

## 9.0 CULTURAL HERITAGE

### 9.1 Introduction

This chapter of the remedial Environmental Impact Assessment Report (rEIAR) presents a retrospective assessment of the potential effects that may have occurred, and may continue to occur, on cultural heritage as a result of activities at the existing quarry site at Redcross Quarry, Ballinabarny, Co. Wicklow ('the Site') between 1990 and the present day. This rEIAR has been prepared to accompany a substitute consent application for an existing quarry at Redcross Quarry, Ballinabarny, Co. Wicklow.

The choice of team members for each study has been informed by the experience of the relevant lead specialist in their area of technical interest. The cultural heritage assessment has been prepared by Conor Ryan (BA Jt. Hons.). Conor is an Associate of the Chartered Institute for Archaeologists (CIfA) and has more than 8 years' experience in cultural heritage assessment.

The lands comprising the subject of this rEIAR extend to ca. 23.7 ha and reflect the historic operational site area, including the extractable area declared under S.261 quarry registration in 2005. The quarry extraction area that makes up the application for the substitute consent planning unit currently extends to ca. 20.16 ha and lies centrally within the Site. The lands adjacent to the Site are used for agricultural purposes (including pasture and tillage), with plantations of trees located along the western and eastern edges of the Site. An area of 'heath' and scrub occurs immediately adjacent to the south of the Site. Farmyards and one-off residential properties also occur in the vicinity of the Site.

The current quarry void is centrally located within the EIA unit and is roughly square in shape. The existing administration, maintenance, storage and welfare facilities are located at the southern edge of the Site, with the aggregate processing plant area located towards the centre of the Site. At baseline, in 1990, the quarried area has been determined to have extended to approximately 0.75 ha, with an average working depth of approximately 124 m AOD. By 2022, it has been determined to have expanded laterally to approximately 20.16 ha, with an average lower working depth of approximately 114 m AOD.

A detailed description of the Site and the activities that have been undertaken ('the Development') can be found in Chapter 2 of this rEIAR (Project Description).

#### 9.1.1 Scope

The scope of this cultural heritage assessment comprises a baseline study, effects analysis and retrospective impact assessment for the Development. The baseline is informed by the results of desk-based and archival research.

The impact assessment considers both direct and indirect impacts of the Development upon cultural heritage assets, and also considers cumulative and combined effects. Mitigation measures that were used between 1990 and 2022 are described and, where relevant, additional measures have been recommended that could be implemented now, with residual effects subsequently assessed.

In lieu of specific guidance from the Institute of Archaeologists of Ireland (IAI), this impact assessment conforms to the guidelines set out by the Chartered Institute for Archaeologists (CIfA, 2020a<sup>1</sup>; 2020b<sup>2</sup>).

For the purposes of this rEIAR, the term 'cultural heritage' is used as a collective term to refer to all assets of archaeological, architectural and historical or cultural value. Archaeological heritage typically refers to objects, monuments, buildings, environmental remains or cultural landscapes older than AD 1700, although it can also

---

<sup>1</sup> CIfA (2020a). Standard and guidance for commissioning work or providing consultancy advice on archaeology and the historic environment.

<sup>2</sup> CIfA (2020b). Standard and guidance for historic environment desk-based assessment.

be used to describe objects, monuments and other tangible remains that date from post-AD 1700<sup>3</sup>. Architectural heritage (or built heritage) refers to structures or buildings (including their contents) of cultural value that are younger than AD 1700. Designed landscapes and gardens dating to post-AD 1700 are also considered to be architectural in this assessment. In both cases, the setting of an asset is considered an integral part of its value.

### 9.1.2 Site Location and Description

The Site is located in the townland areas of Ballinabarny North and Bolagh Lower, Redcross, Co. Wicklow, centered at coordinates 722164, 686418 (ITM95).

The lands comprising the subject of this rEIAR are roughly square in shape, and are bounded by agricultural lands, with a network of streams and hedgerows delineating the Site boundary on all sides. In this way, the immediate character of the lands is rural, with low density, one-off roadside housing and farmyards.

### 9.1.3 Study Area

In order to capture sufficient baseline data to robustly assess direct impacts to cultural heritage assets, the spatial scope of the assessment comprises all the land within the Site (i.e. land situated within the 'EIA Boundary'), together with a buffer of 1 km around the Site to allow the assessment of indirect impacts. This buffer area is considered to be appropriate, given the nature of the Development and the purpose of this rEIAR. The Study Area is shown in Figure 9.1 (Section 9.4).

### 9.1.4 Chapter Structure

This chapter is divided into the following sections:

- 9.1 – Background and Scope, which includes details of the assessment scope, study area and structure;
- 9.2 – Policy and Legislation Context, which includes a description of legislation, policy, standards and guidance relevant to cultural heritage;
- 9.3 – Assessment Methodology and Significance Criteria, which presents a description of how the assessment has been undertaken and includes any assumptions that have been made or limitations that have been encountered;
- 9.4 – Baseline Conditions, which presents the sources of information used, a detailed breakdown of the assets recorded, a summarised historic map regression and a summarised appraisal of previous archaeological investigations in the study area;
- 9.5 – Potential Effects, which summarises the cultural heritage assets considered in the assessment and identifies the sensitivity of those assets. It also retrospectively presents the potential effects upon these assets as a result of the Development during construction and operation;
- 9.6 – Mitigation and Monitoring, which presents details of mitigation and monitoring that was adopted to manage potential effects;
- 9.7 – Residual Effects, which presents the residual effects of the Development, taking account of mitigation;
- 9.8 – Cumulative Effects, which presents details of any potential effects that, when considered alongside other developments, could have cumulatively impacted cultural heritage assets;

---

<sup>3</sup> AD 1700 is a point in time used by the National Monuments Service and the National Inventory of Architectural Heritage to distinguish between 'archaeology' and 'architecture'. Although archaeological remains exist that are younger than AD 1700, any buildings, structures or designed landscapes/gardens built during this period are considered in this assessment to be 'architectural'.

- 9.9 – Remedial Measures, which details any additional mitigation measures that could be implemented now; and
- 9.10 – Summary and Conclusions, which presents a summary of the assessment and final conclusions.

## **9.2 Policy and Legislative Context**

### **9.2.1 Legislation and Guidance**

The Minister for Housing, Local Government and Heritage (representing the Department of Housing, Local Government and Heritage) is responsible for the conservation, preservation, protection and presentation of Ireland's cultural heritage. The protection of archaeological heritage is the responsibility of the National Monuments Service (NMS), whilst architectural heritage is the responsibility of the Built Heritage Policy Section (including the Architectural Heritage Advisory Service (AHAS) and National Inventory of Architectural Heritage (NIAH)).

At the national and international level, the key legislation pertinent to this assessment includes:

- Proposed Monuments and Archaeological Heritage Bill;
- The National Monuments Acts, 1930 to 2004;
- The Heritage Act, 1995;
- The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999;
- The Planning and Development Acts, 2000 to 2016;
- The Convention concerning the Protection of the World Cultural and Natural Heritage (1972), ratified by the Irish Government in 1991; and
- The European Convention on the Protection of the Archaeological Heritage (Revised) (1992), ratified by the Irish Government in 1997.

Guidelines on the assessment of impacts on, and the protection of, cultural heritage assets in Ireland have been consulted and adhered to for this impact assessment, including:

- Guidelines on the information to be contained in Environmental Impact Assessment Reports (2022) – EPA;
- The Framework and Principles for the Protection of the Archaeological Heritage (1999) – Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI); and
- Architectural Heritage Protection: Guidelines for Planning Authorities (2011) - Department of Arts, Heritage, and the Gaeltacht (DAHG).

### **9.2.2 Legislative Mechanisms of Protection**

There are a number of mechanisms for heritage protection in Ireland. Heritage assets can be protected under the National Monuments Acts 1930 to 2004 in four ways:

- The asset is recorded in the Record of Monuments and Places (RMP);
- The asset is registered in the Register of Historic Monuments (RHM);
- The asset is a national monument subject to a Preservation Order (or Temporary Preservation Order); or
- The asset is a National Monument in State Care.

Heritage assets can also be protected under the Planning and Development Act 2000, which requires all Local Authorities to curate and maintain a Record of Protected Structures (RPS). An asset is protected if it is inscribed on a county's RPS. Protected Structures may be archaeological in nature, and so an asset may appear on both the RMP and county RPS.

The 'Convention concerning the Protection of the World Cultural and Natural Heritage' (1972) provides the United Nations Educational, Scientific and Cultural Organization (UNESCO) with the power to inscribe assets of international importance on the World Heritage List as a World Heritage Site. Local authorities and stakeholders are encouraged to protect these sites through the production of Management Plans, which aim to manage the site in a suitable fashion.

Local authorities also have mechanisms by which to protect heritage assets, including the creation of Architectural Conservation Areas (ACAs) and Areas of Archaeological Potential (AAPs) (or equivalents).

The mechanisms of heritage protection described here also afford protection to the setting of cultural heritage assets, as well as the physical assets.

### 9.2.3 Planning Policy

At the local level, the Wicklow County Development Plan (WCDP) (2016-2022) guides planning policy in relation to cultural heritage. Chapter 10 of the WCDP specifically outlines the approach taken by Wicklow County Council (WCC) to protecting architectural and archaeological heritage within the planning process. Policy areas pertinent to this assessment are summarised in Table 9.1. A Draft Wicklow County Development Plan (2021-2027) has been prepared and public consultation was undertaken in 2021, with policies relevant to 'Built Heritage' described in Chapter 8. Consideration has been afforded to these draft policies, but the WCDP (2016-2022) remains as the current planning policy document.

WCC also has a heritage management plan (County Wicklow Heritage Plan 2016 – 2022), which has been consulted for reference, where applicable.

**Table 9.1: WCDP Relevant Policies and Objectives - Cultural Heritage**

Policy Area	Policy
Archaeological Heritage	BH1 - No development in the vicinity of a feature included in the Record of Monuments & Places (RMP) will be permitted which seriously detracts from the setting of the feature or which is seriously injurious to its cultural or educational value.
	BH2 - Any development that may, due to its size, location or nature, have implications for archaeological heritage (including both sites and areas of archaeological potential / significance as identified in Schedule 10.01 & 10.02 and Map 10.01 & 10.02 of this plan) shall be subject to an archaeological assessment. When dealing with proposals for development that would impact upon archaeological sites and/or features, there will be presumption in favour of the 'preservation in situ' of archaeological remains and settings, in accordance with Government policy. Where permission for such proposals is granted, the Planning Authority will require the developer to have the site works supervised by a competent archaeologist.
	BH3 - To protect previously unknown archaeological sites and features, including underwater sites, where they are discovered during development works.
	BH5 - To protect the Hillforts in west Wicklow and to engage with the relevant central Government department to seek to undertake a detailed study of their importance.
Architectural Heritage	BH8 - To have regard to 'Architectural Heritage Protection: Guidelines for Planning Authorities' (Department of Arts, Heritage and the Gaeltacht, 2011) in the assessment of proposals affecting architectural heritage.

Policy Area	Policy
	BH9 - To ensure the protection of all structures (or parts of structures) contained in the Record of Protected Structures.
	BH10 - To positively consider proposals to improve, alter, extend or change the use of protected structures so as to render them viable for modern use, subject to consultation with suitably qualified Conservation Architects and / or other relevant experts, suitable design, materials and construction methods.
	BH11 - All development works on or at the sites of protected structures, including any site works necessary, shall be carried out using best heritage practice for the protection and preservation of those aspects or features of the structures / site that render it worthy of protection.
	BH12 - To support the re-introduction of traditional features on protected structures where there is evidence that such features (e.g. window styles, finishes etc) previously existed.
	BH13 - To strongly resist the demolition of protected structures, unless it can be demonstrated that exceptional circumstances exist. In cases where demolition or partial demolition is permitted or where permission is given for the removal of feature(s), the proper recording of the building / feature will be required before works are undertaken and where possible the reuse of such features should be considered in any replacement buildings.
	BH14 - The Planning Authority shall consider the change of use of Protected Structures, provided that it can be shown that the structure, character, appearance and setting will not be adversely affected or where it can be shown it is necessary to have an economic use to enable its upkeep.
	BH15 - To seek (through the development management process), the retention, conservation, appropriate repair and reuse of vernacular buildings and features such as milestones, stonewalls, traditional & historic shopfronts and pub fronts, thatched roofs and other historic elements. The demolition of vernacular buildings will be discouraged.
	BH16 - Development proposals affecting vernacular buildings and structures will be required to submit a detailed, true measured survey, photographic records and written analysis as part of the planning application process.
	BH17 - Where an item or a structure (or any feature of a structure) is considered to be of heritage merit (where not identified in the RPS2 ), the Planning Authority reserves the right to refuse permission to remove or alter that structure / item, in the interests of the protection of the County's architectural heritage.
	BH18 - Within Architectural Conservation Areas, all those buildings, spaces, archaeological sites, trees, street furniture, views and other aspects of the environment which form an essential part of their character, as set out in their character appraisals, shall be considered for protection. The repair and refurbishment of existing buildings within the ACA will be favoured over demolition/new build in so far as practicable.
	<p>BH19 - The design of any development in Architectural Conservation Areas, including any changes of use of an existing building, should preserve and / or enhance the character and appearance of the Architectural Conservation Area as a whole. Schemes for the conservation and enhancement of the character and appearance of Architectural Conservation Areas will be promoted. In consideration of applications for new buildings, alterations and extensions affecting Architectural Conservation Areas, the following principles will apply:</p> <ul style="list-style-type: none"> <li>■ Proposals will only be considered where they positively enhance the character of the ACA.</li> <li>■ The siting of new buildings should, where appropriate retain the existing street building line.</li> </ul>

Policy Area	Policy
	<ul style="list-style-type: none"> <li>■ The mass of the new building should be in scale and harmony with the adjoining buildings, and the area as a whole, and the proportions of its parts should relate to each other, and to the adjoining buildings.</li> <li>■ Architectural details on buildings of high architectural value should be retained wherever possible. Original features, which are important to a building's character such as window type, materials, detailing, chimneys, entrances and boundary walls, both within and outside the architectural conservation area should be retained where possible.</li> <li>■ A high standard of shopfront design relating sympathetically to the character of the building and the surrounding area will be required.</li> <li>■ The materials used should be appropriate to the character of the area. Planning applications in ACAs should be in the form of detailed proposals, incorporating full elevational treatment and colours and materials to be used.</li> <li>■ Where modern architecture is proposed within an ACA, the application should provide details (drawings and/or written detail) on how the proposal contributes to, or does not detract from the attributes of the ACA.</li> </ul>
Historical and Cultural Heritage	BH22 - To protect and facilitate the conservation of structures, sites and objects which are part of the County's distinct local historical and cultural heritage, whether or not such structures, sites and objects are included on the RPS.

## 9.3 Assessment Methodology and Significance Criteria

### 9.3.1 Assessment Methodology

This assessment has been produced in accordance with national and local legislation and policy, as well as best practice guidance. The impact assessment methodology aligns with EPA guidelines (EPA, 2022) and has been adapted from the advice provided by the National Roads Authority (NRA), in their Guidelines for the Assessment of Architectural Heritage Impacts of National Roads Schemes and Guidelines for the Assessment of Archaeological Heritage Impacts of National Roads Schemes (no publication date). These guidelines can be equally applied to other development schemes.

The assessment has been completed using a phased qualitative assessment methodology, as outlined here:

- Cultural heritage assets with the potential to be affected by the Development are identified and ascribed a 'value', ranging from 'unknown' to 'very high';
- The 'magnitude' of any effects resulting from the Development upon the identified receptors are established, ranging from 'no change' to 'major' (assuming no mitigation is in place);
- A comparison of the magnitude of effect and receptor value is used to calculate the significance of effect;
- Where relevant, the mitigation strategy used is described, with the significance of effect re-calculated (assuming that mitigation is in place) to ascertain the residual effects.

Effects to cultural heritage assets can result from both direct and indirect effects. Direct effects are considered here to be those that result in an immediate, physical impact to an asset, such as ground disturbance. Indirect effects are considered here to include those that occur through an environmental pathway (e.g. air, waterways, and groundwater) or that are secondary (e.g. mitigation measures for a different impact affecting cultural

heritage). These indirect effects may be physical but may also affect the setting of an asset. Indirect effects can include, but are not limited to:

- Noise effects;
- Air pollution/dust effects; and
- Visual effects.

Consultation with other specialists, in particular air quality, noise and landscape and visual, have been undertaken to capture combined effects and provide a holistic assessment of impacts upon cultural heritage assets.

### 9.3.2 Assessment of the Value of Cultural Heritage Assets

The value of a cultural heritage asset can be assessed using the criteria presented in Table 9.2.

**Table 9.2: Criteria for Assessing the Value of Cultural Heritage Assets**

Value of Asset	Criteria
Very High	<ul style="list-style-type: none"> <li>■ World Heritage Sites (including nominated sites);</li> <li>■ Assets of acknowledged international importance; and</li> <li>■ Assets that can contribute significantly to acknowledged international research objectives.</li> </ul>
High	<ul style="list-style-type: none"> <li>■ Protected Assets (e.g. assets inscribed on the RMP, RHP or RPS);</li> <li>■ Undesignated assets of recognised quality or importance (e.g. proposed for inclusion on the RMP, ACAs); and</li> <li>■ Assets that can contribute significantly to acknowledged national research objectives.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>■ Undesignated assets of regional importance or that might contribute to regional research objectives.</li> </ul>
Low	<ul style="list-style-type: none"> <li>■ Undesignated assets of local importance;</li> <li>■ Assets compromised by poor preservation and/or poor survival of contextual associations; and</li> <li>■ Assets of limited value, but with potential to contribute to local research objectives.</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>■ Assets with very little or no surviving cultural interest.</li> </ul>
Unknown	<ul style="list-style-type: none"> <li>■ The importance of the asset cannot be ascertained.</li> </ul>

### 9.3.3 Assessment of Magnitude of Effect

The scale and magnitude of effects on cultural heritage assets can be assessed using the tiered grading system presented in Table 9.3.

**Table 9.3: Criteria for Assessing Magnitude of Effect on Cultural Heritage Assets**

Magnitude of Effect	Criteria
High	<ul style="list-style-type: none"> <li>■ Changes to most or all key archaeological/architectural elements, such that the asset is totally altered; and</li> <li>■ Comprehensive changes to setting.</li> </ul>
Medium	<ul style="list-style-type: none"> <li>■ Changes to many key archaeological/architectural elements, such that the asset is clearly modified; and</li> <li>■ Considerable changes to setting.</li> </ul>



Magnitude of Effect	Criteria
Low	<ul style="list-style-type: none"> <li>Changes to key archaeological/architectural elements, such that the asset is slightly altered; and</li> <li>Slight changes to setting.</li> </ul>
Negligible	<ul style="list-style-type: none"> <li>Very minor changes to elements or setting; and</li> <li>Archaeological receptors are altered but no information is lost (through archaeological excavation and recording).</li> </ul>
No change	<ul style="list-style-type: none"> <li>No change.</li> </ul>

### 9.3.4 Assessment of Significance of Effects

Using the value of an asset as indicated in Table 9.2, and the magnitude of effect as ascertained from Table 9.3, Table 9.4 indicates how the assessment of the significance of an effect has been concluded.

**Table 9.4: Significance of Effect Matrix**

		MAGNITUDE OF EFFECT				
		No change	Negligible	Low	Medium	High
VALUE OF ASSET	Very High	Imperceptible	Slight	Moderate/ Significant	Significant/ Profound	Profound
	High	Imperceptible	Slight	Slight/ Moderate	Moderate/ Significant	Significant/ Profound
	Medium	Imperceptible	Not Significant	Slight	Moderate	Moderate/ Significant
	Low	Imperceptible	Not Significant	Not Significant	Slight	Slight/ Moderate
	Negligible	Imperceptible	Imperceptible	Not Significant	Not Significant	Slight

The methodology outlined in this section is reliant on an element of subjectivity, and so inherently requires a level of professional judgement. It is considered, however, that the criteria described in Table 9.2 and Table 9.3 provide robust and transparent decision-making guidance that can be widely applied to a variety of potential cultural heritage assets.

### 9.3.5 Assumptions and Limitations

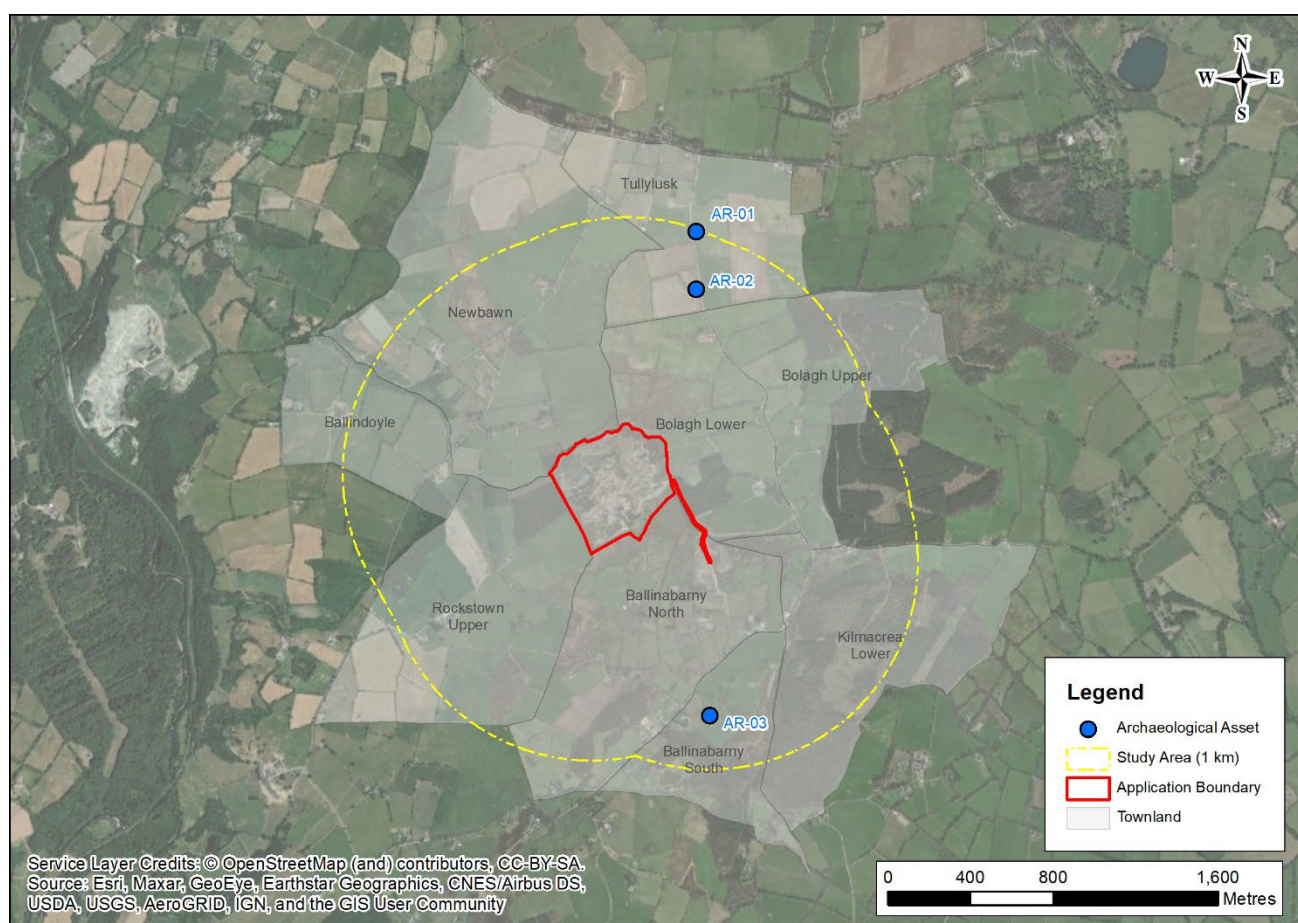
A key limitation is that the assessment methodology cannot account for cultural heritage assets that are not recorded in the available data sources. Previously unrecorded assets, such as sub-surface archaeological remains, which do not present any diagnostic features, would not necessarily be identified by the desk-study.

Information has been used from a range of sources to determine baseline cultural heritage conditions. This assessment is therefore limited by the availability and reliability of these data sources.

## 9.4 Baseline Conditions

The results of the baseline study are presented here as a summarised appraisal of the various disparate data sources. They have been separated into archaeological and architectural assets. For ease of reference, each asset has been assigned a unique ID reference comprising a two-letter prefix ('AR' for archaeological assets and 'BU' for architectural assets, where identified), followed by a sequentially increasing number. This allows information from different datasets, each with their own reference systems, to be collated into a single receptor list. The results are presented in Figure 9.1.





**Figure 9.1: Study Area and Cultural Heritage Assets**

### 9.4.1 Data Sources

The baseline study comprised a comprehensive desk-based review of existing, remotely available heritage datasets within the Study Area, which has allowed a good understanding of the baseline cultural heritage conditions at and around the Site to be established. Sources of information consulted include:

- The Sites and Monuments Record (SMR), compiled and maintained by the Archaeological Survey of Ireland (ASI) unit of the NMS, for details regarding all known monuments and sites<sup>4</sup>;
- The NIAH Building<sup>4</sup> and Garden<sup>5</sup> Surveys, for details regarding buildings, structures, demesnes, designed landscapes and historic gardens of architectural importance;
- The RMP, compiled and maintained by the NMS, for details regarding protected sites;
- The NMS for details regarding national monuments in State care (ownership or guardianship of the Housing, Local Government and Heritage) and for monuments subject to Preservation Orders;
- The Wicklow County Development Plan (2016-2022) for details regarding the county's RHM, RPS, national monuments in State care (ownership or guardianship of the Local Authority), monuments subject to Preservation Orders, ACAs and AAPs;

<sup>4</sup> The SMR and NIAH Building Survey datasets are available in a downloadable Geographical Information System (GIS) format.

<sup>5</sup> The NIAH Garden survey is a work in progress. The desk-based survey (Phases 1 and 2) has been completed, but the field survey (Phase 3) remains incomplete. A policy framework and method of protection remains to be determined.

- UNESCO for details regarding inscribed and tentative World Heritage Sites;
- The topographical files of the National Museum of Ireland (NMI) for details of any finds held in the national archive relevant to the Site;
- The SMR, Excavations Bulletin, and Transport Infrastructure Ireland Digital Heritage Collection for details of previous excavations;
- Ordnance Survey Ireland for historic cartographic and aerial image sources, in order to conduct a map regression;
- Pre-existing environmental reports containing information pertinent to the historic environment of the Site; and
- Modern online aerial image sources (e.g., Google Earth, Bing Maps).

## 9.4.2 Archaeological Heritage

### Sites and Monuments Record and the Record of Monuments and Places

There are three archaeological assets from the SMR recorded within the Study Area, as shown in Figure 9.1. None of these three assets are located within the Site. The details of all three assets are summarised in Table 9.5, with full details presented in the Cultural Heritage Gazetteer (Appendix 9.1).

All three assets within the Study Area are ringforts, with two to the north of the Site and one to the south. The three ringforts are seemingly aligned north-south, with a fourth ringfort further north (beyond the Study Area). These are discernible on aerial imagery, with features visible on the ground.

**Table 9.5: Archaeological Assets within Study Area**

Golder ID	SMR Ref	Easting (ITM95)	Northing (ITM95)	Asset Description	Included (or Proposed for Inclusion) on RMP	Distance to Site	Value
AR-01	WI030-013----	722540	687643	Rath - ringfort	Yes	987 m (north)	High
AR-02	WI030-020----	722540	687365	Rath - ringfort	Yes	731 m (north)	High
AR-03	WI035-010----	722608	685299	Rath - ringfort	Yes	835 m (south)	High

## Preservation Orders

None of the assets within the Study Area are subject to a Preservation Order. The nearest asset to the Site that is subject to a Preservation Order is ruined church (SMR ref: WI035-020001-) located in Kilmacoo, approximately 2.2 km to the south of the Site.

## National Monuments in State Care

A national monument is defined by the National Monuments Act, 1930 as an asset ‘the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto’. A National Monument in State Care is one in the ownership or guardianship of the Minister for Housing, Local Government and Heritage or a Local Authority.

The nearest National Monument in State care is the Ogham Stone in Castletimon (SMR ref: WI036-010----), located approximately 7.5 km east of the Site.

## Register of Historic Monuments

There is no RHM disclosed for WCC in the WCDP.

## Record of Protected Structures

None of the three archaeological assets recorded within the Study Area are listed on the WCC RPS.

## Areas of Archaeological Potential

The Site is not located within an AAP. The nearest AAP is the Ennisboyne AAP, located near Brittas, approximately 8.5 km east of the Site.

## World Heritage and the Tentative List

There are no World Heritage Sites recorded within the Study Area. The nearest World Heritage Site to the Site is Brú na Bóinne (Archaeological Ensemble of the Bend of the Boyne), located 87 km to the north. The Royal Sites of Ireland, comprising five individual sites in Ireland (Cashel, Dún Ailinne, the Hill of Uisneach, the Rathcroghan Complex and the Tara Complex) as well as Navan Fort in Northern Ireland (UK), is listed on the Tentative List for Ireland for consideration for inclusion on the World Heritage List. Dún Ailinne, the seat of the kings of Leinster, is located approximately 45 km northwest of the Site. Glendalough, located approximately 14 km northwest of the Site, is also listed on the Tentative List for Ireland, as part of the Early Medieval Monastic Sites.

## Topographical Files

A search was conducted of the topographical files archive at the NMI for all entries recorded in the 9 townlands that are within 0.5 km of the Site. The search returned a single entry, which related to a stone 'battle axe' discovered in 1941 in Newbawn. It was recorded as being found in an upland bog, with an accurate description of the findspot location provided (coordinates relative to the OS 6" map series). The perforated axehead measures approximately 14 cm in length and is made from a dark green igneous rock. The findspot is included in available online resources, specifically the National Museum of Ireland: Finds Database (2010), which indicates the findspot location as now being an agricultural field. No other entries were returned during the search.

### 9.4.3 Architectural Heritage

#### The National Inventory of Architectural Heritage

There are no architectural assets listed on the NIAH Building Survey that are recorded within the Study Area.

#### Architectural Conservation Areas

The Site is not within an ACA. The nearest ACA to the Site is the Rathdrum ACA, located approximately 3.7 km northwest of the Site.

### 9.4.4 Previous Studies and Archaeological Investigations

No archaeological investigations are recorded to have previously been conducted at the Site, and there are no recorded archaeological investigations within the Study Area. The closest archaeological investigation, recorded by the Excavations Bulletin ([www.excavations.ie](http://www.excavations.ie)), was undertaken in 1999 and is approximately 1.4 km to the north of the Site, although no remains of archaeological significance were identified.

The 'Archaeological Inventory of County Wicklow' was published in 1997 and identified the three assets recorded within the Study Area. Nothing was recorded within the Site by this inventory.

### 9.4.5 Historic Map Regression and Aerial Imagery

Historic mapping and aerial imagery for the Site is available from Ordnance Survey Ireland, including:

- 6 Inch Colour and Black & White – 1840;
- 25 Inch Black & White – 1897-1913;
- Aerial photography (colour) – 1993;
- Aerial photography (black and white - orthorectified) – 1995;
- Aerial photography (colour - orthorectified) – 2000;
- Aerial photography (colour - orthorectified) – 2004;
- Aerial photography (colour - orthorectified) – 2005;
- Aerial photography (colour - orthorectified) – 2009;
- Aerial photography (colour - orthorectified) – 2011;
- Aerial photography (colour - orthorectified) – 2015; and
- Aerial photography (colour - orthorectified) – 2021.

The 6" map, dating from the early- to mid-19<sup>th</sup> century, depicts the Site as largely undeveloped agricultural land within a wider rural landscape. The existing access track is shown largely as it exists today, and the modern-day field system and road layout is recognisable (albeit with removal of some field boundaries to form larger fields). A cluster of four buildings is shown centrally along the southern boundary of the Site. These are unlabelled but are assumed to be a farmhouse and attendant outbuildings. AR-01, AR-02 and AR-03 are all clearly shown, although they are not labelled.

The 25" map, dating from the turn of the 20<sup>th</sup> century, is equally recognisable when compared to modern aerial imagery and shows that the Site remained undeveloped throughout this period. The buildings remain along the southern area of the Site, but there is no indication of significant development at the Site or in the surrounding area. Unlike the earlier map, AR-02 is not depicted, although AR-01 and AR-03 are.

Aerial photography from 1993 is the next available imagery, which provides the first evidence of quarrying activity within the Site. The cluster of buildings remains in the southern area, with quarrying activity visible within the central area of the Site. The majority of the Site remains as undeveloped agricultural land at this time. In a field in the southeast of the Site, immediately adjacent the quarrying activity, a semi-circular feature is shown, which abuts the field boundary along its eastern side. This feature appears to be exposed sub-soil material with the overburden mounded in the centre and does not appear on any previous mapping. There is also no vegetation present, indicating this feature is a 'modern' stockpile.

Expansion of quarrying activity in all directions can be seen in available aerial imagery from 1995, with the central area and a wide strip extending to the northern boundary under extraction by 2000. At this time the northwest corner of the Site and the fields adjacent to the west, south and east boundaries remained undeveloped. Aerial imagery from 2004 documents the expansion into the northwest and western areas of the Site, with the land along the southeastern and eastern boundaries the only unextracted areas by 2009. This has remained the case up to 2021. Throughout this period, the surrounding landscape in the Study Area has remained predominantly rural, with a few additional residences being constructed, primarily as individual plots along existing roads.

#### **9.4.6 Undiscovered Archaeological Remains**

There are no known archaeological assets within the Site footprint, with known archaeology within the Study Area limited to three ringforts, all of which have distinguishable above-surface features. As such, it is considered

that the potential for undiscovered archaeological remains to have existed beneath the surface at the Site is low. It cannot, however, be entirely discounted.

## 9.5 Potential Effects

Using the assessment methodology described in Section 9.3, the effects of the Development upon cultural heritage assets between 1990 and the present have been assessed. Aerial imagery from 1993 has been used as the closest representation of baseline conditions in 1990 and is assumed to represent the maximum extent of the quarry at that time. Due to the nature of the Development (i.e. progressive quarrying), all effects have been considered as occurring during the operational phase (i.e. no discrete construction phase has been considered).

### 9.5.1 Operation Phase

As no known cultural heritage assets are recorded within the Site, quarrying activity within the Site boundary is not considered to have resulted in any direct impacts to known cultural heritage sites, either designated or non-designated. As the presence of previously undiscovered archaeological remains to exist beneath the surface cannot be discounted on the basis of the information available (although it is considered to be low), there is potential that the quarrying activity at the Site may have directly impacted any undiscovered archaeological remains that may have existed, or may continue to exist, within the Site.

The air quality and noise assessments indicate that no significant effects have occurred during the operation of the Site. As such, and given the relative distance of AR-01, AR-02 and AR-03 from the Site boundary, no indirect effects on the setting of cultural heritage assets within the wider Study Area are considered likely to have occurred as a result of air or noise emissions.

The landscape and visual assessment has identified a number of visual changes that have occurred during operation of the Site, which are considered to have affected the setting of the three cultural heritage assets in the wider Study Area. Given the low-lying nature of the Site and the extent of existing vegetation within the landscape, a negligible magnitude effect is considered to have occurred at these assets.

Table 9.6 presents the potential effects on cultural heritage assets during operation.

**Table 9.6: Potential Effects During Operation**

Asset	Description of Effect	Magnitude of Effect	Asset value	Significance of Effect (before mitigation)
AR-01	Slight changes to setting as a result of visual changes	Negligible	High	Slight adverse
AR-02	Slight changes to setting as a result of visual changes	Negligible	High	Slight adverse
AR-03	Slight changes to setting as a result of visual changes	Negligible	High	Slight adverse
Potential Undiscovered Archaeological Remains	Damage or loss of asset through quarrying activity	High	Very High	Profound adverse*

\*this is a conservative scenario, assuming in the worst-case that very high value archaeological remains did/do exist within the Site.



## 9.6 Mitigation and Monitoring

No specific mitigation measures have been enacted on-site with regards to cultural heritage assets.

## 9.7 Residual Effects

As no specific mitigation measures have been enacted on-site, residual effects are as presented in Table 9.6.

## 9.8 Cumulative Effects

Due to the nature of the Development and the likely effects described, potential cumulative effects would be limited to indirect effects to the setting of cultural heritage assets within the Study Area. As the landscape within the Study Area has remained relatively unchanged outside the Site, no cumulative effects upon cultural heritage assets are considered to have occurred.

## 9.9 Remedial Measures

No remedial measures are considered feasible to mitigate the residual effects that may have occurred to potentially undiscovered archaeological remains within the Site.

## 9.10 Summary and Conclusions

A retrospective impact assessment was required to determine the potential effects of quarrying activity at the quarry at Ballinabarny North and Bolagh Lower between 1990 and the present. A detailed desk-based assessment has been undertaken to determine the cultural heritage baseline conditions and a full retrospective impact assessment of the Development has been completed.

No known cultural heritage assets were identified within the Site and the potential for undiscovered archaeological remains to exist beneath the surface within the Site is considered to be low. The potential for undiscovered archaeological remains to exist at the Site cannot not be discounted, however. There are three cultural heritage assets, all archaeological, within the wider Study Area.

It is considered that, whilst no direct impacts to known cultural heritage assets have occurred, there is very limited potential for previously undiscovered archaeological remains to have been directly impacted by quarrying activities. Whilst considered unlikely based on the archaeological potential of the area, in the worst-case, any undiscovered archaeological remains that may have been present could have been of very high value and, as such, a potential profound adverse effect may have occurred.

Slight adverse effects are considered likely to have occurred to three cultural heritage assets outside the Site within the wider Study Area as a result of visual changes to setting.

## 9.11 References

- 1) Department of Arts, Heritage, Gaeltacht and the Islands, (1999). The Framework and Principles for the Protection of the Archaeological Heritage. Government of Ireland: Dublin.
- 2) Department of Arts, Heritage and the Gaeltacht, (2011). Architectural Heritage Protection: Guidelines for Planning Authorities. Government of Ireland: Dublin.
- 3) Environmental Protection Agency, (2022). Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR). Environmental Protection Agency: Ireland.
- 4) European Communities, (1999). Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions. European Communities: Luxembourg.
- 5) National Roads Authority, (no publication date). Guidelines for the Assessment of Archaeological Heritage Impacts of National Roads Schemes. National Roads Authority: Ireland.
- 6) National Roads Authority, (no publication date). Guidelines for the Assessment of Architectural Heritage Impacts of National Roads Schemes. National Roads Authority: Ireland.





**APPENDIX 9.1**

# Cultural Heritage Gazetteer



## CULTURAL HERITAGE GAZETTEER

### ARCHAEOLOGICAL ASSETS

WSP Golder ID	SMR Reference	Description	Easting (ITM)	Northing (ITM)	Townland	RMP	Sensitivity/Value
AR-01	WI030-013----	Ringfort - rath	722540	687643	TULLYLUSK	Yes	High
AR-02	WI030-020----	Ringfort - rath	722540	687365	TULLYLUSK	Yes	High
AR-03	WI035-010----	Ringfort - rath	722608	685299	BALLINABARNY SOUTH	Yes	High