

Sure Partners Limited

ARKLOW BANK WIND PARK
PHASE 2
**ONSHORE GRID
INFRASTRUCTURE**

**ENVIRONMENTAL IMPACT
ASSESSMENT REPORT**

VOLUME II

Chapter 15 Archaeology, Architectural &
Cultural Heritage

ARUP

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Renewables

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15 Archaeological, Architectural and Cultural Heritage

15.1 Introduction

This chapter of the EIAR consists of an assessment of the likely significant effects of the proposed Arklow Bank Wind Park Phase 2 Onshore Grid Infrastructure, hereafter referred to as the “proposed development”, under the heading of archaeological, architectural and cultural heritage (**Figure 15.1a and Figure 15.1b**).

This study determines, as far as reasonably possible from existing records, the nature of the archaeological, architectural, and cultural heritage resource in and within the vicinity of the proposed development using appropriate methods of study. Desk-based assessment is defined as a programme of study of the historic environment within a specified area or site that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage assets (CifA 2014a, 2014b, 2014c). This leads to the following:

- determining the presence of known archaeological and architectural assets that may be affected by the proposed development;
- assessment of the likelihood of finding previously unrecorded archaeological and architectural remains during the construction programme;
- determining the effect upon the setting of known cultural heritage sites in the surrounding area; and
- suggested mitigation measures based upon the results of the above research.

15.1.1 Legislation and Guidelines

The following legislation, standards and guidelines were consulted as part of the assessment:

- National Monuments Acts 1930 to 2014;
- The Planning and Development Act, 2000, (as amended);
- Heritage Act, 1995, (as amended);
- Draft Advice Notes on Current Practice (in the preparation of Environmental Impact Statements), 2015, Environmental Protection Agency (EPA);
- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Dublin. Government Publications Office, 2017, EPA;
- Frameworks and Principles for the Protection of the Archaeological Heritage, 1999, (formerly) Department of Arts, Heritage, Gaeltacht and Islands; and

- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 2000 and the Local Government (Planning and Development) Act 2000.

15.1.2 Consultation

During scoping and research for the assessment and EIAR, a number of statutory and voluntary bodies were consulted to gain further insight into the cultural background of the receiving environment and study area, as follows:

- Department of Housing, Local Government and Heritage (DoHLGH) – the Heritage Service and Policy Unit, National Monuments and Historic Properties Section: Record of Monuments and Places (RMPs); Sites and Monuments Record (SMR); Monuments in State Care Database; Preservation Orders; Register of Historic Monuments;
- National Museum of Ireland, Irish Antiquities Division: topographical files of Ireland;
- National Inventory of Architectural Heritage (NIAH): County Wicklow; and
- Wicklow County Council: Planning Section.

15.1.3 Definitions

In order to assess, distil and present the findings of this study, the following definitions apply:

‘Cultural Heritage’ where used generically, is an over-arching term applied to describe any combination of archaeological, architectural, and cultural heritage features, where:

- the term ‘archaeological heritage’ is applied to objects, monuments, buildings or landscapes of an (assumed) age typically older than AD 1700 (and recorded as archaeological sites within the Record of Monuments and Places);
- the term ‘architectural heritage’ is applied to structures, buildings, their contents and settings of an (assumed) age typically younger than AD 1700; and
- the term ‘cultural heritage’, where used specifically, is applied to other (often less tangible) aspects of the landscape such as historical events, folklore memories and cultural associations.

15.1.4 Rating and Significance of Effects

The description of effects is as defined by the Draft EPA 2017 Guidelines, being:

- 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 noticeable consequences.

- **Slight Effects:** An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
- **Moderate Effects:** An effect that alters the character of the environment in a manner that is consistent with existing and emerging 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 the majority of a sensitive aspect of the environment.
- **Profound Effects:** An effect which obliterates sensitive characteristics.

15.2 Methodology

Research for this assessment was undertaken in two phases. The first phase comprised a paper survey of all available archaeological, architectural, historical and cartographic sources. The second phase involved a field inspection of the proposed development.

15.2.1 Paper Survey

The paper survey included a review of:

- Record of Monuments and Places for County Wicklow;
- Sites and Monuments Record for County Wicklow;
- National Monuments in State Care Database;
- Preservation Orders List;
- Register of Historic Monuments;
- Topographical files of the National Museum of Ireland;
- Cartographic and written sources relating to the study area;
- Wicklow County Development Plan, 2016-2022;
- Arklow and Environs Local Area Plan, 2018-2024;
- Aerial photographs and satellite coverage;
- Excavations Bulletin (1970–2020);
- NIAH: Architectural & Garden Survey; and
- Place name analysis.

Record of Monuments and Places (RMP) is a list of archaeological sites known to the National Monuments Section, which are afforded legal protection under Section 12 of the 1994 National Monuments Act and are published as a record. All recorded monuments are referred to as Archaeological Heritage sites (AH) within this assessment.

Sites and Monuments Record (SMR) holds documentary evidence and field inspections of all known archaeological sites and monuments. Some information is also held about archaeological sites and monuments whose precise location is not known e.g. only a site type and townland are recorded. These are known to the National Monuments Section as ‘un-located sites’ and cannot be afforded legal protection due to lack of locational information. As a result, these are omitted from the Record of Monuments and Places. SMR sites are also listed on a website maintained by the DoHGLH – www.archaeology.ie. All sites included in the SMR are referred to as Archaeological Heritage sites (AH) within this assessment.

National Monuments in State Care Database is a list of all the National Monuments in State guardianship or ownership. Each is assigned a National Monument number whether in guardianship or ownership and has a brief description of the remains of each Monument. There are no National Monuments located within the study area of the proposed development area.

The Minister for the DoHGLH may acquire national monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any national monument (other than dwellings). The owners of national monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority agrees. Once the site is in ownership or guardianship of the state, it may not be interfered with, without the written consent of the Minister.

Preservation Orders List contains information on Preservation Orders and/or Temporary Preservation Orders, which have been assigned to a site or sites. Sites deemed to be in danger of injury or destruction can be allocated Preservation Orders under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion, of the Minister. There are no sites with Preservation Orders located within the study area of the proposed development area.

The Register of Historic Monuments was established under Section 5 of the 1987 National Monuments Act, which requires the Minister to establish and maintain such a record. Historic monuments and archaeological areas present on the register are afforded statutory protection under the 1987 Act. The register also includes sites under Preservation Orders and Temporary Preservation Orders. All registered monuments are included in the Record of Monuments and Places.

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

Cartographic sources are important in tracing land use development within the proposed development area as well as providing important topographical information on areas of archaeological potential and the development of buildings.

Cartographic analysis of the following maps has been undertaken to identify any topographical anomalies or structures that no longer remain within the landscape:

- William Petty, Down Survey, Barony of Arklow, c. 1655;
- Jacob Nevill, Map of Wicklow, 1760; and
- Ordnance Survey maps of County Wicklow, 1838, 1887, and 1907-9.

Documentary sources were consulted to gain background information on the archaeological, architectural, and cultural heritage landscape of the proposed development area.

Development Plans contain a catalogue of all the protected structures and archaeological sites within the county. The Wicklow County Development Plan, 2016-2022 and the Arklow and Environs Local Area Plan, 2018-2024 were consulted to obtain information on cultural heritage sites in and within the immediate vicinity of the proposed development area. All protected structures are listed as Built Heritage sites (BH) within this assessment.

Aerial photographic coverage is an important source of information regarding the precise location of sites and their extent. It also provides initial information on the terrain and its likely potential for archaeology. A number of sources were consulted including aerial photographs held by the Ordnance Survey, Google Earth, and Bing Maps.

Excavations Bulletin is a summary publication that has been produced every year since 1970. The hard copy of the publication summarises every archaeological excavation that has taken place in Ireland during that year up until 2010 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. Since 2011 the summary information has been available as an online resource and covers the years from 1970 to 2020 (www.excavations.ie).

The NIAH is a state initiative established under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 tasked with making a nationwide record of significant local, regional, national and international structures, which in turn provides local authorities with a guide as to what structures to list within the Record of Protected Structures. The NIAH have also carried out a nationwide desk-based survey of historic gardens, including demesnes that surround large houses. All NIAH structures are listed as Built Heritage sites (BH) and designed landscapes included in the NIAH gardens survey are listed as Demesne Landscapes (DL) within this assessment.

Place Names are an important part in understanding both the archaeology, history, and cultural heritage of an area. Place names can be used for generations and in some cases have been found to have their root deep in the historical past. The main references used for the place name analysis is *Irish Local Names Explained* by P.W Joyce (1870) and the Place Names Database of Ireland.

15.2.2 Field Inspection

Field inspection is necessary to determine the extent and nature of archaeological, architectural and historical remains, and can also lead to the identification of previously unrecorded or suspected sites and portable finds through topographical observation and local information.

The archaeological and architectural field inspection entailed -

- walking the proposed development and its immediate environs;
- noting and recording the terrain type and land usage;
- noting and recording the presence of features of archaeological, architectural, or historical significance;
- verifying the extent and condition of any recorded sites or structures (RMPs / Record of Protected Structures (RPS) / NIAH); and
- visually investigating any suspect landscape anomalies to determine the possibility of their being anthropogenic in origin and of archaeological, architectural, or cultural heritage significance.

15.3 Receiving Environment

15.3.1 Historical Background

The proposed development area is located within a rural landscape primarily to the east of the M11 Bypass. The portion of the proposed development to the west of the M11 is situated within the Avoca River Business Park to the immediate north of the Avoca River. A small section of the proposed development area is also located on the south bank of the river opposite the business park.

The study area of the proposed development is defined as an area measuring 200m from planning (red line) boundary of the proposed development extents.

All AH, BH, DL and Areas of Archaeological Potential (AAPs) within the study area are shown in **Figure 15.1a/b**. **Appendices 15.1** and **15.2** describe the AH and BH sites in more detail.

15.3.1.1 Prehistoric Period

Mesolithic Period (6000-4000 BC)

Although very recent discoveries may push back the date of human activity by a number of millennia (Dowd and Carden 2016), the Mesolithic period is the earliest time for which there is clear evidence of prehistoric activity in Ireland. During this period people hunted, foraged, and gathered food and appear to have had a mobile lifestyle. The most common evidence indicative of Mesolithic activity at a site comprises scatters of worked flint material; a by-product from the production of flint implements (Stout and Stout 1997).

There is some evidence within the archaeological record that indicates that Wicklow was inhabited from the late Mesolithic period (5500-4000 BC) with flint scatters recorded from Ardairy, near Brittas Bay and on Corporation Lands to the south of Wicklow town (Grogan and Kilfeather 1997, 1). It is likely that the proximity of the coast and the estuary of the River Avoca would have made the landscape containing the proposed development area attractive for settlement during this period and a prehistoric



Figure 15.1.a: Eastern section of Proposed Development and Surrounding Archaeological and Built Heritage Features

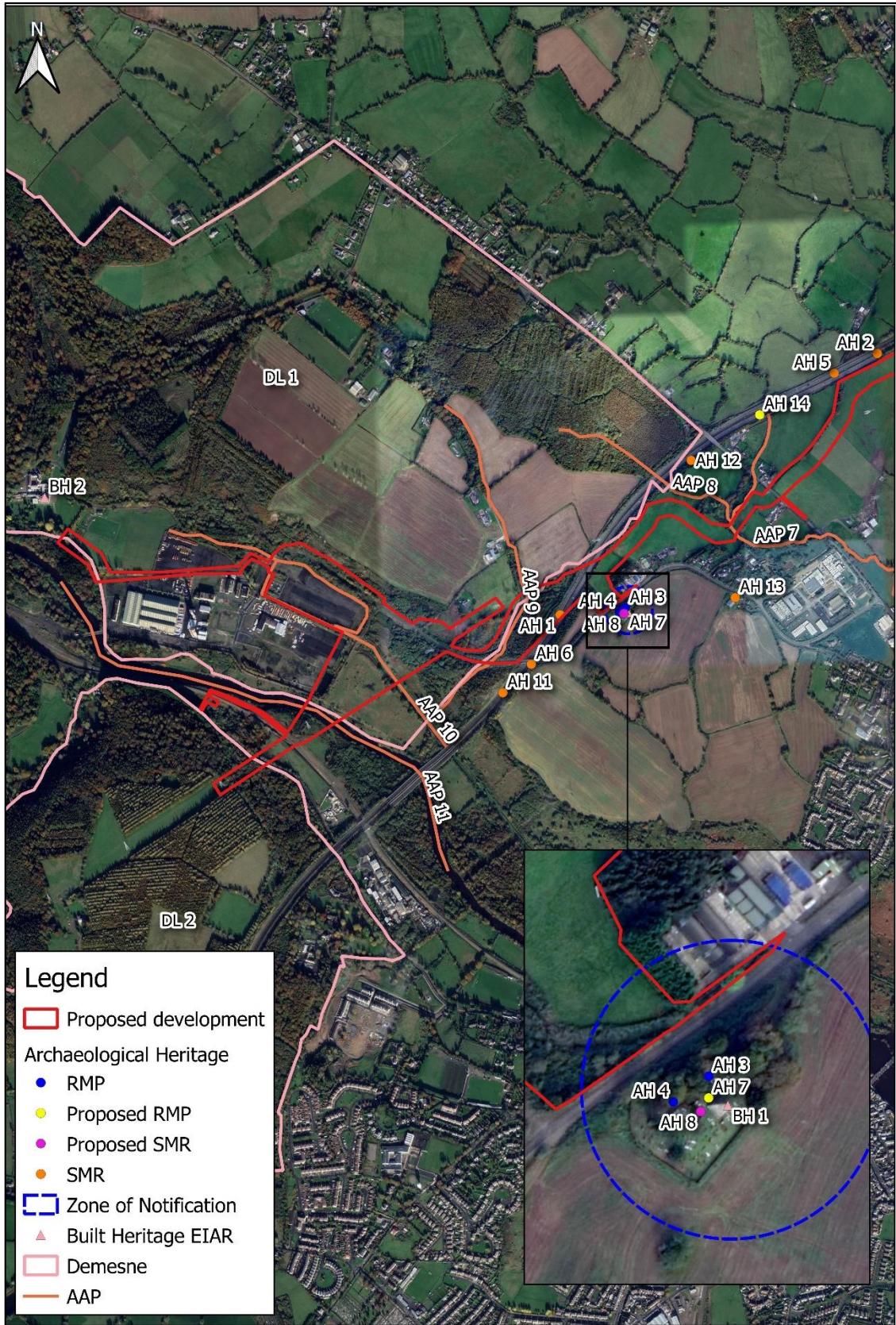


Figure 15.1b: Western section of Proposed Development and Surrounding Archaeological and Built Heritage Features

Lithic scatter (RMP WI041-010) has been recovered in a field beside the coast in Seabank, c. 345m from the proposed development.

Neolithic Period (4000-2500 BC)

During the Neolithic period communities became less mobile and their economy became based on the rearing of stock and cereal cultivation. This transition was accompanied by major social change, and agriculture demanded an alteration of the physical landscape; forests were rapidly cleared, and field boundaries constructed. There was a greater concern for territory, which saw the construction of large communal ritual monuments called megalithic tombs, which are characteristic of the period. These monuments are more common in the northern part of County Wicklow (Wicklow Mountains). An excavation in advance of the M11 Arklow Bypass road scheme, c. 25m from the proposed development, uncovered shallow pits containing flint artefacts and a large amount of Neolithic pottery sherds (AH 2; RMP WI040-055; Licence 97E0083).

Bronze Age (2500-800 BC)

The Bronze Age was marked by the widespread use of metal for the first time in Ireland. As with the transition from Mesolithic to Neolithic the transition into the early Bronze Age was accompanied by changes in society. Megalithic tombs were no longer constructed, and the burial of the individual became typical. Cremated or inhumed bodies were often placed in a cist, which is a stone-lined grave, usually built of slabs set upright to form a box-like construction and capped by a large slab or several smaller lintels (Buckley and Sweetman 1991, 63). A ring-ditch, which may represent a Bronze Age burial monument, was identified through aerial photography, c. 325m from the proposed development in Killiniskyduff (RMP WI040-047). Two cremation pits with human bone and Bronze Age pottery were excavated at Junction 20 of the M11, c. 255m from the proposed development area (RMP WI040-057/58).

Evidence for settlement during the Bronze Age is relatively sparse. However, a site thought to reveal a glimpse of domestic life at this time is the *fulacht fiadh* or burnt mound. A common site, they are normally interpreted as temporary cooking sites, possibly used on a seasonal basis. These sites survive as low mounds of charcoal-enriched soil mixed with an abundance of heat-shattered stones. They are usually horseshoe shaped and located in low-lying areas near a water source and are often found in clusters. Even when levelled by an activity such as ploughing, they are identifiable as burnt spreads in the landscape. Radiocarbon dates for this monument type have generally placed them in the Bronze Age (Brindley and Lanting 1990, 55). Excavations in advance of the construction of the M11 Arklow Bypass Scheme revealed a number of burnt mounds, spreads, and pits within the proposed development and to its northwest (AH 1, 5, 9, 12, 14; RMP WI040-049/51-54). Excavations at this time also revealed a Bronze Age habitation site (AH 11; RMP WI040-048) c. 95m from the proposed development area, consisting of an oval structure and a number of post-holes. A number of pottery sherds from Beaker, Cordoned Urn, and Vast vessels were also recovered.

Iron Age (800 BC-AD 500)

Compared to the rest of Irish prehistory, there is very little evidence in Ireland, as a whole, representing the Iron Age. As in Europe, there are two phases of the Iron Age in Ireland; the Hallstatt and the La Tène. The Hallstatt period generally dates from 700BC onwards and spread rapidly from Austria, across Europe, and then into Ireland. The later Iron Age or La Tène also originated in Europe during the middle of the 5th century BC. For several centuries the La Tène Celts were the dominant people in Europe, until they were finally overcome by the Roman Empire. There are no recorded archaeological sites dating to this period within or surrounding the proposed development area.

Early Medieval Period (AD 500–1100)

The early medieval period is depicted in the surviving sources as entirely rural characterised by the basic territorial unit known as *túath*. Byrne (1973) estimates that there were likely to have been 150 kings in Ireland at any given time during this period, each ruling over his own *túath*.

The early medieval landscape in Ireland is characterised by dispersed enclosed rural farmsteads, or raths, which likely housed an extended family. This site type is considered to be the most common indicator of settlement during the early medieval period and truncated examples are regularly identified as crop marks in aerial photography or through archaeological investigation. Research undertaken as part of the ‘Early Medieval Archaeology Project’ suggests a conservative estimate for the number of ringforts, raths, cashels, cahers and ‘enclosures’ in the country to be at least 60,000 (O’Sullivan *et al.* 2014, 49). The sites are typically enclosed by an earthen bank and exterior ditch, ranging from 25m to 50m in diameter. These are often found in association with souterrain which are stone lined underground chambers that varying greatly in size and scale. There is a group of four circular enclosures and one rectangular enclosure (AH 10; RMP WI041-006001-5), c. 80m from the proposed development in the townland of Johnstown South.

The later part of this period is also characterised by Viking activity, especially along the eastern coast of Ireland. By AD 830, the Vikings began to establish coastal bases. Arklow is thought to have been one of these and may derive its name from *Arnkell*, a Norse name meaning a low-lying meadow near a river. The Vikings would have conducted coastal raids from the camp, as well as travelling inland via the Avoca River. Whilst no archaeological evidence has been discovered to date that confirms the settlement of this population, a burial was discovered during the 19th century between the Three Mile Water and Arklow town, which may be of Scandinavian origin. The burial was accompanied by two bronze oval brooches and a silver wire chain, with attached silver needle case (Coffey 1902, 71-3). The exact location of the burial is unknown, but the artefacts have been dated to the 10th or early 11th centuries and are Scandinavian in origin.

15.3.1.2 Medieval Period (AD 1100–1600)

The first of the Irish Anglo-Norman landings and invasions took place in County Wexford, at the invitation of the former king of Leinster, Dermot MacMurrough Kavanagh. The Anglo-Normans, joined by 500 *Uí Chennselaig* men, took the Viking town of Wexford. Through a policy of military force and integration, the Anglo-Normans colonised much of the country. Marriages between Norman leaders and the women of Ireland's great families aided this integration. The Norman feudal culture, techniques, language, and legal systems were to have a profound effect in the county after 230 years of Norse influence.

Arklow and Wicklow became important medieval towns in the Anglo-Norman period. Arklow town retains its medieval linear pattern, with long, narrow property plots extending north and south from Main St. In 1185 the manor of Arklow was granted to Theobald Fitzwalter by King John. Land was also granted for the Cistercians and it is possible that a religious house was established at RMP WI040-029004, c. 1.6km from the proposed development area. In 1927, a number of burials were discovered at this location, which is now covered by houses.

A large amount of the land surrounding Arklow was parcelled up and given to the supporters of the English king. In 1264, Thomas, son of Theobald, granted land to the Dominicans and they established a religious house on the southern side of Arklow town (RMP WI040-029001), c. 1.8km from the proposed development area. Portions of the church and claustral buildings survived into the mid-18th century. The site is now a park within the walled graveyard (RMP WI040-029009) with 18th and 19th century headstones arranged around the perimeter. The graveyard at the site of the medieval church of St Mary (RMP WI040-029007) has also been transformed into a park, again with 18th and 19th century headstones lining the perimeter, located c. 1.6km from the proposed development area.

By the 14th century, the Fitzwalters were beginning to adopt the name of Butler, which derived from the position of chief Butler to the Monarch. A ceremonial part of the privilege was to offer the newly crowned king a goblet of wine. However, the real benefit was that the Fitzwalters were entitled to a large portion of all wine imported into Ireland as a form of tax. They kept this privilege up until the 19th century, when they sold it back to the State for a large sum. Although they established the 13th century castle at Arklow, it represented one of many estates and it was during the 14th century they decided to move the centre of operations to Kilkenny, with Kilkenny Castle becoming their main home. Caretakers were appointed to look after affairs in Arklow, including the castle, which may have replaced an earlier defensive structure. The remains of the castle (RMP WI040-029002), which consists of the walls of a tower, c. 8m high and portions of curtain wall, are situated c. 1.5km from the proposed development area.

After the 14th century, the town suffered from a number of raids from the O'Tooles and O'Byrnes. The town appears to have suffered from considerable depopulation but survived as an entity until the end of the 16th century. At this time, the Butlers (now Earls of Ormonde) renewed their interest in the town. It is clear from a document dating to 1571 that the town had become dilapidated and the defences were in poor condition.

15.3.1.3 Post-Medieval Period (AD 1600–1900)

During the Civil War against King Charles I, the leader of the Royalists in Ireland was James Butler, Earl of Ormonde; however, he was not successful against Cromwell, whom after capturing Drogheda, arrived in Arklow on the 29th September 1649, on his way to Wexford. His army camped across the Avoca River at Sheepwalk and prepared to attack. A message was sent calling on the garrison to surrender. If they agreed, everyone could go free, if they resisted everyone would be killed. The town surrendered to Cromwell and he held court within the castle, which he all but demolished on his departure.

The next major event was the Battle of Arklow on June 9th, 1798. It is considered to be one of the most important events in the whole campaign for independence that took place at the end of the 18th century. While exact figures are not known it is generally agreed that there were about 3,000 garrison troops and between 10,000 and 12,000 fighting insurgents. The battle lasted for approximately four hours and was fought on two main fronts. The first was around Coolgreany Road and Upper Main Street; the second was the Old Chapel Ground/Fair Green/Back Street/Lower Main Street area. The main prize was the bridge, which had been built some forty years earlier and controlled access to Dublin. The garrison, though very much smaller than the insurgent force, were well trained, well-armed, and had the use of artillery and barricade cover. Although victorious, their ammunition had run so low by late evening that had the rebels known, another charge may have changed the result of the battle.

The 18th century witnessed a more pacified Ireland and the political climate settled; this saw a dramatic rise in the establishment of large residential houses around the country. This was largely due to the fact that after the turbulence of the preceding centuries, the success of the Protestant cause and effective removal of any political opposition, the country was at peace. The large country house was only a small part of the overall estate of a large landowner and provided a base to manage often large areas of land that could be dispersed nationally. During the latter part of the 18th century, the establishment of a parkland context (or demesnes) for large houses was the fashion. Although the creation of a parkland landscape involved working with nature, rather than against it, considerable construction effort went into their creation. Major topographical features like rivers and mountains were desirable features for inclusion into, and as a setting, for the large house and parkland.

The current Shelton Abbey (BH 2; RPS 40-05) was built in 1770 styled after a romantic abbey c. 125m from the proposed development replacing an earlier country house. The mansion was remodelled in a gothic style by the architect Richard Morrison and his son William Vitruvius Morrison in 1819. Shelton Abbey was the ancestral seat of the Earl of Wicklow from the creation of the title in 1793 until financial troubles caused the 8th Earl to sell the house in 1951 to the Irish State. The house has since been converted into a prison. The proposed development is partially located within the southeast of the extensive demesne of Shelton Abbey (DL 1; NIAH Garden 4251), the boundary of which is still visible despite the development of the Avoca River Business Park.

The 1st Viscount of Wicklow, Ralph Howard, commissioned the construction of a large pyramidal mausoleum (BH 1; RPS 40-07) in 1785, c. 40m from the proposed development within the graveyard of Kilbride Church (AH 3/4; RMP WI040-021001/2). The sarcophagus of the mausoleum bears the inscription;

“Within the walls of the adjoining Church lie interr'd the Remains of M. Dorothea Howard otherwise Hassels Relict of John Howard Esq. Who Departed this Life at Shelton in December 1684 to Whose Memory and that of their Descendants and as a place of Burial for his Family Ralph Viscount Wicklow has caused this Monument to be Erected in the year of our Lord 1785”

Vernacular architecture is defined in James Steven Curl's Encyclopedia of Architectural Terms as 'a term used to describe the local regional traditional building forms and types using indigenous materials, and without grand architectural pretensions', i.e. the homes and workplaces of the ordinary people built by local people using local materials. This is in contrast to formal architecture, such as the grand estate houses of the gentry, churches, and public buildings, which were often designed by architects or engineers. The majority of vernacular buildings are domestic dwellings. Examples of other structures that may fall into this category include shops, outbuildings, mills, lime kilns, farmsteads, forges, gates, and gate piers. The smithy depicted to the immediate north of the proposed development on the 1907-9 OS map is an example of vernacular architecture.

There are a substantial number of quarries/ extraction pits depicted on the 1838 and 1887 OS maps within the receiving environment of the proposed development, five of which are situated within the proposed development. The 1838 OS map depicts two quarries/ extraction pits to the west of Kilbride Church (AH 4; RMP WI040-021001) within the proposed development, these are not visible on the 1887 OS map. There are a further two quarries/ extraction pits depicted in the townland of Killiniskyduff on the 1887 OS map. The last quarry within the proposed development is in Johnstown North on both the 1838 and 1887 OS maps.

15.3.2 Wicklow County Development Plan, 2016-2022

15.3.2.1 Record of Monuments and Places

The Wicklow County Development Plan, 2016-2022 recognises the statutory protection afforded to all RMP sites and National Monuments. The plan states that;

“Our archaeological heritage includes structures, constructions, groups of buildings, developed sites, underwater sites, moveable objects and monuments of other kinds, as well as their context, whether situated on land or under water.... Wicklow County Council recognises the importance of preserving, protecting and fostering a greater public appreciation of the County's archaeological heritage” (WCC 2016).

To this end, the Development Plan outlines a number of specific objectives which are outlined in full in **Appendix 15.3 in Volume 3**. A Local Area Plan has also been prepared for Arklow, (Arklow and Environs Local Area Plan, 2018 – 2024) its policies and objectives concerning heritage are also outlined in **Appendix 15.3**.

There are 14 individual archaeological sites and one group of five sites (AH 10) within 200m of the proposed development. Of these sites, seven are classified as RMPs; eight are classified as SMRs; three are proposed for inclusion on the RMP at the time of its next revision and one is an RMP that is proposed to be redesignated as an SMR. A burnt spread (AH 1; RMP WI040-051) was excavated within the proposed development in advance of the M11 Bypass and the zone of notification (ZON) for a church, graveyard, mausoleum, and redundant record (AH 3/4/7/8; RMP WI040-021001-4) partially extend into the proposed development.

The mausoleum (AH 7; RMP WI040-021004) is also included on the Record of Protected Structures and the NIAH Building Survey (BH 1; RPS 40-07, NIAH 16404006). None of the archaeological sites are under preservation orders or listed as a National Monument.

Table 15.1: Archaeological Heritage (AH) sites, located within the receiving environment

AH No.	RMP No.	Classification	Dist. from Proposed Development	Designation
AH 1	WI040-051	Burnt spread	0m	SMR
AH 2	WI040-055	Excavation - miscellaneous	c. 25m	SMR
AH 3	WI040-021002	Graveyard	c. 30m	RMP
AH 4	WI040-021001	Church	c. 30m	RMP
AH 5	WI040-054	Burnt pit	c. 30m	SMR
AH 6	WI040-050	Furnace	c. 35m	SMR
AH 7	WI040-021004	Mausoleum	c. 40m	Proposed RMP, RPS, NIAH
AH 8	WI040-021003	Redundant record	c. 40m	Proposed SMR
AH 9	WI040-049	Burnt mound	c. 60m	Proposed RMP
AH 10	WI041-006001-5	Enclosure (x5)	c. 80m	RMP (ZON)
AH 11	WI040-048	Habitation site	c. 95m	SMR
AH 12	WI040-052	Burnt mound	c. 140m	SMR
AH 13	WI040-044	Font	c. 180m	SMR
AH 14	WI040-053	Burnt mound	c. 185m	Proposed RMP
AH 15	WI040-058	Cremation pit	c. 185m	SMR

15.3.2.2 Record of Protected Structures (RPS)

The Wicklow County Development Plan, 2016-22 recognises the value of the built heritage to the county and is committed to the protection and enhancement of this heritage by providing measures for the protection of architectural heritage. These include the establishment of a RPS and the designation of Architectural Conservation Areas (ACAs). Refer to **Appendix 15.4** in **Volume 3** of this EIAR.

There are two protected structures within the environs of the proposed development, both structures are also listed on the NIAH Building Survey. The closest protected structure consists of a mausoleum (BH 1; RPS 40-07) in the townland of Kilbride. The structure is scheduled for inclusion on the RMP at the time of its next revision.

The detail relating to each BH site is included in **Appendix 15.2** in **Volume 3** of this EIAR and marked on **Figure 15.1a/b**.

Table 15.2: Protected Structures located within the receiving environment

BH No.	RPS No.	Name	Dist. from Proposed Development	Designation
BH 1	40-07	Mausoleum	c. 40m	RPS, Proposed RMP, NIAH
BH 2	40-05	Shelton Abbey	c. 125m	RPS, NIAH

15.3.2.3 Architectural Conservation Areas (ACAs)

An Architectural Conservation Area is defined as ‘A place, area, group of structures or townscape, taking account of building lines and heights, that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or that contributes to the appreciation of a protected structure, and whose character it is an objective of a development plan to preserve.’ (Architectural Heritage Protection Guidelines 2011, 40). Chapter II of Part IV of the Planning and Development Act 2000, as amended, states that that all development plans must now include objectives for preserving the character of ACAs. ACAs are subject to statutory protection and are a key architectural heritage constraint.

There are 18 ACAs designated within the Wicklow County Development Plan, 2016-2022, none of which are situated within the proposed development planning (red line) boundary or its receiving environment. The closest relates to the settlement of Rathdrum, over 13km to the northwest.

15.3.3 National Inventory of Architectural Heritage

15.3.3.1 Building Survey

The National Inventory of Architectural Heritage survey of Wicklow was published in 2004.

A review of the architectural survey was undertaken as part of this assessment and included buildings within a 200m radius of the proposed development. There are two structures listed on the NIAH building survey, the nearest consists of a mausoleum (BH 1; NIAH 16404006) in the townland of Kilbride. Inclusion in the survey does not result in statutory protection, unless the structure is also included on the Record of Protected Structures for Wicklow, as both structures are. The mausoleum (BH 1; NIAH 16404006) is also scheduled for inclusion on the RMP at the time of its next revision.

The detail relating to each BH site is included in **Appendix 15.2** in **Volume 3** of this EIAR and marked on **Figure 15.1a/b**.

Table 15.3: National Inventory of Architectural Heritage (BH) sites located within the receiving environment

BH No.	NIAH No.	Classification	Dist. from Proposed Development	Designation
BH 1	16404006	Mausoleum	c. 40m	NIAH, RPS, Proposed RMP
BH 2	16404005	Shelton Abbey	c. 125m	NIAH, RPS

15.3.3.2 Garden Survey

The National Inventory of Architectural Heritage has also carried out a garden survey of the demesne landscapes in County Wicklow and the first edition Ordnance Survey map of County Wicklow (1839) shows the extent of demesne landscapes as shaded portions of land within the receiving environment. These were established as a naturalised landscaped setting for the large houses of the landed gentry.

There are two demesnes depicted on the first edition OS map, both listed on the Garden Survey of the National Inventory of Architectural Heritage, within a 200m radius of the proposed development. The proposed development is partially situated within the demesne landscape of Shelton Abbey (DL 1; NIAH Garden 4251) and that of Ballyraine House (DL 2; NIAH Garden 4418). The identified demesne landscapes are listed in **Table 15.4** and marked on **Figure 15.1a/b**.

Table 15.4: Demesne Landscapes (DL) located within the receiving environment

DL No.	NIAH No.	Name	Description	Dist. from Proposed Development
DL 1	4251	Shelton Abbey	The NIAH entry records that the 'buildings and woodland indicated, area labelled Shelton Abbey' on the current OS. The Avoca River Business Park has been established within the southeast corner of the demesne; however, the principal structure of Shelton Abbey still survives, and the footprint and boundary are still visible.	0m

DL No.	NIAH No.	Name	Description	Dist. from Proposed Development
DL 2	4418	Ballyraine House	The footprint and boundary of the demesne are still visible on the aerial photography; however, the M11 Bypass was constructed through the site.	0m

15.3.4 National Museum of Ireland (NMI): Topographical Files

Information on artefact finds from the study area in County Wicklow has been recorded by the National Museum of Ireland since the late 18th century. Location information relating to these finds is important in establishing prehistoric and historic activity in the study area.

A review of the topographical files revealed that no stray finds have been recovered from within the receiving environment of the proposed development.

15.3.5 Areas of Archaeological Potential

Areas of Archaeological Potential (AAPs) can be defined as parts of the landscape that possess the potential to contain archaeological remains due to the presence of topographic features such as the coastal resource, rivers, lakes, turloughs, high defendable ground and bog. Intertidal zones, rivers and lakes are a focus for human habitation due to the obvious transport and food resources. They (along with bogs) also have the potential to preserve organic archaeological deposits or artefacts such as wood or leather, which do not usually survive within the alkaline conditions associated with terrestrial archaeology.

Whilst the receiving environment area does not contain bogland, it is located in close proximity to the coastal resource, a river, and contains a number of small watercourses. The desirability of the landscape as a place for settlement is clearly demonstrated by the presence of multiple enclosure sites. AAPs have been identified within the proposed development and its receiving environment and are tabulated in **Table 15.5** and marked on **Figure 15.1a/b**.

Table 15.5: Areas of Archaeological Potential located within the receiving environment

AAP No.	Name	Dist. from Proposed Development
AAP 1	Cliffs/ Coastal Resource at Johnstown North	0m
AAP 2	Johnstown South watercourse	0m
AAP 3	Ticknock watercourse Watercourse, portion in townland boundary between Ballymoney/ Seabank	0m
AAP 4	Watercourse, portion in townland boundary between Ballymoney/ Killiniskyduff	0m
AAP 5	Watercourse in townland boundary between Killiniskyduff/ Ballymoney	0m
AAP 6	Templerainy Stream	0m

AAP No.	Name	Dist. from Proposed Development
AAP 7/8	Coolboy Stream & Kilbride Stream	0m
AAP 9	Kilbride Church Stream	0m
AAP 10	Canal / Sheepwalk Stream	0m
AAP 11	Avoca River	0m

15.3.6 Cultural Heritage Sites

The term ‘cultural heritage’ can be used as an over-arching term that can be applied to both archaeology and architecture. However, it also refers to more ephemeral aspects of the environment, which are often recorded in folklore or tradition or possibly date to a more recent period.

After William of Orange defeated James II at the Battle of the Boyne in 1690, James II stayed at Shelton Abbey (BH 2; RPS 40-05), Arklow on his way to France via Waterford. Tradition has it that whilst there James II suffered from a nosebleed, which was a common ailment of his. The wood in the porch of the Abbey was stained by James’ blood but the wood was cut out and kept as a souvenir. The wood remained at the Abbey until 1860, when a careless servant threw it out onto a rubbish fire. Another tradition claims that the avenue of beech trees he travelled by to first arrive at the house was named King James Road after him (The Schools’ Collection 0923/236; heritage.wicklowheritage.org).

The archaeological and architectural sites within the receiving environment identified in **Sections 15.3.2** and **15.3.3** are also considered to be cultural heritage sites. No other specific cultural heritage features were identified within the receiving environment of the proposed development during the course of this appraisal through the analysis of historic mapping, aerial photography and a field inspection.

15.3.7 Townlands

The townland is an Irish land unit of considerable longevity as many of the units are likely to represent much earlier land divisions. However, the term townland was not used to denote a unit of land until the Civil Survey of 1654. It bears no relation to the modern word ‘town’ but like the Irish word ‘baile’ refers to a place. It is possible that the word is derived from the Old English *tun land* and meant ‘the land forming an estate or manor’ (Culleton 1999, 174).

Gaelic land ownership required a clear definition of the territories held by each sept and a need for strong, permanent fences around their territories. It is possible that boundaries following ridge tops, streams or bog are more likely to be older in date than those composed of straight lines (*ibid.* 179).

The vast majority of townlands are referred to in the 17th century, when land documentation records begin. Many of the townlands are mapped within the Down Survey of the 1650s, so called as all measurements were carefully ‘laid downe’ on paper at a scale of forty perches to one inch. Therefore, most are in the context of pre-17th century landscape organisation (McErlean 1983, 315).

In the 19th century, some demesnes, deer parks or large farms were given townland status during the Ordnance Survey and some imprecise townland boundaries in areas such as bogs or lakes, were given more precise definition (*ibid.*). Larger tracts of land were divided into several townlands, and named Upper, Middle or Lower, as well as Beg and More (small and large) and north, east, south, and west (Culleton 1999, 179). By the time the first Ordnance Survey had been completed a total of 62,000 townlands were recorded in Ireland.

The proposed development area is located within the townlands of Shelton Abbey, Coolboy, Killiniskyduff, Kilbride, Johnstown North, Johnstown South, Seabank, Ballymoney, and Ballyraine Lower. The surrounding townlands in the receiving environment consist of Ballyraine Middle, Shelton, Marsh, Templerainy and Glenart. The townlands are situated in the parishes of Kilbride and Arklow, and barony of Arklow, County Wicklow.

15.3.8 Place Name Analysis

Townland and topographic names are an invaluable source of information on topography, land ownership and land use within the landscape. They also provide information on history; archaeological monuments and folklore of an area. A place name may refer to a long-forgotten site and may indicate the possibility that the remains of certain sites may still survive below the ground surface. The Ordnance Survey surveyors wrote down townland names in the 1830's and 1840's, when the entire country was mapped for the first time. Some of the townland names in the study area are of Irish origin and through time have been anglicised. The main references used for the place name analysis are Irish Local Names Explained by P.W Joyce (1870), and www.logainm.ie.

Table 15.6: Place Names located within the receiving environment

Name	Derivation	Possible Meaning
Shelton Abbey	<i>Shelton</i>	A historical account of the Howard family dated 1799 records that Robert Hassels acquired the Shire of Arklow in 1658. His wife named his house Shelton, a common place name in England.
Coolboy	<i>An Chúil Bhuí</i>	The yellow corner
Killiniskyduff	<i>Coill an Uisce Dhuibh</i>	Wood of the black water
Kilbride	<i>Cill Bhríde</i>	Bridget's church
Johnstown North	<i>Ballyfonicke</i> [leg. -sonicke]	John's town
Johnstown South	<i>Ballyfonicke</i> [leg. -sonicke]	John's town
Seabank	<i>Seabank</i>	Originally known as part of the lands at Killiniskyduff beside the sea
Ballymoney	<i>Baile Muine</i>	The town of the shrubbery
Ballyraine Lower	<i>Baile an Ráithín</i>	Town of the fort

Name	Derivation	Possible Meaning
Ballyraine Middle	<i>Baile an Ráithín</i>	Town of the fort
Shelton	<i>Shelton</i>	A historical account of the Howard family dated 1799 records that Robert Hassels acquired the Shire of Arklow in 1658. His wife named his house Shelton, a common place name in England.
Marsh	<i>Marsh</i>	A marsh to the north of the Avoca, also known as Hickey's Marsh, Kilbride Marsh, Byrnes Marsh, and Bryan's Marsh
Templerainey	<i>i Cill Rignaige</i>	St. Rainey's church
Glenart	<i>Gleann Airt</i>	Art's glen/ valley
Arklow	<i>Arnkell</i>	A Norse name meaning a low-lying meadow near a river
Wicklow	<i>Wkynglo</i>	A Norse name meaning meadow of the Vikings

15.3.9 Summary of Previous Archaeological Investigations

A review of the Excavations Bulletin (1970–2020) revealed that there have been four previous licenced archaeological investigations within the proposed development and its receiving environment. These are summarised below in **Table 15.7**.

Table 15.7: Summary of Previous Archaeological Fieldwork carried out within the receiving environment

Licence	Reference	Description	Dist. from Proposed Development
97E0083	Bennett 1997:618; Bennett 1998:683	Archaeological monitoring of topsoil stripping along the route of the M11 Bypass identified three archaeological sites in former tillage fields. Site 1: a small deposit of dark charcoal-like material 0.23m below ground surface in sandy, red-brown soil. Site 2: a deposit of charcoal (0.5m by 0.44m, 0.2m deep) associated with a scatter of cremated bone in a layer of sandy, brown, and reddish-brown soil. Partially protected by three relatively small field stones. The main deposit had been disturbed by topsoil stripping machines and spread the charcoal and bone over a distance of 4.5m. Site 3: three separate pits and a linear spread. The pits had a diameter of 0.7-0.9m and depths of 0.3-0.4m. The deposits consisted of a black clay with inclusions of numerous sherds of pottery, charcoal, fragments of burnt bone, and flint. Two of the pits' edges were lined with large stones. The spread had a diameter of 0.48m and a depth 0.2m, a matrix of mid-brown/yellow, redeposited sand containing two fragments of flint and occasional fragments of charcoal. The site may be regarded as a flat cemetery.	0m-c. 185m

Licence	Reference	Description	Dist. from Proposed Development
		The SMR files record that under this licence three spreads of burnt mound material (AH 1; RMP WI040-051), shallow pits containing Neolithic pottery and flint scrapers (AH 2; RMP WI040-055), a burnt pit containing two pieces of chert (AH 5; RMP WI040-054), a furnace containing slag and waste iron (AH 6; RMP WI040-050), two burnt mounds (AH 12/14; RMP WI040-052/3), and four cremation pits containing Beaker pottery and flint artefacts (AH 15; RMP WI040-058).	
97E0303	Bennett 1997:610	Monitoring of topsoil stripping for the M11 Bypass exposed a horseshoe-shaped spread of burnt stones and charcoal 5–6m in diameter beside a stream in a small valley in Coolboy (AH 9; RMP WI040-049). A flint flake was recovered from the surface of the burnt mound; however, no trough or hearth were identified.	c. 60m
09E085; 09D014; 09R046	Bennett 2009:853	An intertidal, underwater, and metal detection survey was carried out of an area of foreshore and seabed in advance of a proposed cable at Johnstown Beach. No archaeological remains were identified.	c. 90m
97E0324	Bennett 1997:616	The site of a Bronze Age settlement (AH 11; RMP WI040-048) was uncovered during monitoring for the M11 Bypass in Kilbride. The site took the form of an oval structure with a number of post-holes and two linear ditches. A small amount of cremated human remains was discovered in one of the post-holes. All of the features contained flint and decorated pottery sherds of late developed Beaker, Cordoned Urn, and Vase.	c. 95m

15.3.10 Cartographic Analysis

15.3.10.1 William Petty, Down Survey, Barony of Arklow, c. 1655

The town of Arklow is marked within the Shires of Arklow on this map. The town includes the castle, abbey, and a small number of houses; however, they are representations of buildings rather than an accurate guide. The townland of Abbeyland is also marked to the south of the town. The proposed development area is not featured on this map and no other features are depicted within the Shires of Arklow.

15.3.10.2 Jacob Nevill, Map of Wicklow, 1760

Nevill's map depicts the town of Arklow to the south of the 'Ovaca' River (**Figure 15.1**). To the north of the river a road system representing the modern R772 Dublin Road, L95116 Love Lane, R750 Sea Road, and L2180 Beech Road is laid out. The proposed development is located within open fields and traverses past several annotated features; Ballymoney House, Johnstown House, Shelton Abbey (BH 2; RPS 40-05), and Kilbride Church (AH 4; RMP WI040-021001). A small portion of the proposed development is visible on the south bank of the Avoca River bordering the route of the modern R747 Vale Road.

15.3.10.3 Ordnance Survey Map, 1838, scale 1:10,560

This is the first map to accurately depict the proposed development area (**Figure 15.2**). The proposed development is situated within a rural landscape and traverses through a large number of open fields populated with small farmyard structures and quarries/ extraction pits. Pucks Bridge is annotated on the modern R750 Sea Road immediately adjacent to the proposed development. The large farmyard structures of Ballymoney House and Johnstown House are still depicted on this map. A New R.C. Chapel is annotated at a fork in the R772 Dublin Road c. 35m from the proposed development in Templerainy.

The proposed development extends into the demesne of Ballyraine House (DL 2; NIAH Garden 4418) and traverses through the southeast corner of the extensive demesne of Shelton Abbey (DL 1; NIAH Garden 4251). The principal structure (BH 2; RPS 40-05) is located c. 125m from the proposed development. Kilbride Church (AH 4; RMP WI040-021001) c. 30m from the proposed development is annotated as in ruin within a graveyard (AH 3; RMP WI040-021002). A square structure representing the mausoleum (BH 1; AH 7; RPS 40-07, RMP WI040-021004) is also depicted within the graveyard. Woodmount House is depicted for the first time in the townland of Kilbride c. 150m from the proposed development.

15.3.10.4 Ordnance Survey Map, 1887, scale 1:10,560

This edition of the OS map depicts a similar landscape to the previous OS map with minor changes to the layout of the field boundaries, farmyard structures, and dispersion of the quarries/ extraction pits within the proposed development and its receiving environment. The only significant changes are that the railway line has been laid out adjacent to the proposed development in Ballyraine Lower on the south bank of the Avoca River and a national school has been built beside the New R.C. Chapel.

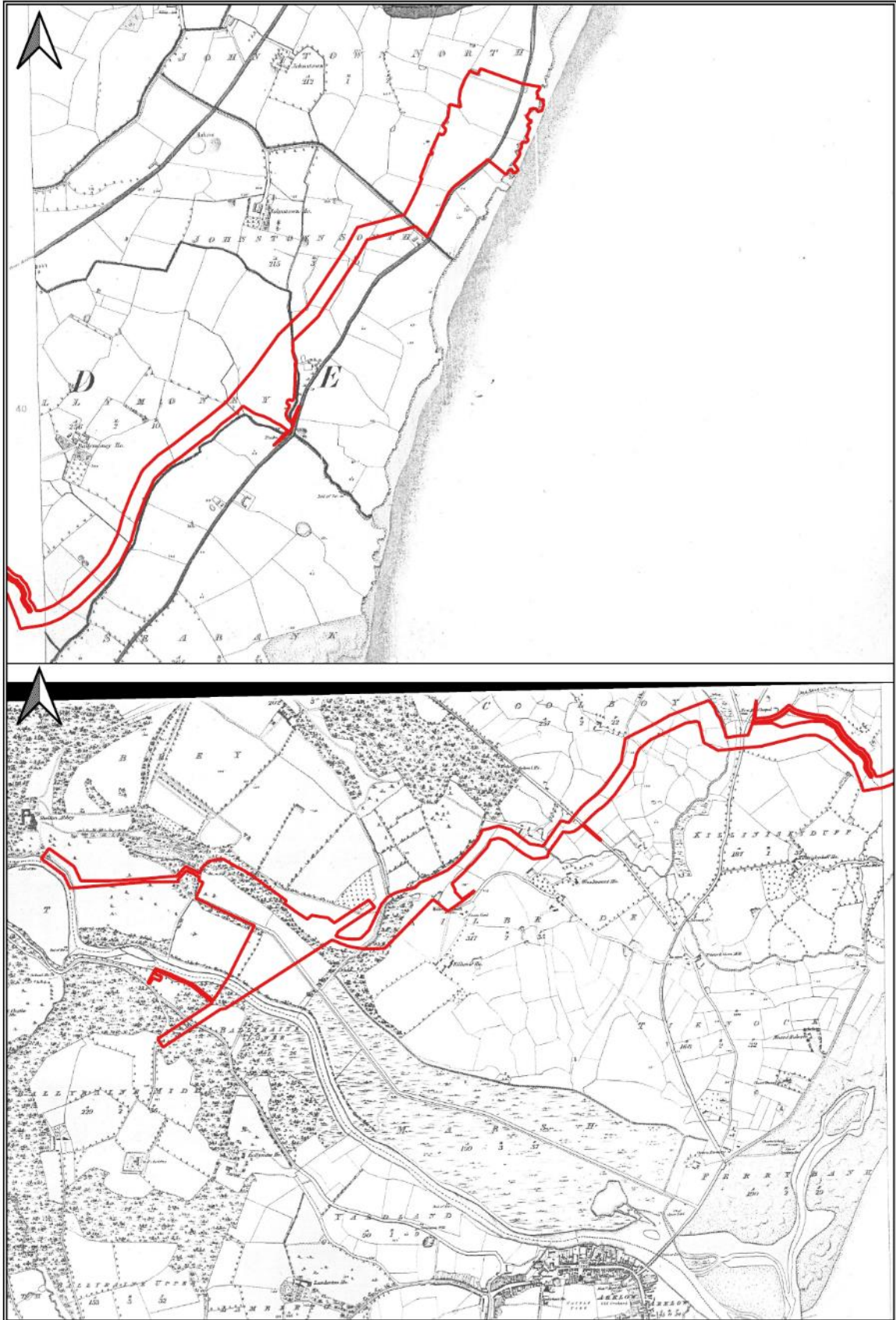


Figure 15.3: Extract from the 1838 OS Map Showing the Location of the Proposed Development

15.3.10.5 Ordnance Survey Map, 1907-9, scale 1:2,500

Similarly, to the previous OS map there have been minor alterations to the field boundaries, farmyard structures, and dispersion of the quarries/ extraction pits within the proposed development and its receiving environment. The mausoleum (BH 1; AH 7; RPS 40-07, RMP WI040-021004) is annotated within Kilbride graveyard (AH 3; RMP WI040-021002). The school and chapel at the fork in the R772 Dublin Road from the previous map are annotated as Templerainy School and St. Joseph's R.C. Church respectively. A smithy is marked bordering the proposed development in Killinskyduff to the south of the fork in the R772 Dublin Road. There are no other changes of note.

15.3.11 Aerial Photographic Analysis

Inspection of the aerial photographic coverage of the proposed development area held by the Ordnance Survey (1995-2013), Google Earth (2010-2020), and Bing Maps (2020) revealed that the proposed development traverses through a rural landscape to the east of the M11 Bypass and terminates at the Avoca River Business Park to the west of the M11 Bypass. The receiving environment has remained mostly undisturbed fields since the 1995 OS imagery with the exception of the construction of the M11 Bypass between 1995 and 2000. Disturbance was also noted within the proposed development in the townland of Shelton Abbey to the immediate east of Avoca River Business Park on the 2000 OS imagery and 2017 Google Earth coverage.

15.3.12 Field Inspection

The field inspection sought to assess the site, its previous and current land use, the topography, and any additional information relevant to the report. During the field investigation the proposed development and its immediate surrounding environs were inspected. The inspections were carried out by IAC Archaeology over the course of a number of dates; the 24th January, the 21st May, the 24th June, the 30th July, and the 20th November 2020.

For ease of discussion the proposed development has been divided into eight sections representing each of the townlands it is located in.

15.3.12.1 Johnstown North

The landfall area for the proposed development is situated within a pastoral field and an area of scrubland lying on clifftops (AAP 1) to the immediate west of the coast (**Figure 15.3**). The R750 Sea Road lies to the east of the landfall area and separates it from the rest of this section of the proposed development.

The remainder of the proposed development within this townland consisted of two undulating open fields and half of a third open field to the west of the R750 Sea Road. The fields are bounded by mature hedgerows (**Figure 15.4**). A former field boundary visible on the 1838 OS map is located in the northernmost field.

A pond and lynchets (earth bank built up against a field boundary as a result of ploughing) are present at the north-western end of the former boundary bordering the proposed development (**Figure 15.5**). The pond occupies the location of a quarry/extraction pit on the 1838 OS map. The southernmost field is bordered by mature trees and the L95115 to the southwest, which forms the townland boundary between Johnstown North and Johnstown South (**Figure 15.6**).



Figure 15.4: Southern Portion of Landfall in Johnstown North (AAP1), Facing Southeast



Figure 15.5: Open fields in Johnstown North, Facing South



Figure 15.6: Possible lynchet in Johnstown North, Facing West



Figure 15.7: Townland boundary between Johnstown North and Johnstown South, Facing Northwest

15.3.12.2 Johnstown South

The proposed development contains portions of four open fields in Johnstown South bound by vegetation (**Figure 15.7**). The two fields in the north of the townland are bordered to the northeast by the townland boundary between Johnstown North and Johnstown South, mature trees and the L95115.

The townland boundary between Johnstown South and Ballymoney forms the west limit of the southernmost field and consists of mature vegetation and a stream (AAP 2). The field sharply slopes down to the stream (**Figure 15.8** and **Figure 15.9**).



Figure 15.8: Open field in Johnstown South, Facing Southwest



Figure 15.9: Southernmost Field in Johnstown South Towards Townland Boundary with Ballymoney (AAP 2), Facing Southwest



Figure 15.10: Townland Boundary Between Johnstown South and Ballymoney (AAP 2), Facing Northwest

15.3.12.3 Ballymoney

There are ten open fields within the proposed development in Ballymoney. The townland boundary between Ballymoney and Johnstown South (AAP 2), formed by mature vegetation and a stream, extends along the eastern limit of the northernmost field (**Figure 15.10**). There is a flat raised area in the southern portion of this field that offers clear views of the surrounding area.

The townland boundary between Seabank and Ballymoney forms the southern limit of the northernmost field and contains a stream in mature vegetation (AAP 3). The townland boundary extends along the eastern limit of six of the fields and contains a stream in mature vegetation (AAP 4; **Figure 15.11**). The fields are undulating and bordered by mature hedgerows with the exception of one overgrown marshy sub-rectangular field bound by two drains (**Figure 15.12**).

The southernmost field in Ballymoney is also bordered by the townland boundary with Killiniskyduff to the southwest (AAP 5). A further three of the fields are bordered to the south/southwest by the townland boundary (**Figure 15.13**). This consists of a band of thick mature vegetation and trees with a small watercourse.



Figure 15.11: Northernmost Field in Ballymoney Along Townland Boundary with Johnstown South (AAP 2), Facing North



Figure 15.12: Open Field Along Townland Boundary with Seabank in Ballymoney (AAP 4), Facing Southwest



Figure 15.13: Marshy Field in Ballymoney, Facing Southeast



Figure 15.14: Open Field in Ballymoney Towards Townland Boundary with Killiniskyduff (AAP 5), Facing Southeast

15.3.12.4 Killiniskyduff

The proposed development is situated within two open fields in the townland of Killiniskyduff. The easternmost field is L-shaped, bound by mature vegetation and trees, and gently slopes down to the east. The northeast limit of the field is formed by the townland boundary with Ballymoney and the southeast limit by the townland boundary with Seabank, both of which contain watercourses (AAP 5; **Figure 15.14**).

The second field gently undulates and is bound by mature hedgerows. A thick band of mature vegetation containing a small watercourse forms the northern limit of the site (AAP 5). This also represents the townland boundary between Ballymoney and Killiniskyduff (**Figure 15.15**). A ring-ditch (RMP WI040-047) is recorded in the southern portion of the field to the west of a copse of trees c. 330m from the proposed development; however, there is no visible expression of the archaeological feature.



Figure 15.15: L-shaped Field in Killiniskyduff Along Townland Boundary with Ballymoney (AAP 5), Facing Northwest



Figure 15.16: Large Field in Killiniskyduff Along Townland Boundary with Ballymoney (AAP 5), Facing East

15.3.12.5 Coolboy

The proposed development is located within one large open undulating field to the northeast of the L2180 Beech Road and one small undulating field to the southwest of the road within this townland.

The large field is bordered to the northwest by the M11, to the west by an old access track, to the east by the Templerainy Stream (AAP 6), to the southwest by the L2180 Beech Road, and to the south by a stream defined by mature vegetation (AAP 7). The old access track is visible on the 1838 OS map and slopes up from the entrance at the L2180 to a ridge along the field. It is lined with mature vegetation and an earthen bank of varying heights (**Figure 15.16**). The northern and western portions of the field are flat and offer clear views of the surrounding area (**Figure 15.17**). There is a sharp change of slope in the eastern portion of the field as it drops to the Templerainy Stream (AAP 6; **Figure 15.18**). The stream forms the townland boundary between Coolboy and Killiniskyduff. The land to the immediate east of the stream consists of a thickly wooded escarpment.

The small field is L-shaped and bordered by a stream in mature vegetation to the west, the southwest portion of which forms the townland boundary between Coolboy and Kilbride (AAP 7). The field sharply slopes down to the stream encircling it, which is situated 0 to 3m below field level (**Figure 15.19** and **Figure 15.20**). The stream continues into the southern boundary of the large field.



Figure 15.17: Old access track in Coolboy, Facing South



Figure 15.18: Large field in Coolboy, Facing South



Figure 15.19: Templerainy Stream, Townland Boundary Between Coolboy and Killiniskyduff (AAP 6), Facing North



Figure 15.20: Small field in Coolboy (AAP 7), Facing Southwest



Figure 15.21: Townland Boundary Between Coolboy and Kilbride (AAP 7), Facing Southeast

15.3.12.6 Kilbride

The proposed development in Kilbride is situated within two open fields bound to the northwest by the M11 and a thick band of mature trees to the west of the M11. Both fields slope down to the M11 and are bounded by mature vegetation. The large field also slopes down to the townland boundary with Coolboy to the east, which is formed by mature vegetation and a watercourse c. 2/3m below the field surface (AAP 7; **Figure 15.21**). The upper half of the eastern boundary is formed by a watercourse in mature vegetation (AAP 8).

The townland boundary between Kilbride and Shelton Abbey (AAP 9) consists of a watercourse within the thick band of mature trees adjacent to a local access road (**Figure 15.22**).



Figure 15.22: Large Field in Kilbride Towards Townland Boundary with Coolboy (AAP 7), Facing East



Figure 15.23: Access Road in Shelton Abbey Along Townland Boundary with Kilbride (AAP 9), Facing Northeast

15.3.12.7 Shelton Abbey

The proposed development at Shelton Abbey extends along the L6179 Kilbride Road as it enters the Avoca River Business Park. An access road diverts north-eastwards off the road. The access road is bordered by thick bands of mature trees and forms the townland boundary with Kilbride (AAP 9). The entrance road to the business park is bordered to the north by a sub-rectangular field that sharply slopes up to the north and an escarpment covered in mature mixed broadleaf woodland (**Figure 15.23** and **Figure 15.24**).

An embankment of mature mixed broadleaf woodland lies to the south of the entrance road separating it from a large area of hardstanding. A pathway and small canal border the hardstanding to the south within the proposed development (AAP 10; **Figure 15.25** and **Figure 15.26**).

The canal (AAP 10) and path extend south-eastwards into vacant land comprising an area of scrubland. The vacant land to the north of the canal (AAP 10) and south of the entrance road slopes down to the east. The section of vacant land to the south of the canal (AAP 10), east of the Avoca River Business Park, and north of the Avoca River (AAP 11) is flat and overgrown (**Figure 15.27**). The north bank of the Avoca River (AAP 11) is at a reduced level to the rest of the vacant land. The flood defences of the proposed development extend westwards from the access to the Avoca River Business Park across an area of hardstanding and terminate in an open field to the north of the business park.

As part of the development, an overhead line (OHL) connection from the proposed substation to the national electricity transmission network (NETN) will be required. This connection will be via a 'loop in' arrangement consisting of a northern loop-in to the transmission network of approximately 270m and a southern loop-in to the transmission network of approximately 350m in length. It will include the construction of 2 new towers, 40m in height and the decommissioning of two existing towers, as well as re-stringing the overhead line between these towers. One of the new towers is to the east of the substation, the other to the south of the substation and the Avoca River, in Ballyrairie Lower.



Figure 15.24: Field to North of Entrance Road in Shelton Abbey, Facing Northeast



Figure 15.25: Escarpment to North of Entrance Road in Shelton Abbey, Facing East



Figure 15.26: Area of Hardstanding in Shelton Abbey, Facing Northwest



Figure 15.27: Canal and Pathway Traversing Shelton Abbey (AAP 10), Facing Northwest



Figure 15.28: Vacant Land in Shelton Abbey, Facing South-Southwest

15.3.12.8 Ballyraine Lower

The flood defences forming part of the proposed development in Ballyraine Lower are located on a hill on the south bank of the Avoca River (AAP 11) and border the railway (**Figure 15.28**). The townland boundary between Ballyraine Lower and Shelton Abbey is formed by the river (AAP 11). The railway is raised above the surrounding land and two spurs of the flood defences traverse underneath the railway to connect to the R747 Vale Road (**Figure 15.29**). The road forms the townland boundary between Ballyraine Lower and Ballyraine Middle. One of the spurs continues into the demesne of Ballyraine House (DL 2).



Figure 15.29: Proposed Development Towards Avoca River and Ballyraine Lower from North bank (AAP 11), Facing South-Southwest



Figure 15.30: Towards Railway from the R755 in Ballyraine Lower, Facing Northeast

15.3.12.9 Summary of Field Inspection

No previously unknown archaeological or architectural features were identified during the field inspection; however, the cliffs/coastal resource (AAP 1) in the north of the proposed development, the Avoca River (AAP 11) in the south, and the various watercourses (AAP 2-10) throughout lend the sections of the proposed development in these locations, archaeological potential.

15.3.13 Conclusions of the Baseline Analysis

The proposed development is located within a rural landscape in the townlands of Shelton Abbey, Coolboy, Killiniskyduff, Kilbride, Johnstown North, Johnstown South, Seabank, Ballymoney, and Ballyrairie Lower. A very short section of an associated access is located in Templerainy. There are eleven AAPs within the proposed development and its receiving environment. These relate to various watercourses and the coastal resource.

Archaeological work carried out in advance of the construction of the M11 Bypass uncovered evidence of a rich prehistoric landscape dating from the Neolithic period with particular emphasis on the Bronze Age (Licences 97E0083, 97E0303, and 97E0324). This is reflected within the 15 individual or groups of recorded AH sites within the proposed development and receiving environment, half of which date to the prehistoric period. The remaining archaeological heritage sites date to the early medieval and post-medieval periods. A burnt spread (AH 1; RMP WI040-051) was excavated within the proposed development in advance of the M11 Bypass and the zone of notification (ZON) for a church, graveyard, mausoleum, and redundant record (AH 3/4/7/8; RMP WI040-021001-4) partially extends into the proposed development in the townland of Kilbride.

The RPS for Wicklow and the NIAH Building Survey list two built heritage sites; a mausoleum (BH 1; RPS 40-07, NIAH 16404006) and Shelton Abbey (BH 2; RPS 40-05, NIAH 16404005) within the receiving environment of the proposed development. The mausoleum (BH 1; RPS 40-07, NIAH 16404006) is also an archaeological site (AH 7; RMP WI040-021004). A consultation of the NIAH Garden Survey and inspection of the cartographic sources identified two demesne landscapes. The proposed development is located within the southeast corner of the Shelton Abbey demesne (DL 1; NIAH Garden 4251) and the northern limit of the demesne of Ballyrairie House (DL 2; NIAH Garden 4418) to the south of the Avoca River. The archaeological and built heritage features and demesne landscapes discussed above should also be considered as cultural heritage features.

A review of the cartographic sources and the aerial photography revealed that the proposed development was situated within a rural landscape from the post-medieval period onwards. The landscape has remained largely undisturbed with the exception of the construction of the M11 Bypass in the late 1990s. No specific previously unrecorded sites of archaeological or built heritage potential were noted.

A field inspection has been carried out as part of this assessment. This confirmed the presence of a number of watercourses within the townland boundaries that traverse the proposed development area. The presence of these watercourses throughout the proposed development, the Avoca River in the south, and the cliffs/ coastal resource in the north lend archaeological potential to the proposed development. No previously unknown specific archaeological, architectural or cultural heritage sites were identified during the inspection.

Whilst no specific sites of archaeological potential were noted within the footprint of the proposed development, it should be noted that the overall landscape contains moderate to high archaeological potential due to the proximity of the coastal resource, the Avoca River and the known archaeological monuments.

15.4 Characteristics of the Proposed Development

15.4.1 Landfall

The landfall will be located at Johnstown North and will provide an underground connection between the onshore grid infrastructure and offshore infrastructure. Development will include:

- Temporary works including site establishment to include two temporary construction compounds of c. 70m x 70m and c. 125m x 120m to support Horizontal Directional Drilling (HDD) operations and construction of the north eastern end of the onshore cable respectively and including temporary cut and fill levelling works;
- Excavation, stockpiling and construction of two underground Transitional Joint Bays each comprising a concrete chamber of c. 20.0m x 5.0m x 2.5m deep and 2 No. surface manhole access covers;
- Decommissioning of site compounds and reinstatement of disturbed landscape and vegetation.

Full details of the proposed landfall facility are included in **Chapter 5 Description of Development**.

15.4.2 Onshore Cable from Landfall to 220kV Substation

The proposed 220kV cable circuits will be installed underground for a distance of c. 6.0km, using primarily open cut trenching methodologies, and where this is not appropriate at particular road or watercourse crossings, HDD will be used. Development will include:

- Open cut trenching of pairs of trenches within a temporary cable construction corridor that will typically be 30m wide to accommodate the trenches, temporary stockpiling, working areas, and haulage and access routes. The trenches will be relatively shallow, typically 2m in depth.
- Where trenches pass through field boundaries, localised tree felling and hedgerow removal will be required to facilitate construction.

- Underground Joint Bays at c. 700m intervals, comprising an underground concrete chamber c. 6.0m x 2.5m x 2.0m with a surface manhole access cover. There will be nine joint chambers per cable circuit, or a total of 18 joint chambers.
- Each joint chamber will also have an associated Communications Chamber comprising a c. 1.5m x 1.1m x 0.9m deep concrete chamber with a surface manhole access cover.
- HDD will only be used locally where open cut trenching is not appropriate and will involve horizontal drilling and reaming of a borehole and pull-back of a duct for each cable circuit. Spacing between cable circuits will vary from approximately 5m to 20m, and drilling depths will vary depending on location from approximately 5.5m up to approximately 25m in depth.
- Reinstatement of excavated surfaces, and re-planting of vegetation.
- Planting of deep-rooted plants or construction of buildings is precluded.
- Construction of permanent access tracks for construction and maintenance phases.

Full details of the proposed cable circuits are included in **Chapter 5 Description of Development**.

15.4.3 Onshore 220kV Substation

The proposed substation will occupy approximately 4ha. site within the north eastern part of the existing industrial facility. Development will include:

- Removal of existing asphalt surface and compaction of underlying ground;
- Clearance of mixed woodland and vegetation along site boundaries;
- Build-up of site area with geotextile membranes and granular fill material (remediation strategy) and incorporating drainage and finishing layers to establish a suitable formation base at 3.8m OD for the substation facility;
- A transmission compound incorporating 2 no. new 220kV 40m high overhead line towers, a 220kV Gas Insulated Switchgear (GIS) substation building, c.61m x 18.5m x 17 m high, house transformer, diesel generator and medium voltage (MV) unit substation;
- A connection compound incorporating a 220kV GIS substation building c. 50.0m x 21m and 17.0m high, 2 No. Static Synchronous Compensator (STATCOM) buildings, 30m x 23m x 10m high, each with control buildings and transformers, 2 No. harmonic filters, 2 No. voltage regulation devices, maximum 30m high lightning masts, maximum 50m high telecommunications mast, house transformer and diesel generator;
- Associated site development works including access roads, utilities, perimeter security fencing and lighting and Closed Circuit TV (CCTV), as well as low level native planting to provide soft landscaping;
- Surface water attenuation is incorporated into the sub base build up and will discharge into the existing surface water drainage ditches and canal;

- Localised raising of an existing flood defence embankment c. 500m upstream to increase the flood defence level from approximately 5.8m OD to 6.5m OD

The two new 220kV towers will be up to 40m in height, located adjacent to the GIS building in the transmission compound and will facilitate ‘looping in’ of the existing 220kV overhead line to the proposed substation.

Full details of the proposed substation are included in **Chapter 5 Description of Development**.

15.4.4 Connection to the National Electricity Transmission Network (NETN)

The proposed NETN connection will occupy an area from north east of the existing industrial facility, immediately east of the 220kV substation and extend south to lands across the Avoca River. Development will include:

- Replacement of 2 No. existing overhead line towers with 2 No. new 220kV overhead line towers, up to 40m high and diversion of cables to loop into the transmission compound and connect to existing towers to the north and south.

Full details of the proposed NETN connection are included in **Chapter 5 Description of Development**.

15.5 Assessment of Significant Effects

15.5.1 ‘Do-Nothing’ Scenario

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

15.5.2 Construction Phase

15.5.2.1 Archaeological Heritage

It is possible that ground disturbances associated with the proposed development may result in direct negative effects on previously unrecorded features or deposits that have the potential to survive beneath the current ground level without surface expression. Effects, prior to the application of mitigation measures, may range from **moderate** to **profoundly negative**, dependant on the nature, extent and significance of any such archaeological remains.

The proposed development will cross eight small watercourses (AAP 2-10). The River Avoca will be crossed by replacement overhead lines only and will not be affected by the development. Disturbances associated with the construction of the development may result in direct negative effects on previously unrecorded features or deposits that have the potential to survive in and within the immediate vicinity of the watercourses. Effects, prior to the application of mitigation measures, may range from **moderate** to **profoundly negative**, dependant on the nature, extent and significance of any such archaeological remains.

15.5.2.2 Architectural Heritage

No negative impacts are predicted upon the architectural heritage resource as a result of the construction of the development. The impact of the development at Shelton Abbey demesne is deemed to be neutral based on the denuded form of the landscape and the presence of existing industrial development.

15.5.2.3 Cultural Heritage

With the exception of those effects described above, no other effects upon the cultural heritage resource have been identified as a result of the construction of the proposed development.

Appendix 15.5 in Volume 3 provides further detail on the assessment of effects on the Cultural Heritage Resource.

15.5.3 Operation Phase

15.5.3.1 Archaeological Heritage

No effects upon the archaeological heritage resource have been identified as a result of the operation of the proposed development.

15.5.3.2 Architectural Heritage

No effects upon the architectural heritage resource have been identified as a result of the operation of the proposed development.

15.5.3.3 Cultural Heritage

No effects upon the cultural heritage resource have been identified as a result of the operation of the proposed development.

15.5.4 Decommissioning Phase

Decommissioning of substation, which may take the form of refurbishment, replacement or decommissioning will not have a negative effect on the archaeological, architectural or cultural heritage resource.

15.6 Mitigation Measures and Monitoring

15.6.1 Construction Phase

15.6.1.1 Archaeological Heritage

A programme of archaeological testing will be carried out in advance of construction within all greenfield areas of the proposed development. This will be undertaken by an archaeologist under licence and will aim to identify the nature, extent and significance of any archaeological remains that may be present within the project extents.

If any features of archaeological potential are discovered during the course of the works further archaeological mitigation may be required, such as preservation in-situ or by record and/or archaeological monitoring. Any further mitigation will require approval from the National Monuments Service of the DoHHLGH.

A programme of underwater archaeological assessment, in the form of wade surveys, will be carried out on each watercourse to be directly impacted by the proposed development. This will be carried out by an archaeologist (or archaeologists) under licence and will aim to identify the nature, extent and significance of any archaeological remains that may be present within the sections of watercourses to be affected. If any features of archaeological potential are discovered during the course of the works further archaeological mitigation may be required, such as preservation in-situ or by record and/or archaeological monitoring. Any further mitigation will require approval from the National Monuments Service of the DoHHLGH.

Appendix 15.6 in Volume 3 provides further detail on the definition of mitigation measures.

15.6.1.2 Architectural Heritage

No mitigation relating to the architectural heritage resource is deemed to be necessary.

15.6.1.3 Cultural Heritage

No mitigation relating to the cultural heritage resource is deemed to be necessary.

15.6.2 Operation Phase

15.6.2.1 Archaeological Heritage

No mitigation is deemed necessary.

15.6.2.2 Architectural Heritage

No mitigation is deemed necessary.

15.6.2.3 Cultural Heritage

No mitigation is deemed necessary.

15.6.3 Decommissioning Phase

No mitigation relating to potential decommissioning is required with regards to the archaeological, architectural or cultural heritage resource.

15.7 Cumulative Effects

This section considers the potential for cumulative effects arising from the proposed development in association with other developments.

Specifically, it considers a worst-case scenario, where both the proposed development and the proposed developments for which timelines are not known are under construction at the same time.

A tiered approach to the cumulative assessment has been undertaken, in which the proposed development is considered cumulatively with other projects as follows:

Tier 1 -

- ABWP Phase 2 Offshore Infrastructure;
- ABWP Phase 2 Operations and Maintenance Facility (OMF);
- EirGrid Grid Upgrade Works; and
- Irish Water Upgrade Works.

Tier 2 -

- Other relevant projects currently under construction;
- Other relevant projects with consent;
- Other relevant projects in the planning process; and
- Other existing projects that were not operational when baseline data were collected.

All projects considered are detailed in **Chapter 21 Summary of Cumulative Effects** of the EIAR.

Having considered all of the above developments, and as all negative impacts upon the archaeological, architectural and cultural heritage resource will be fully mitigated as detailed in **Section 15.6** of this assessment, no cumulative impacts upon the archaeological, architectural or cultural heritage resource have been identified.

15.7.1 Construction Phase

No cumulative effects have been identified upon the archaeological, architectural or cultural heritage resource. All archaeological remains will be subject to preservation, either by record or in-situ.

15.7.2 Operation Phase

No cumulative effects have been identified upon the archaeological, architectural or cultural heritage resource.

15.8 Residual Effects

15.8.1 Construction Phase

Following the implementation of the above mitigation measures, no significant negative residual effects to the archaeological, architectural, or cultural heritage resource as a result of the construction phase of the proposed development are predicted.

15.8.2 Operation Phase

The operation of the proposed development will not have any residual effects upon the archaeological, architectural or cultural heritage resource.

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