vegetation. The archaeological record indicates archaeological monuments within 500 m. Field walk-over survey could not be undertaken in the heavily overgrown area. The cartographic record indicates that it crosses the townland boundary of Derrynaskea and Corlea. Bord na Móna peat depth survey undertaken in 2020 records peat depths varying between 0-1 m (Table 14.10).

Turbine T21 is located in the townland of Derrynaskea in an area of overgrown cutaway bog. The archaeological monitoring of ground investigations recorded peat depths of 0.3 m (Table 14.10). The archaeological record indicates no monuments in the vicinity of turbine T21.

The proposed internal site access road extends east joining the north-south running internal site access road between Turbine T20 to Turbine T22, across an area of densely overgrown cutaway bog. Turbine T20 is located in the townland of Derrynaskea with a cluster of monuments located 330 m to the south in the townland of Corlea. Archaeological monitoring of the ground investigations recorded peat depths of 1 m (Table 14.10). Nothing of archaeological significance was encountered.

Turbine T22 is located in the townland of Kilmakinlan. No recorded monuments are located within 500 m of this turbine. Field walk-over survey and archaeological monitoring of ground investigations in 2022 recorded subsoil and the peat at levels of 1.6 m (Table 14.10).



Plate 14-9: View of overgrown area along the proposed amenity access track where it exits Lough Bannow Bog.



A proposed amenity access track runs north of Turbine T22 and exits Lough Bannow Bog along an existing Bord na Móna drain, joining the existing cycle way along the Royal Canal at the proposed amenity car park (see Figure 14-1). Ground investigations in 2021 recorded peat depths between 0.5-2.7 m (Table 14.10). Archaeological monitoring of the ground investigations in 2021 recorded potential archaeology in a test pit in the townland of Kilmakinlan (Figure 14-1c) along the line of the proposed amenity access track. The cartographic analysis records that the proposed amenity access track will cross the townland boundary of Kilmakinlan and Ards. The field walk-over survey recorded a linear earthen bank (1.60 m in height and 2 m in width) surviving for a distance of approximately 1.3 km along the south end of the proposed amenity access track. Cartographic analysis indicate that this is not a townland boundary and may be associated with drainage excavations (Figure 14-3).

Table 14-8: Peat Depths and Potential Arch – Derryaroge Bog

Area	Peat Probes	Site Investigations	Potential for sub-surface Wetland Archaeology
Access into Derryaroge Bog in southwest	0.09 m		Low
Internal site access road	1.89 m		High
Temporary Construction Compound	1.53 m		High
Internal site access road between Construction compound and T01	0.27 m		Low
Junction of internal site access road that links to east of bog	None	None	
T01 hardstand	0.54- 0.9 m	0.2 m	High
Internal site access road that runs west from T01	1.62 m		High
Amenity access track that exits bog in the southwest		0.3-3 m	High
Internal site access road that extends west to join amenity access track – that exits the Bog in the southwest	0.54 m		low
T02 hardstand	0.36-1.17 m	0.1m	High
Internal site access road between T01 and T03	0.72 m		Medium
T03 hardstand	No Access	0.1 m	Low
T04 hardstand	No Access	1.5 m	High
Internal site access road that runs NNW of T04	Under water		



Area	Peat Probes	Site Investigations	Potential for sub-surface Wetland Archaeology
Internal site access road between T04 and T05	No Access	0.1-1.2 m SI 2021	High
T05 hardstand	0.99 m	2.4 m	High
Amenity access track from T05 and exits bog in northeast			
Internal site access road between T05 and T06	None	0.05 m	Low
Internal site access road between T06 and T07	None	0.2-2.4 m SI 2021	Range from low to high
T07 hardstand	none	2.1 m	High
Internal site access road that runs south and runs west to join north-south running amenity track in west of bog	0.18 m		Low
Peat deposition area	0.54 m & 0.9 m		low
Substation	1.26 m	1.2 m	High
Battery Storage		1.2 m	High
Internal site access road adjacent to Substation		1.53-2.43 m	High
Internal site access road that runs east-west in the south of Derryaroge bog	1.26 m		High

Table 14-9: Peat Depths and Potential Arch – Derryadd Bog

Area	Peat Probes	Site Investigations	Potential for sub-surface Wetland Archaeology
Construction Compound	1.17 m		High
Internal site access road south of Moundillion Office	0.43- 1.71 m		High
Internal site access road that runs along site boundary in the northeast	None	3.8n SI 2021	High



Area	Peat Probes	Site Investigations	Potential for sub-surface Wetland Archaeology
Internal site access road that runs NE-SW	0.09 m		Low
Internal site access road that runs to north of Borrow Pit 01			
T08 hardstand	0.27 m	0.75 m	Low
Junction along Internal access road south of T08 that runs east to T09	1.35 m		High
Borrow Pit 01		1 m	High
Internal site access road to east of T09	0.35 m		low
T09 hardstand	0.72 m	0.3-0.9 m	High
T10 hardstand	0.09-0.27 m	0.3 m	Low
Internal site access road to south of T08	1.35 m		High
T11 hardstand	No Access	0.3 m	Low
T12 hardstand	No Access	0.2 m	Low
T13 hardstand	No Access	1 m	High
Internal site access road to BP-04			High
T14 hardstand	0-0.27 m	0.7 m	High
Internal site access road between T14 and T15	1.89 m		High
T15 hardstand	0.9 m	0.8 m	High
Internal site access road site boundary adjacent to drainage	3.6 m		High
Junction of Internal site access road to the east of the construction compound in the south	0.81 m		High
Junction of Internal site access road along southwest Site Boundary in the south	0.81 m		High
Borrow Pit 02	1.26 m	0.4 m	Low



Area	Peat Probes	Site Investigations	Potential for sub-surface Wetland Archaeology
Borrow Pit 03		0.5 m	Low
Borrow Pit 04		0.4 m	Low

Table 14-10: Peat Depths and Potential Arch – Lough Bannow Bog

Area	Peat Probes	Site Investigations	BnM Peat Depths 2020	Potential for sub-surface Wetland Archaeology
Construction Compound	3.15-4.14 m			High
Internal site access road into Lough Bannow Bog	2.97 m			High
Internal site access road that runs along site boundary in the east of Lough Bannow Bog	None		Adj. to railway up to 4 m	High – Field Examination up to 4m
Internal site access road that runs east-west to the north of ISPCA	0.63 m			High
Junction of Internal site access road that runs east-west and north-south to T16, T17 of BP- 01	0.9 m			High
T16 hardstand	1.8-3.6 m	1.9 m		High
T17 hardstand	0.27-1.08 m			High
T18 hardstand	0.54 - 0.9 m	1.8 m		High
Junction of internal site access road that runs east-west and towards T19	0.63 m			High
T19 hardstand	0.72 m	0.9 m		High
Internal site access road that runs east-west to T20	none		Up to 4 m	High Field Inspection up to 4m
Amenity access track to T21	none	none	0-1 m	No access
T20 hardstand	0.54 m	1 m		High



Area	Peat Probes	Site Investigations	BnM Peat Depths 2020	Potential for sub-surface Wetland Archaeology
T21 hardstand	0.27 m	0.3 m		Low
Internal site access road between T20 & T22			0- 2.50 m	Low to High
T22 hardstand		1.6 m		High
Amenity access track to north of T22		0.5-2.7 m	0-2.5 m	Low to High
Amenity access track in the south of Bog		4 m SI 2021		High

14.3.12 Proposed Turbine Delivery Route

A desk-based assessment was carried out on the proposed turbine delivery route (TDR). The delivery route is along existing roads, with some temporary accommodation works required in order to facilitate the delivery of turbine components. These accommodation works are detailed in Section 3.3.15 of Chapter 3 (Description of the Proposed Development) and include minor works such as modifications to existing signage and roundabouts in Roscommon and Athlone. The vast majority of the monuments and structures are located on either side of the roadway (Appendix 14-5 Description of SMR's and NIAH along the proposed Turbine Delivery Route).

Proposed Turbine Delivery Route (TDR)

The proposed Turbine Delivery Route (TDR) will use exit 12 from the N6 at Athlone, travel north to Roscommon Town, east to Lanesborough and then south-east along the R392 for 6.5 km to the proposed wind farm site access.

The assessment recorded a total number of 21 no. Recorded Monuments, 11 no. Recorded Protected Structures and 17no. NIAH features adjacent to the proposed TDR (Tables 14.10-14.11) (Figures 14-8 to 14-11).

The route exits the N6 at Athlone travelling north on the N61, bypassing Lecarrow to Roscommon Town. The NIAH features and protected structures along the road date to the 19th and 20th century. The telephone box (RPS 4500766) dating to 1960 located along the N61 adjacent to Lecarrow is a Protected Structure. The route will pass through the town of Knockcroghery which was famous for its production of clay pipes in the 19th century (Figure 14-9). According to Weld, in 1832, there were eight kilns producing 100-500 pipes per week and by the late 1800's there were almost 100 employed. The production continued up until the early 20th century. A water pump (RPS 4200515, NIAH 31818003) dating to the mid-19th century is located set back from the main road. The town of Knockcroghery was almost destroyed by fire in 1921 with only a number of the original houses surviving along the main street (RPS 4200514/15, NIAH 31818001/2). A house was built on the site of a former clay workshop (RPS 4200513, NIAH 31818001). Two churches dating to the late 19th century and early 20th century are located in the S of the town (RPS 4200517/18, NIAH 3181005/6). The railway station (RPS



4200519, NIAH 31818007) is located at the edge of the town and was used until the 1960's. The Ballymurray Quaker Church and Cemetery (RPS 420042) is located on the road between Knockcroghery and Roscommon. The quaker community were unique as the only long-term pre-famine Quaker community west of the Shannon, arriving in 1717 and continuing until 1848.

There are 12no. Recorded Monuments within 10 m of the N61 between Athlone and Roscommon (Figure 14-11). These sites comprise of 8no. ringforts (RO48:53, RO048-045, RO45:155, RO45:225, RO45:112, RO45:150, RO42:67, RO42:38) one barrow (RO42:100), a meeting house/burial ground (RO42:172001/2), a standing stone (RO45:102) and 2no. megalithic structures (RO45:53001/2). Southwest of Lecarrow the megalithic tomb (RO45:53) is accessed from the N61 road.

The proposed route extends north to the historic town of Roscommon (RO39-43) and runs along the edge of the *zone of notification* of the town. Examination of the photographs and plans of the proposed minor changes at Athlone and Roscommon roundabouts (Appendix 15-3 - Abnormal Indivisible Load Route Survey - December 2023) indicate minor ground disturbance. The proposed changes include the removal of signage, bollards and one tree.

Roscommon is derived from the Irish *Ros Comáin*, meaning Colman's Wood. A monastery (RO039-0430006-) was founded here by St Comán, who died in AD 747. The town continued to be of importance throughout the medieval period. There are two recorded monuments along this section of the route. RO40:24 marks the location of a ringfort.

The TDR travels east from Roscommon town on the N63 crossing the Shannon at Ballyleague and Lanesborough. Along the roadside face of an abandoned schoolyard is a rock scribing-folk art (RO36:67) and local folklore interprets it as the tale of a failed eviction. West of Lanesborough are two monuments, a church and well (RO36:48001/2). The well which is dedicated to St Faithleic is still venerated and accessed from the N63 through a stile in the wall.

The TDR travels though the zone of notification of the historic town of Lanesborough (LF17:3). Located on the eastern side of the River Shannon and Lough Ree, it is accessed via a 6-arch road bridge originally built ca. 1835-1843 (NIAH 13310001) (Figure 14.10). The structure has been considerably altered since the 1970's. It is situated at the site of a ford (RO37:009, LF17:3003) and replaced an earlier medieval nine-arch stone bridge (RO37:005, LF17:3001) which was described in 1682 as 'in length and breadth the largest in the kingdom'. According to the Urban Archaeological Survey (Bradley et al., 1985) the extent of the 13th century Anglo-Norman borough at Lanesborough is unknown and it may be that the 17th century plantation settlement overlies it. The Down Survey (1655-6) map and notes by Nicholas Dowdall in 1682 indicate that the 17th century borough was quite small, consisting of one main street with property plots extending off on both sides. No traces of any 17th century buildings survive today, with the castle and the fort having been levelled. Numerous NIAH features are located in the town- many of which are associated with the Bord na Móna works (RPS 303). The Bord na Móna housing development at Lanesboro consisted of sixty-one houses being built for workers (NIAH 13310022). The estate was designed by Frank Gibney and although the alterations have been made internally the plan remains the same. Numerous 19th century features survive in the town with evidence of railings/gates and houses dating to that period.

The TDR continues south-east on the R392 to the site entrance. Two ringforts (LF17:11, LF18:55) are located within 10 m of the R392 and, a NIAH feature (13401708 an old schoolhouse) is situated along the south side of the road.



Table 14-11: List of NIAH and RPS adjacent to Turbine Delivery Route

Monument	Townland	NIAH	RPS
Presbytery	Cappalisheen	31949002	4900577
Church	Cornaseer	31949003	4900121
Telephone Box	Lecarrow		4500766
Catholic Church	Knockcroghery	31818005	4200517
Parochial House	Knockcroghery	31818006	4200518
Railway Station	Knockcroghery	31818007	4200519
Water Pump	Knockcroghery	31818003	4200515
House	Knockcroghery	31818002	4200514
House	Knockcroghery	31818001	4200513
Quaker Church	Ballymurray		4200042
Country House	Carrowrow	31940002	
Bridge	Lanesborough	13310001	
Gate	Lanesborough	13310002	
House	Lanesborough	13310003	
House	Lanesborough	13310004	
Parochial House	Lanesborough	13310009	
Church	Lanesborough	13310010	
Worker's House	Lanesborough	13310012	303

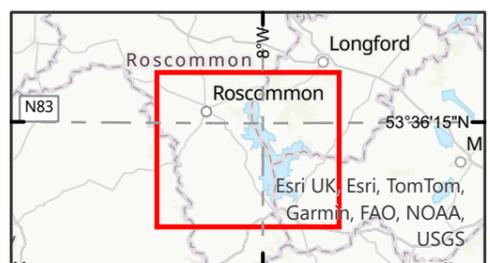
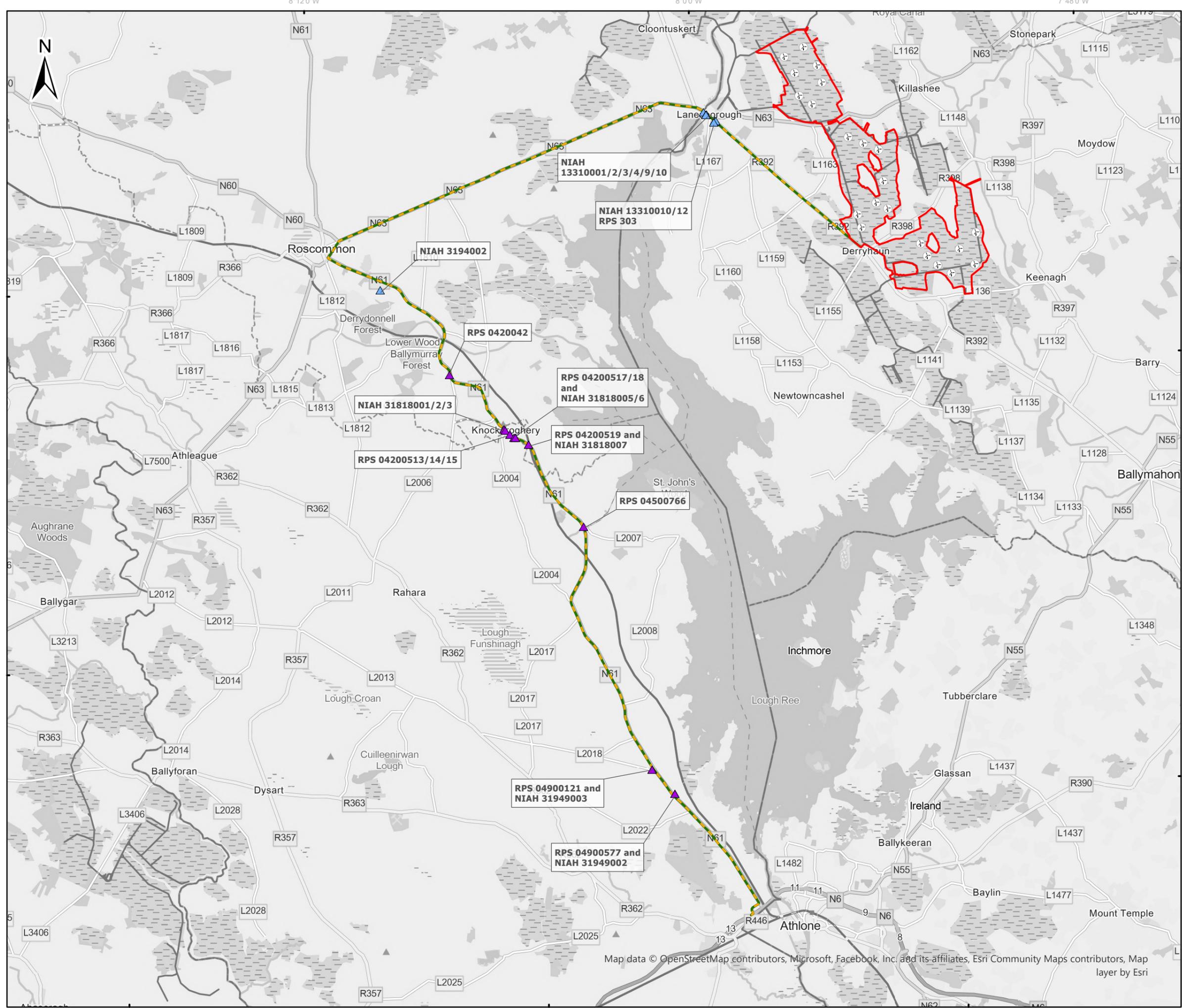
Table 14-12: List of Recorded Monuments adjacent to the Turbine Delivery Route

Townland	Site	RMP
Moyvannan	Ringfort / rath	RO048-053
Moyvannan	Earthwork	RO048-045
Carrowderry	Ringfort / Rath	RO045-155
Carrowderry	Ringfort / rath	RO045-225



Townland	Site	RMP
Carrigan More	Ringfort / rath	RO045-112
Killiaghan and Gort	Ringfort / Rath	RO045-103003
Killiaghan and Gort	Soutterain	RO045-102
Knockanyconor	Megalithic Tomb	RO045-053001
Knockanyconor	Megalithic Structure	RO045-053002
Killeenrevagh	Barrow	RO042-100
Galey	Ringfort / rath	RO042-067
Srah	Ringfort / rath	RO042-038
Corgarve	Meeting House	RO042-172001
Corgrave (Athlone North by.)	Burial Ground	RO042-172002
Roscommon	Historic Town	RO039-043
Cloonybeirne	Ringfort / rath	RO040-024
Coolshagtena	Rock Scribing	RO036-067
Culliagh	Church	RO36:48001
Culliagh	Holy Well	RO36:48002
Lanesborough / Ballyleague	Bridge	LF017-003001 / RO037-005
Lanesborough / Ballyleague	Ford	LF017-003003 / RO037-009
Lanesborough	Historic Town	LF017-003
Lanesborough	Castle	LF017-003002
Lanesborough	Fortification	LF017-003011





Legend

- Proposed wind farm site boundary
- Turbine Layout
- Turbine Delivery Route
- Study area: 20m buffer from TDR
- ▲ Record of Protected Structures (RPS)
- ▲ National Inventory of Architectural Heritage (NIAH)

0 2.5 5
Kilometers

NOTES

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. ALL LEVELS RELATE TO ORDANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P	I.H

Client: **Bord na Móna**

Project: **Derryadd Wind Farm**

Title: **Figure 14.8
Plan of RPS and NIAH along the
proposed turbine delivery route**

Scale @ A3: 1:120,000

Prepared by: S.Pezzetta Checked by: I.Heanue Date: February 2025

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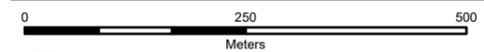
Map Ref: 11399-110-RPS..NIAH-TDR-TOB-A Draft: **A**



759200

Legend

- Proposed wind farm site boundary
- Turbine Layout
- Turbine Delivery Route
- Study area: 20m buffer from TDR
- ▲ Record of Protected Structures (RPS)
- ▲ National Inventory of Architectural Heritage (NIAH)



- NOTES**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING!
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE!
 3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES!
 4. ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P	I.H

Client:
Bord na Móna

Project:
Derryadd Wind Farm

Title:
**Figure 14.9
Plan of RPS in the
town of Knockcroghery**

Scale @ A3: 1:8,000

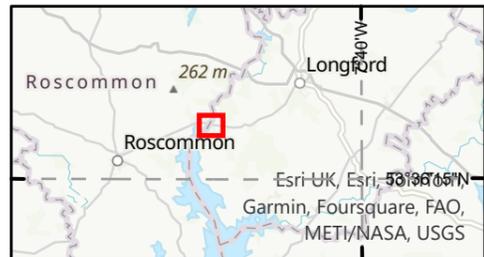
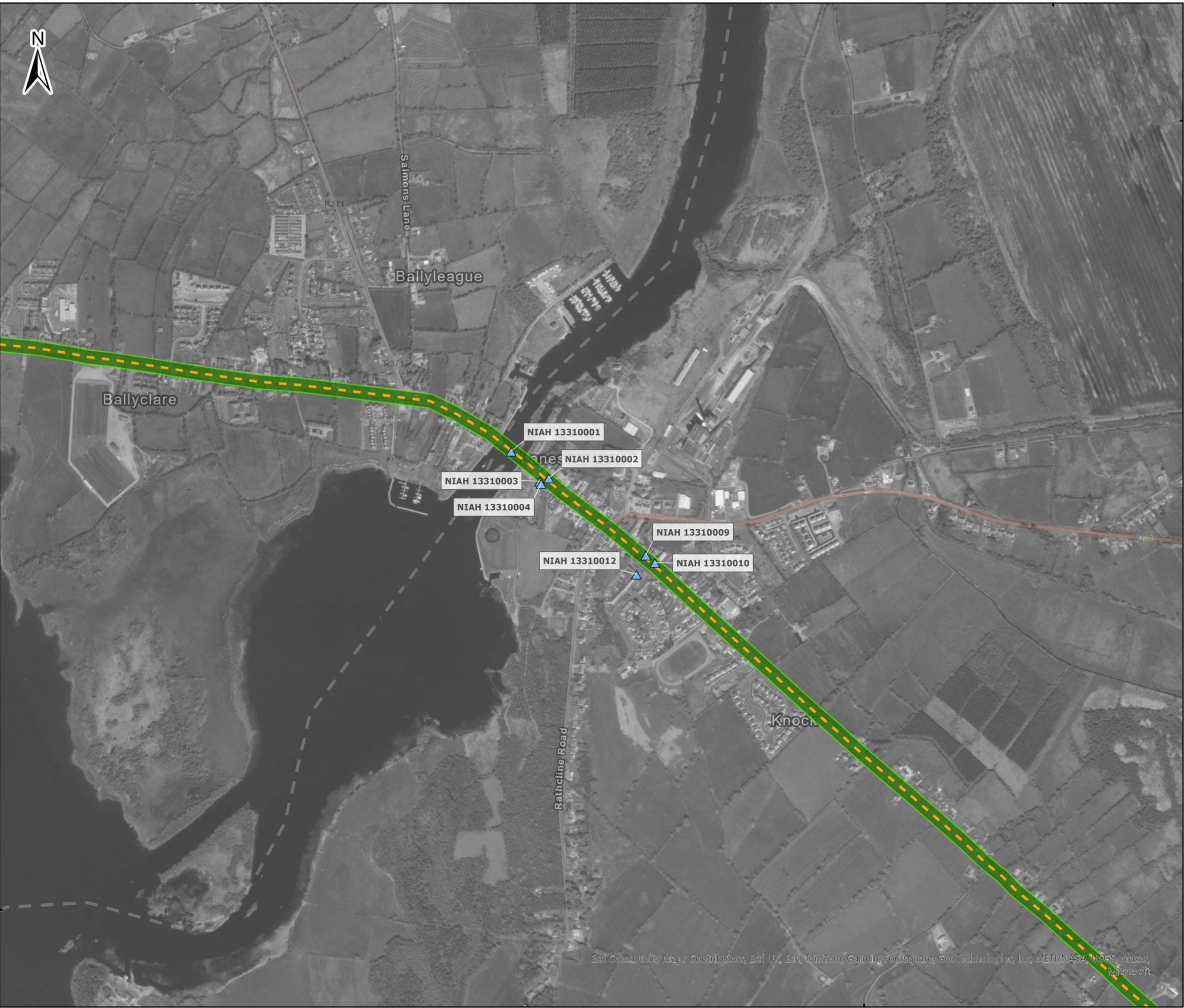
Prepared by: S.Pezzetta Checked by: I.Heanue Date: February 2025

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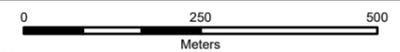
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Map Ref: 11399-111-RPS-KNOCK-TOB-A Draft: A



- Legend**
- - - Turbine Delivery Route
 - █ Study area: 20m buffer from TDR
 - ▲ National Inventory of Architectural Heritage (NIAH)



- NOTES**
1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING!
 2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE!
 3. ENGINEER TO BE INFORMED OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES!
 4. ALL LEVELS RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
A	05/02/2025	First issue	S.P	I.H

Client:
Bord na Móna

Project:
Derryadd Wind Farm

Title:
**Figure 14.10
Plan of NIAH and RPS in the town of Lanesborough**

Scale @ A3: 1:10,000

Prepared by: S.Pezzetta Checked by: I.Heanue Date: February 2025

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Map Ref: 11399-112-RPS..NIAH-LANES-TOB-A	Draft: A
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Proposed Construction Traffic

The proposed route to the proposed wind farm site, for general HV construction traffic, will primarily use the same route as detailed above. The route will differ in that it will divide at Lanesborough accessing Junction 1 on the N63 for construction traffic accessing Derryaroge Bog and the existing Mountdillon works yard.

It is expected that further HV traffic will travel from the south and east on existing roads from the towns of Longford and Ballymahon.

14.3.13 Summary of Baseline Conditions

In accordance with EPA Guidelines (EPA 2022), the context, character, significance and sensitivity of each archaeological / cultural heritage asset requires evaluation, and the significance of the effect is then determined by considering the significance / sensitivity of the asset and the predicted magnitude of the effect. Examination of the EPA Environmental Sensitivity Mapping gives all monuments listed on the Sites and Monuments Record a No.3 rating and all NIAH a No.2 rating.⁵

There is a total of 333 no. SMR's (EPA No.3 rating) located within 500 m of the infrastructure associated with the proposed wind farm site (5 no. of which are located outside the proposed wind farm site boundary). The 328 no. SMR's are no longer extant. There is a total of 21no. SMR's (EPA No.3 rating) located within 10 m of the proposed TDR. None of these monuments will be directly effected by the proposed development.

There is a total of 26 no. NIAH features (EPA No. 2 rating) of which 12 are recorded Protected Structures, located within 2 km of the proposed wind farm site boundary, none of which will be directly effected by the proposed development. There is a total of 17 no. NIAH (EPA No. 2 rating) 7no. of which are recorded Protected Structures and a further 2 no. recorded Protected Structures, located within 10 m of the proposed TDR. None of these will be directly effected by the proposed development.

Examination of the Archaeological Survey of Ireland files records that the majority of the sites recorded within the proposed wind farm site, have been excavated and/or are redundant. A number of SMR's (LF17:007, LF18:035, LF018-056, LF022-003, LF18-150001/2) are located outside the proposed wind farm site boundary. The road (LF018-080) in Derryadd Bog is no longer extant. In Derryadd Bog field inspection was prevented of the following SMR's; Peatland Structures (LF018-084012-, LF018-084013, LF018-084049-50). The proposed infrastructure is less than 50 m from the Burnt Spread LF018-084071 and Peatland Structure LF018-084042.

An archaeological feature was revealed in 2021 along the line of the proposed amenity access track in the northeast of Lough Bannow Bog.

The sub-surface archaeological potential of the proposed wind farm site is considered to be high taking into the consideration the Recorded Monuments, stray finds recorded throughout the

⁵ <https://www.archaeology.ie/publications-forms-legislation/record-of-monuments-and-places>.



bogs and the presence of Corlea Trackway - a National Monument, located 700 m to the south of the infrastructure associated with the proposed wind farm site.

A number of areas of potential archaeological sensitivity for sub-surface wetland archaeology were identified. These areas recorded peat depths of 2-4 m and are also in close proximity to SMR's;

- Temporary site compound in Derryaroge Bog;
- Proposed met mast in Derryaroge Bog;
- T04 hardstand;
- T05 hardstand;
- T07 hardstand;
- Substation and battery storage in Derryaroge Bog;
- Amenity access track that exits the bog in the south-west and north east of Derryaroge Bog;
- Amenity carpark in Derryaroge Bog;
- Borrow Pit no.1, Borrow Pit no.2
- Amenity access track along the north-west boundary of Derryadd bog located to the west of a cluster of SMR's excavated in 2000;
- T13 hardstand;
- Internal site access road along the west boundary of Lough Bannow Bog;
- Amenity carpark in Lough Bannow Bog;
- Amenity access track that in the south and north-east of Lough Bannow Bog;
- Entrances to Lough Bannow Bog in the north-west and in the south of Derryadd bog;
- Temporary construction compound in Lough Bannow Bog; and,
- Met mast in Lough Bannow Bog.

The infrastructure associated with the proposed development is located on barony boundaries and hitherto unrecorded monuments and artefacts may survive in-situ.

14.4 POTENTIAL EFFECTS

Following on from the identification of the baseline environment, the available data is utilised to identify and categorise potential impacts likely to affect the cultural heritage environment as a result of the proposed development. Impacts can be assessed based on the detailed information on the project, the nature of the area affected, and the range of resources potentially affected. Wind farms, in general, can potentially affect the cultural heritage landscape in a number of ways (Section 14.2.1).

14.4.1 Do-nothing Scenario

If the proposed development were not to proceed, then potential effects on cultural heritage assets would not apply with no need for mitigation. The area of the proposed development continues as a decommissioned bog thereby preserving in-situ potential archaeological sites and artefacts.

14.4.2 Construction Phase

The proposed wind farm site will involve the mechanical excavation of peat layers down to and through geologically deposited strata to enable ground engineering works. As identified in Section 14.3 there are a total of 333 no. recorded monuments located within 500 m of the



infrastructure associated with the proposed wind farm site (5 no. of which are located outside the proposed wind farm site boundary and 328 no. recorded monuments no longer extant). There is a total of 21 no. SMR's located within 10 m of the proposed TDR. None of these monuments will be directly affected by the proposed development. The proposed development will have a neutral, imperceptible direct effect on the 328 no. recorded monuments, that are no longer extant. The proposed development will have a neutral imperceptible direct effect on the 26 no. recorded monuments.

There are a total of 26 no. NIAH features, 12 no. of which are recorded protected structures, located within 2 km of the proposed wind farm site boundary, none of which will be directly affected by the proposed development. There is a total of 17 no. NIAH, 7 no. of which are recorded protected structures and a further 2 no. recorded Protected Structures, located within 10 m of the proposed TDR. None of these will be directly affected by the proposed development. The proposed development will have a neutral, not significant long-term direct effect on NIAH features and RPS.

Some areas of the bogs are overgrown (see Section 14.3.10), preventing a visual inspection as part of the assessment. Archaeological features and/or artefacts may survive in these overgrown areas. Levels of peat recorded in the bog range from 0.1m to at least 6.2m. It is possible that sub-surface wetland archaeological features and/or artefacts survive within the peat and/or at the level of the underlying natural subsoil.

Potential effects on sub-surface archaeology

The field walkover of the proposed wind farm site (where accessible) recorded no features and/or finds of archaeological significance on the surface of the peat or within the drains (where visible). It is possible however that hitherto unrecorded sub-surface archaeology survives below ground level, either within the peat or at the level of the underlying natural subsoil. Ground disturbance associated with the proposed wind farm site will have a likely direct effect (negative) on unrecorded sub-surface archaeology. Should new sites, features and/or artefacts be revealed during excavations, the proposed development will have a likely permanent very significant direct effect (negative) on unrecorded archaeology.

Turbines, Hardstanding, Construction Compounds and Met Masts

The following are located in areas where there is no peat surviving or depths of peat less than 0.5 m and therefore has an unlikely probability of potential wetland archaeology being revealed; Turbines T01, T02, T03, T06, T08, T09, T10, T11, T12, T17 and T21 and the construction compounds. Turbines T04, T05, T07, T13, T14, T15, T16, T18, T19, T20 and T22, met masts in Derryaroge and Lough Bannow are located in areas where peat is measured at depths of more than 0.5 m and will have a likely potential direct effect (negative) on unrecorded sub-surface wetland archaeology.

Borrow Pits

Some of the borrow pits are located in areas with peat less than 0.5 m and therefore have an unlikely probability of potential wetland archaeology being revealed. In the north half of the borrow pit (BP-01) and south half of borrow pit (BP-02) the peat depths are recorded at depths of more than 1 m and will have a likely potential direct effect (negative) unrecorded sub-surface wetland archaeology.



Internal Site Access Roads, Grid Connection, Amenity Access Track, Car Parks, Passing bays

Sections of the internal roads and associated drainage, amenity access tracks, car parks and passing bays cross the bog where there is no peat surviving and therefore has an unlikely probability of potential wetland archaeology being revealed. An archaeological feature was recorded along the proposed amenity access track in the northeast of Lough Bannow Bog. The proposed amenity access track will have a permanent very significant direct effect (negative) on the archaeological feature. In other areas the internal site access road with associated drainage, amenity access tracks, car parks and passing bays cross the bog with peat depths of up to 2–4 m and will have a likely potential direct effect (negative) unrecorded sub-surface wetland archaeology.

Substation & Battery Storage compound

The substation and battery storage compound are located in areas with peat deposits ranging in depth from 0-1.9 m and will have a likely potential direct effect (negative) on unrecorded sub-surface wetland archaeology.

Grid Connection

The proposed grid connection will be excavated by directional drilling under the N63 where there are significant peat depths and will have a likely potential direct effect (negative) on unrecorded sub-surface wetland archaeology.

Peat Deposition Areas

The peat deposition area in Derryaroge bog is located in an area with peat deposits ranging in depth from 0-1.9 m and will have a likely potential direct effect (negative) on unrecorded sub-surface wetland archaeology.

The temporary peat deposition area in Derryadd Bog is located in the townland of Cloonfiugh, with peat deposits ranging in depth from ca. 0.54-5 m and will have a likely potential direct effect (negative) on unrecorded sub-surface archaeology.

Turbine Delivery Route

The proposed turbine delivery route travels on existing national and regional roads. The proposed TDR will require minor ground disturbance adjacent to the historic town of Roscommon (RO39-43) and this will have a likely potential direct (negative) effect on sub-surface archaeology. The remainder of the proposed TDR will have a neutral effect of no significance on cultural heritage features. The increased traffic associated with the development will have a neutral effect on the structural integrity of all the RPS and NIAH along the proposed turbine delivery route, Refer to Chapter 15 (Traffic and Transport) of this EIAR.

14.4.3 Potential Effects (Indirect) – Construction Phase

Potential effects (indirect) of the proposed development are concerned with the visual effect on cultural heritage sites and monuments. The proposed development will involve the construction of 22 no. turbines, associated infrastructure and proposed temporary accommodation works along the TDR. Since these effects only occur once the proposed turbines are constructed, they are considered operational effects and are therefore discussed in Section 14.4.4 below. The



proposed development will have a neutral (indirect) effect on cultural heritage assets at construction phase.

14.4.4 Operation Phase

The proposed development will have a neutral long-term imperceptible (direct) effect on cultural heritage assets at the operation phase.

14.4.5 Operation Phase (Indirect Effects)

Potential effects (indirect) of the proposed development are concerned with the visual effect on cultural heritage assets. While the proposed development may not have a direct effect on a cultural heritage asset, it may alter the setting. The following is considered for purposes of assessing the potential effect on setting;

- the uniqueness of the monuments;
- the potential interrelationships of monuments;
- the inter-visibility of monuments;
- visual dominance; and,
- whether a setting is altered or unaltered can be used to assess the potential effect.

Examination of the photomontages from Chapter 13 (Landscape and Visual Impact Assessment) of this EIAR indicate that there will be a visual (indirect) effect on the setting of cultural heritage features within the wider cultural heritage environment.

The proposed wind farm site will be visible from the surrounding cultural heritage features and from the historic towns of Lanesborough, Keenagh and Killashee. The cultural heritage features include Ballynakill church and ecclesiastical enclosure (LF013-045001- 45013) and ringforts in the townland of Annaghmore (LF018-035), Derryoghil (LF018-037), Derraghan More (LF022-003, LF022-013), Rapareehill (LF018-001, LF018-015001), Cloonfore (LF017-007), Cloonfiugh (LF018-018) Derrygeel (LF018-055) and Cloontabeg (LF018-056).

Numerous RPS and NIAH structures recorded within 2 km of the proposed wind farm site have some screening surrounding therefore the proposed wind farm site will have a neutral long-term slight effect of no significance on setting.

Chapter 13, Section 13.6.4.5 (Landscape and Visual Impact Assessment) of this EIAR indicates there will be a potential (indirect) long-term substantial moderate effect on the Corlea Trackway Visitor centre (LVIA AH3, AH3a).

14.4.6 Decommissioning Phase

There will be no significant potential effects on cultural heritage assets during the short-term decommissioning phase of the proposed development. Any potential effects will already have been resolved through the mitigation measures during the construction phase. Any effect on setting in the wider landscape will have been reversed.



14.5 MITIGATION MEASURES

The current state policy as detailed in the Framework and Principles for the Protection of the Archaeological Heritage (1999), is that preservation *in situ* of archaeological material is the preferred option. Where this cannot be achieved then appropriate measures need to be adopted to ameliorate the impacts that the proposed development may have on features of archaeological, architectural and/or cultural heritage within the study area during both the construction and operational phases of the works. Following consultations with the National Monuments Service, DHLGH, it was recommended that a Post Consent Advance Stage Works be implemented.

14.5.1 Pre-Construction/Post Consent Advance Works Stage

Some parts of the bog are overgrown preventing a full assessment (Section 14.3.10). The following mitigation measures involve;

- Clearance of drains to allow for a full inspection of potential archaeology;
- Archaeological monitoring of tree felling;
- Archaeological resolution of archaeological feature identified in Lough Bannow Bog; and,
- Archaeological pre-development testing in areas where large excavations will be undertaken (turbine hardstands, construction compounds, substation, battery storage, entrances to the bogs and amenity carparks) with peat depths greater than 0.5 m, see Chapter 9 (Land, Soils and Geology) of this EIAR for details of peat depths.

These works will require monitoring by a suitably qualified archaeologist working under licence as issued by the minister (DHLGH) under section 26 of the National Monuments Acts (1994-2014). In the event of archaeological features, finds and/or deposits been encountered during the course of the monitoring and/or testing, the relevant authorities should be notified immediately. *Preservation by record* (through archaeological excavation) will only occur if it is established that *preservation in situ* cannot be achieved, and such excavations are agreed with National Monuments Service.

14.5.2 Construction phase

The following mitigation measures will be implemented during the construction phase:

- All ground disturbance associated with the construction of the proposed development will be monitored by a suitably qualified archaeologist working under licence as issued by the minister (DoHDLGH) under section 26 of the National Monuments Acts (1994-2014).
- In the event of archaeological features, finds and/or deposits been encountered during the course of the monitoring and/or testing, the relevant authorities should be notified immediately. *Preservation by record* (through archaeological excavation) will only occur if it is established that *preservation in situ* cannot be achieved and such excavations are agreed with National Monuments Service.



14.6 RESIDUAL EFFECTS

14.6.1 Construction Phase Residual Effects

There will be no significant residual effects during construction phase on the archaeological, architectural and cultural heritage resource within the proposed wind farm site after mitigation measures have taken place. In the event of new archaeology features being revealed, the proposed development will have a long term positive significant direct effect.

14.6.2 Operational Phase Residual Effects

There will be no significant residual effects during operation on the archaeological, architectural and cultural heritage resource within the proposed wind farm site after mitigation measures have taken place. In the event of new archaeology features being revealed, the proposed new amenity development will increase the awareness of the cultural heritage of the area thus having a long term positive significant effect.

14.6.3 Decommissioning Phase Effects

There will be no significant residual effects on the archaeological, architectural and cultural heritage environment during the short-term decommissioning of the proposed development. Any potential direct effects will already have been resolved through mitigation measures during the construction phase. Any effects on setting in the wider landscape will have been reversed.

14.7 CUMULATIVE EFFECTS

Cumulative effects encompass the combined effects of multiple developments or activities on a range of receptors. In this case, the receptors are the cultural heritage features in the immediate vicinity of the proposed development.

Sliabh Bawn Wind Farm and the Lough Ree Power Station are visible to the north-west of the proposed development. When the location of the proposed development is taken into consideration the overall long-term negative effect on the archaeological landscape will increase moderately.

In terms of cumulative effects, all proposed developments are assessed from a cultural heritage perspective through the EIAR and AIA process with potential negative effects been dealt with through the use of effective mitigation measures and planning conditions issued through the Planning Authorities.

It must be noted that this increase in cumulative effect does not result in any direct effects to archaeology or cultural heritage.



14.8 SUMMARY

This chapter comprises an assessment of the potential effects of the proposed development on the Cultural Heritage resource. The NMS (DHLGH) require the implementation of mitigation measures at a Pre-Construction/Post-Consent Advance Works Stage (14.5.1) and Construction Stage (14.5.2). This allows adequate time to further assess

- areas overgrown and inaccessible, preventing a visual assessment,
- areas with significant depths of peat
- the archaeological resolution of archaeological feature identified in the Lough Bannow Bog.

This assessment has identified no likely significant direct effects (negative) from the proposed development on the receiving environment (where accessible), given the layout and design of the proposed development and the mitigation measures recommended.

Direct Effects on Recorded Monuments

There are a total of 333 no. recorded monuments within 500 m of the proposed wind farm site (5 of which are located outside the proposed wind farm site boundary). As these monuments are no longer extant, the proposed development will have a neutral imperceptible (direct) effect of no significance. The proposed development will have a neutral imperceptible (direct) effect on the 5 no. recorded monuments located within 500 m of the proposed wind farm site and a neutral not significance (direct) effect on the 21 no. recorded monuments located within 10 m of the proposed TDR.

Direct Effects on NIAH and RPS

There are no recorded NIAH within the proposed wind farm site boundary. There are a total 26 no. features registered in the NIAH of which 12 are recorded protected structures located within 2 km of the proposed wind farm site, 17 features registered in the NIAH of which 7 are recorded protected structures and 2 recorded Protected structures within 10 m of the proposed TDR, and none of these will be directed effected by the proposed development. The proposed development will have a likely neutral not significant effect (direct) on the NIAH and Protected Structures.

Direct Effects on Potential Sub-Surface Archaeology

Parts of the proposed development (Turbines and sections of the infrastructure) are located in areas with peat depths up to 6.2 m, given the number of recorded monuments, recorded stray finds, the National Monument – Corlea Trackway 700 m to the south, there is a likely potential of subsurface wetland archaeology surviving in-situ. The excavation of peat during all elements of the proposed development has the potential of sub-surface archaeology being revealed. Proposed minor changes to the road layout of the proposed Turbine Delivery Route are located immediately adjacent to Roscommon Historic Town (RO39-43). The National Monuments Service, DHLGH, recommended that all ground disturbance associated with the construction of the proposed development will be monitored by a suitably qualified archaeologist working under licence as issued by the minister (DoHGLH) under section 26 of the National Monuments Acts (1994-2014). Should new sites, features and/or artefacts be revealed during excavations, the proposed development will have a likely permanent very significant direct effect (negative) on unrecorded archaeology. The sites/features, if detected, during monitoring will be preserved by record (archaeologically excavated) or preserved in-situ (avoidance) and therefore a full



record made of same. In this regard, the potential effect after mitigation measures is likely to be long term positive significant direct effect.

This assessment has identified no likely significant **direct** effects (negative) from the proposed development on the receiving environment (where accessible), given the layout and design of the proposed development and the mitigation measures recommended.

Indirect Effects on Cultural Heritage

Numerous Recorded Monuments, RPS and NIAH structures recorded within 2 km of the proposed wind farm site have some screening surrounding therefore the proposed wind farm site will have a neutral long-term imperceptible effect of no significance on setting. According to Chapter 13 (Landscape and Visual Impact Assessment) of this EIAR, during the operational phase, there will be a potential (indirect) substantial moderate significant negative effect on the Corlea Trackway Visitor centre.

In terms of cumulative effects, since all projects have been assessed from a cultural heritage perspective through the EIAR process, all potential negative effects are deemed to have been dealt with through the use of effective mitigation measures and planning conditions issued through the Planning Authorities. If the mitigation measures prescribed in this EIAR are implemented then cumulative direct effects to unknown sub-surface archaeology will not occur, regardless of the other projects within 20 km of the proposed development. According to Chapter 13 (Landscape and Visual Impact Assessment) of this EIAR the cumulative indirect effects of the Sliabh Bawn Wind Farm and the proposed development is deemed to be low.

In the event of new archaeology features being revealed, the proposed development will have a long term positive significant direct effect. The proposed new amenity development will increase the awareness of the cultural heritage of the area thus having a long term positive significant effect.

