# Maes Bach ESS

784-B068921



Archaeological and Heritage Desk-Based Assessment



**First Issue** 

**Net Zero Twenty Five Limited** 

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## **Table of contents**

1.0	Non-technical summary8
2.0	Introduction8
2.7	1 Aim and objectives8
3.0	Site location and conditions9
4.0	Methodology10
4.1	1 Sources consulted11
5.0	Planning policy context12
5.1	1 National legislation and guidance12
	Ancient Monuments and Archaeological Areas Act 197912
	Planning (Listed Buildings and Conservation Areas) Act, 199012
	Historic Environment (Wales) Act, 202312
	5.1.4 Planning Policy Wales, Chapter 6, Historic Environment 2024, Edition 1213
	Technical Advice Note 24-The Historic Environment, 201716
5.2	2 Local policy and guidance17
	Rhondda Cynon Taf Local Development Plan up to 2021 Adopted March 201117
6.0	Baseline data18
6.′	1 Designated heritage assets19
6.2	2 Archaeological and historic background21
	Archaeological background and non-designated heritage assets
	Prehistoric22
	Romano-British25
	Early Medieval Period26
	Medieval Period26
	Early Modern Period27
	Industrial Period28
TE TET	784-B068921

	Ur	nknown
6.3	3	Previous archaeological investigations and evaluation results
6.4	4	Portable Antiquities Scheme
7.0	La	Indscape characterisation33
7.1	1	Aerial photographs
7.2	2	LiDAR data
7.3	3	Historic Landscape Characterisation
8.0	Hi	storic mapping survey35
9.0	Si	te walkover survey36
10.0	He	eritage potential and impacts37
10	.1	Archaeological potential
10	.2	Designated heritage assets41
	То	omen y Clawdd (GM064)41
	Tr	eforest Textile Printers (24885)41
	Ho	oneywell Power Tools Testing Division (24884)41
	Fiv	ve Round Barrows on Garth Hill (GM107)41
	Cr	oss Ridge Dyke and Earthwork (GM452) and Garnedd Lwyd (GM462)42
11.0	Mi	tigation recommendations and conclusion42
11	.1	Designated heritage assets42
11	.2	Archaeological remains42
Refer	enc	ces44
	Le	gislation, policies, standards and guidance44
	Bil	bliography45
	Hi	storic maps, drawings and aerial photography48

# List of tables

Table 1: Archaeological time periods	18
Table 2: Summary of the potential, heritage value and anticipated magnitude	of impact for
known and unknown heritage assets	40

# **Appendices**

- Appendix A Site location plan
- Appendix B Assessment methodology
- Appendix C Site photographs
- Appendix D Planning policies
- Appendix E Recorded heritage assets
- Appendix F Historic mapping



# Acronyms/Abbreviations

Acronyms/Abbreviations	Definition
aOD	Ordnance Datum
CIfA	Chartered Institute for Archaeologists
CUCAP	Cambridge University Collection of Aerial Photography
DBA	Desk-Based Assessment
ESS	Energy Storage System
GGAT	Glamorgan-Gwent Archaeological Trust
HER	Historic Environment Record
LDP	Local Development Plan
Lidar	Laser Imaging, Detection and Ranging
NCAP	National Collection of Aerial Photography
NMP	National Mapping Programme
NRHE	National Record of the Historic Environment
OSGB NGR	Ordnance Survey National Grid reference system
RCAHMW	Royal Commission on the Ancient and Historical Monuments of Wales



# 1.0 Non-technical summary

This archaeological and heritage desk-based assessment has been prepared to support the consideration of this site for future development. This study examines the cultural heritage potential of the proposed development site and the surrounding areas. The site was found to contain potential for previously unrecorded archaeological remains relating to Post-medieval to Modern period activity in the area, associated with Maes Bach farmhouse (19270) and the industrial and coal mining activity near the ESS site, due to the known evidence found of the application site and surrounding areas. A programme of archaeological mitigation has been advised in the form of geophysical survey of the ESS site followed by a potential program of trial trenching or a watching brief on the basis of these results with any further archaeological work being undertaken in accordance with the standards and guidance from the Chartered Institute for Archaeologists, and a Written Scheme of Investigation agreed in advance with the Glamorgan-Gwent Archaeological Trust Archaeologist.

# 2.0 Introduction

This archaeological and heritage desk-based assessment has been prepared by Ola Zdral, (PCIfA), Archaeological Consultant, Tetra Tech, and Dr. Paul Tubb, Senior Heritage Consultant, on behalf of Net Zero Twenty Five Limited., as part of an application for temporary planning permission for a period of up to 40 years for the erection of an Energy Storage System (ESS), together with associated infrastructure, site levelling works, site access, landscaping and ancillary works on the site compound, including an associated cable route to the connection point. A full description of the proposed development can be found in the Planning Statement.

# 2.1 Aim and objectives

This report has been prepared in line with the Guide to Archaeology and Planning in South Wales (n.d.) and in respect of the guidelines established by CIfA (2020) Standard and Guidance for Desk-Based Assessment:

This DBA will determine, as far as is reasonably possible from existing records, the nature, extent and significance of the historic environment within a specified area. It will be

undertaken using appropriate methods and practices which satisfy the stated aims of the project, and which comply with the Code of Conduct and other relevant regulations of CIfA (2022, 2020). The DBA will establish the impact of the proposed development on the significance of the historic environment (or will identify the need for further evaluation to do so) and will enable reasoned proposals and decisions to be made whether to mitigate, offset or accept without further intervention that impact.

This study examines the cultural heritage potential of the proposed development site and the surrounding area. The aim of the study is to:

- Identify recorded cultural heritage sites within the site boundary and located nearby with settings and significance affected by the proposal;
- Identify the potential for previously unrecorded sites to be present within the site;
- Identify potential impacts and mitigation strategies where appropriate; and,
- Make recommendations for further work where required.

The historic environment (as defined by Planning Policy Wales 12, 2024) comprises all the surviving physical elements of previous human activity and illustrates how past generations have shaped the world around us. It is central to Wales's culture and its character, whilst contributing to our sense of place and identity. It enhances our quality of life, adds to regional and local distinctiveness and is an important economic and social asset.

This baseline assessment considers the heritage potential within the site itself, the surrounding area and wider local and regional context. In terms of its archaeological content, this assessment does not attempt to plot and review every archaeological find and monument; rather, it aims to examine the distribution of evidence and to use this to predict the archaeological potential of the study area and the likely impacts of the development proposals on those remains.

# 3.0 Site location and conditions

The application site is located at Llantwit Fardre, Upper Boat, Tonteg, Rhondda Cynon Taf, Wales, CF38 1SL. The site measures approximately 3.66 hectares, with the ESS site compound measuring 0.82 hectares. The site is centred on Ordnance Survey National Grid reference system (OSGB NGR) ST 10432 85658 and is characterised by arable land,

ranging from approximately 43m above Ordnance Datum (aOD) to 120m aOD. A site location plan can be seen in Appendix A.

The red line boundary of the site is an irregular area that includes the ESS site and carriageway/cable route, which is a section of the existing highway network that includes Maesmawr Road, Pound Farm Lane, and Tonteg Road (A473). To facilitate the description of the 'Site' and its surroundings, this DBA hereafter differentiates between the 'ESS Site' (the area where the ESS Compound will be located) and 'the carriageway/cable route' (that runs from the ESS site to the existing substation on Tonteg Road (A473)) to describe the remaining elements of the proposal. A site location plan can be seen in Appendix A.

The ESS site comprises a field of pastureland surrounded by hedges and trees, bordered on the east by Maes Bach farm. A solar farm lies to the south of the site, while the remaining edges are bordered by farmland. The cable route extends north, then east along the carriageway to the point of connection of the ESS.

The geology of the ESS site comprises of Grovesend Formation Sandstone. This is a sedimentary bedrock formed between 309.5 and 308 million years ago during the Carboniferous period. The cable route also runs through sections of Grovesend Formation, Mudstone, siltstone and sandstone and Brithdir Member sandstone. Superficial deposits overlying the ESS site comprise of Devensian Till and Diamicton. This is a sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period (NERC, 2024).

The soil of the ESS site is characterised by Soilscape 17: Slowly permeable seasonally wet acid loamy and clayey soils (Cranfield University, 2024).

# 4.0 Methodology

An impact assessment has been carried out through the consideration of baseline conditions in relation to the elements of the scheme that could cause cultural heritage impacts. Baseline conditions are defined as the existing environmental conditions and in applicable cases, the conditions that would develop in the future without the scheme. In accordance with best practice, this report assumes that the scheme will be constructed, although the use of the word 'will' in the text should not be taken to mean that implementation of the scheme is certain.

The DBA has been undertaken in line with the guidelines established by ClfA (2020). Tetra Tech has developed its own heritage evaluation and assessment method using a combination of the Welsh Government's criteria for scheduling monuments (Cadw, What is Scheduling, Annex 1), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgment is used in conjunction with these criteria to undertake the impact assessment. Assessment of significance will also be assessed using the principles outlined in Cadw's 2011 Conservation Principles for the sustainable management of the historic environment in Wales, in particular, the four heritage values and how they contribute to significance. The full assessment methodology is included as Appendix B.

# 4.1 Sources consulted

A study area of 1km around the application site has been examined to assess the nature of the surrounding cultural heritage sites and place the recorded assets within their local context. This study area was defined in consultation with the Heneb (GGAT) Historic Environment Record. This study has taken into consideration the historical and archaeological background of the area. The sources consulted were:

- Glamorgan-Gwent Archaeological Trust (GGAT) Historic Environment Record (HER);
- National Monument Record of Wales (NMRW);
- Pontypridd Local Studies Centre;
- Cadw for nationally designated sites;
- Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW);
- Local Planning Authority for designated and non-designated heritage assets;
- Aerial photographs Historic England Swindon archives, Cambridge University Collection of Aerial Photography (CUCAP) online database; the National Collection of Aerial Photography (NCAP) via Historic Environment Scotland; Britain from Above; and Google Earth;
- Historic mapping including Tithe maps and early Ordnance Survey; and,

• Secondary research including, previously completed archaeological reports for the surrounding area, regional research frameworks and grey literature and journal articles, as appropriate.

In addition to the above resources, a site walkover survey was undertaken on 19th September 2024 by Dr. Paul Tubb. Senior Heritage Consultant to assess the site for potential features of archaeological or historic interest, and suitability for mitigation measures.

# 5.0 Planning policy context

# 5.1 National legislation and guidance

## **Ancient Monuments and Archaeological Areas Act 1979**

Scheduled Monuments are designated by the Secretary of State for Culture, Media and Sport on the advice of Historic England as selective examples of nationally important archaeological remains. Under the terms of Part 1 Section 2 of the Ancient Monuments and Archaeological Areas Act 1979 it is an offence to damage, disturb or alter a Scheduled Monument either above or below ground without first obtaining permission from the Secretary of State. This Act does not allow for the protection of the setting of Scheduled Monuments.

## Planning (Listed Buildings and Conservation Areas) Act, 1990

The Act outlines the provisions for designation, control of works and enforcement measures relating to Listed Buildings and Conservation Areas. Section 66 of the Act states that the planning authority must have special regard to the desirability of preserving the setting of any Listed Building that may be affected by the grant of planning permission. Section 72 states that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of Conservation Areas.

## Historic Environment (Wales) Act, 2023

The Historic Environment (Wales) Act, 2023 amends aspects of the Ancient Monuments and Archaeological Areas Act (1979) and Planning (Listed Buildings and Conservation Areas) Act, 1990 strengthening the protection for Scheduled Monuments and Listed Buildings and streamlining the consent process. Further changes within the Act will require either

supplementary regulations or non-legislative preparations and these will be commenced and come into force by order of Welsh Ministers at an appropriate time. The further changes include a statutory register of parks and gardens, a statutory list of Welsh place names, and Heritage Partnership Agreements, amongst other measures (Welsh Government, 2016).

It is anticipated that this Act will come into force on the 4<sup>th</sup> November 2024. This legislation will repeal the current legislative framework for the protection of the Welsh historic environment, primarily the Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990 in Wales and replace the current framework with accessible and fully bilingual law for the historic environment of Wales (Cadw, 2024).

## Planning Policy Wales, Chapter 6, Historic Environment 2024, Edition 12

Planning Policy Wales, Chapter 6 sets out the policy with respect to the historic environment and planning. The policy outlines four key objectives of the Welsh Government for the preservation or enhancement of the historic environment and conservation areas, the protection of archaeological remains and the safeguarding of historic buildings. The policy contains guidance for local authorities to consider when developing local plans (Section 6.1).

Chapter 6 (Distinctive and Natural Places) includes section 6.1. This section contains advice on development control policies. If development is likely to impact upon archaeological remains the guidance stresses the need for early consultation between developers and planning authorities, plus the need for an archaeological assessment to be carried out early in the process. Where nationally important remains, whether scheduled or not, and their setting are adversely affected by proposed development there should be a presumption in favour of their preservation. Where important archaeological remains may exist, field evaluation can help to define the character and extent of the remains and so assist in identifying potential options for minimising or avoiding damage. In cases involving archaeological remains of lesser importance the planning authority will need to weigh the relative importance of the archaeology against other factors, including the need for the proposed development. Where it is not feasible to preserve remains, an acceptable alternative may be to arrange prior excavation and recording of archaeological remains and the publication of the results by means of granting planning permission subject to a negative condition.

Section 6.1.4 identifies The Ancient Monuments and Archaeological Areas Act 1979, Planning (Listed Buildings and Conservation Areas) Act 1990 and Historic Environment (Wales) Act 2016 as providing the legislative framework for the protection and sustainable management of the historic environment in Wales.

Section 6.1.5 establishes a commitment to planning system must take into account the Welsh Government's objectives to protect, conserve, promote and enhance the historic environment as a resource for the general well-being of present and future generations.

Section 6.1.6 establishes a series of heritage-related objectives for Welsh Government. These objectives relate to designated heritage:

- protect the Outstanding Universal Value of the World Heritage sites;
- conserve archaeological remains, both for their own sake and for their role in education, leisure and the economy;
- safeguard the character of historic buildings and manage change so that their special architectural and historic interest is preserved;
- preserve or enhance the character or appearance of conservation areas, whilst the same time helping them remain vibrant and prosperous;
- preserve the special interest of sites on the register of historic parks and gardens; and
- protect areas on the register of historic landscapes in Wales.

Section 6.1.7 stresses the importance of the planning system in protecting, conserving, and enhancing the significance of historic assets. This role includes consideration of the setting of an historic asset which might extend beyond its curtilage. Any change that impacts on an historic asset or its setting should be managed in a sensitive and sustainable way.

The responsibility of all stakeholders is stressed in conserving the historic environment: PPW states that it is the responsibility of all those with an interest in the planning system, including planning authorities, applicants, developers and communities, to appropriately care for the historic environment in their area (6.1.8). This section continues to assert that "*the protection, conservation and enhancement of historic assets is most effective when it is considered at the earliest stage of plan preparation or when designing new proposals*".

#### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment

Section 6.1.9 concludes that decisions made through the planning system must fully consider the impact on the historic environment and on the significance and heritage values of individual historic assets and their contribution to the character of place.

Specific sections address designated assets (Scheduled Monuments, Listed Buildings and Conservation Areas) and Historic Landscapes and World Heritage Sites (6.1.10 - 6.1.22). There should be a presumption in favour of the preservation of Listed Buildings and their setting with special regard to the desirability of preserving the features of special architectural and historic interest which they possess. Where possible the continuation or reinstatement of original building uses should be considered, however there should be flexibility to achieve an optimum viable use which is compatible with the character. Justification for alteration or demolition of Listed Buildings should be provided with applications. Conditions may be imposed for the recording of historic buildings. Justification for alteration or demolition of Listed Buildings should be provided with applications may be imposed for the recording of historic buildings.

There should be a presumption in favour of the preservation and enhancement of Conservation Areas and their setting with special regard to the desirability of preserving the features of special character or appearance of an area. When considering applications, the authority should consider the effect on the character or appearance from demolition, proposed development, advertisements, and trees. Article 4 directions can be made to withdraw specific development rights.

World Heritage Sites are a material consideration in determining applications and the impact of proposals on sites and their settings should be carefully considered. Parks and Gardens in the first part of the Register of Landscapes, Parks and Gardens of Special Historic Interest, and their settings, should be protected and effects on them or their setting may be a material consideration. Information on historic landscapes in the second part of the register should be considered when there would be more than a local impact on an area. Where a local planning authority has identified historic assets of local interest or produced a list of historic assets of special local interest and included a policy in its development plan for their preservation and enhancement, any supporting supplementary planning guidance will be a material consideration when determining a planning application.

Section 6.1.25 discusses the role of the planning system in dealing with undesignated assets, where planning authorities will need to weigh the relative importance of the archaeological

remains and their settings against other factors, including the need for the proposed development.

Section 6.1.26 refers to situations where archaeological remains are known to exist or there is a potential for them to survive, an application should be accompanied by sufficient information, through desk-based assessment and/or field evaluation, to allow a full understanding of the impact of the proposal on the significance of the remains.

Section 6.1.27 states that when a planning authority is minded to approve an application and where archaeological remains are affected by proposals that alter or destroy them, the planning authority must be satisfied that the developer has secured appropriate and satisfactory provision for their recording and investigation, followed by the analysis and publication of the results and the deposition of the resulting archive in an approved repository.

Planning Policy Wales is supplemented by Welsh Government Technical Advice Note 24: The Historic Environment (2017) (TAN 24).

## **Technical Advice Note 24-The Historic Environment, 2017**

TAN 24 provides guidance on how the planning system should consider the historic environment during both the preparation of development plans and decision-making for listed building consent application and planning application affecting the historic environment, including World Heritage Sites, Scheduled Monuments, Archaeological remains, Listed Buildings, Conservation Areas, Historic Parks and Gardens, Historic Landscapes and Historic Assets of special local interest.

TAN 24 states that a heritage impact statement must form part of any listed building consent and conservation area consent, whilst Design and Access Statements may be required for planning applications that could have an impact on historic assets. It also states that for any development within the setting of a historic asset, some of the factors to consider and weigh in the assessment include:

- the significance of the asset and the contribution the setting makes to that significance;
- the prominence of the historic asset;
- the expected lifespan of the proposed development;

- the extent of tree cover and its likely longevity; and
- non-visual factors affecting the setting of the historic asset such as noise.

## 5.2 Local policy and guidance

The application site is located within the district of Rhondda Cynon Taf Borough Council.

# Rhondda Cynon Taf Local Development Plan up to 2021 Adopted March 2011

The Planning and Compulsory Purchase Act 2004 requires Rhondda Cynon Taf County Borough Council to prepare a Local Development Plan (LDP) for the County Borough outside the Brecon Beacon National Park. The LDP will provide the development strategy and spatial policy framework for the LDP area over a fifteen-year period to 2021. The Plan will be used by the Council to guide and control development, providing a basis for consistent and appropriate decision-making. The northernmost part of the County Borough lies within the Brecon Beacons National Park. This area is subject to a separate development plan that is the responsibility of the National Park Authority.

Rhondda Cynon Taf County Borough Council are preparing a Revised Local Development Plan for the period of 2022 - 2037. This process formally began in April 2022. When finalised, this will replace the current LDP for Rhondda Cynon Taf (2006 – 2021). The current Plan will remain in force until the Revised Plan is adopted, which is projected to be in 2026 (Rhondda Cynon Taf County Borough Council, 2024).

In the meantime, for the application site, the current planning document is the saved policies of the Rhondda Cynon Taf Local Development Plan up to 2021 (Adopted March 2011), of which has one policy relating to archaeology and heritage:

• Policy AW 7 - Protection and Enhancement of the Built Environment

The full details of the above policies can be found in Appendix D.

# 6.0 Baseline data

## Table 1: Archaeological time periods

Period	Description	Date range
Palaeolithic and Mesolithic	The Palaeolithic is divided into the Lower, Middle and Upper Palaeolithic, and is characterised by hunting practices and flint tools. The Mesolithic is often characterised by the microlithic flint industry and a gradual move towards cultivation and domestics.	Up to 4,000 BCE
Neolithic	A period typically associated with the appearance of large ritual and ceremonial monuments in the landscape, and a reliance on cultivation practices and domestics, as well as the first appearance of pottery in the archaeological record.	4,000 BCE to 2,200 BCE
Bronze Age	The period is subdivided into the Early, Middle and Late Bronze Age, and is typically characterised by the appearance of bronze metalworking in the archaeological record, a change in domestic and ceremonial architecture, and increased agricultural activity and land management.	2,200 BCE to 700 BCE
Iron Age	The Iron Age is characterised by increasing evidence for land management and the use of iron, as well as defensive monuments such as hillforts and oppida. There is also increased evidence for continental influences in the pre-conquest period.	800/700 BCE to 43 CE
Romano- British	Traditionally, the Romano-British period begins with the Roman invasion in 43 CE and ends with the emperor Honorius directing Britain to see to its own defence in 410 CE. The period is characterised by military operations, the establishment of central civitates for instance, while on a regional scale, vernacular architecture and traditions persisted.	43 CE to c. 450 CE
Anglo- Saxon/ early medieval	Following the breakdown of Roman rule, incoming Angles and Saxons established a series of kingdoms in England, including Northumbria and Wessex. The earlier part of the period was associated with paganism, with the emergence of Christianity and establishment of the church from the 5 <sup>th</sup> century. By the 9 <sup>th</sup> century, the manorial system was widespread.	450 CE to 1066 CE
Later medieval	The later medieval period commences with the Norman Invasion and culminates with the Dissolution of the Monasteries. Following the conquest, castles were established as a sign of power, and often provided the focus	1066 CE to 1540 CE

	of royal and ecclesiastical centres. More and more marginal land was also exploited to support agriculture and expanded industry.	
Post- medieval	The post-medieval period is an age of transition between the medieval world and the Industrial and Agricultural revolutions of the 18 <sup>th</sup> and early 19 <sup>th</sup> century. The Dissolution of the Monasteries saw wholesale transfers of land into Royal and private hands, buildings were demolished, religious artefacts destroyed, and social life irrevocably altered, marking an abrupt end to the Middle Ages. The period is characterised by the expansion of economy and industry that contributed to the onset of industrialisation, although activity was typically centred on small workshops and 'cottage' industries. For many, ordinary life was disrupted by conflict culminating in the Civil Wars.	c. 1540 CE to 1750 CE
Industrial	The catalyst for the Industrial Revolution was steam and coal driven technology, and led to the establishment of large factories, foundries and works. The growing demand for resources such as coal also led to the establishment of canals to more effectively link mines to industrial centres, while the 'Turnpike Acts' allowed new roads to be established. By the 19 <sup>th</sup> century, the establishment of the railway further transformed the landscape, and as well as mineral resources, also carried passengers.	1750 CE to 1900 CE
Modern	Warfare is perhaps the most enduring image of 20 <sup>th</sup> century Britain, bringing about major economic and social changes, as well as defensive and commemorative structures. Extant military structures and defence landscapes survive in many parts of the country. Mass transport, the creation of a National Health Service, mass leisure and cultural life beyond an elite may also all be seen as factors shaping landscape and material culture in this period, as may mass migration, as part of the post-Imperial settlement.	1900 CE onwards

# 6.1 Designated heritage assets

A study area of 1km around the application site has been examined to assess the nature of the surrounding cultural heritage sites and place the recorded sites within their context. There is one Scheduled Ancient Monument, and two Grade II Listed Buildings within the study area. Details of the designated heritage assets can be seen in Appendix E and their locations are shown on Figure 2. Bracketed numbers within the text refer to the identifiers within the table and on Figure 2 in Appendix E.

The Scheduled Ancient Monument within the study area is Tomen y Clawdd (GM064), which is located 0.52km west of the cable route, and approximately 1.38km northeast of the ESS site. This includes the remains of a motte dated to the medieval period. The earthworks consist of a motte with steep sides and a circular, flat top. The site is located at the confluence of two streams, on high ground. The site may have marked the northern limit of Norman control in the region (Cadw, 2024).

Treforest Textile Printers lies 0.65km northeast of the ESS site (24885). It is recorded as Grade II Listed. This is a small factory, part of The South Wales and Monmouthshire Trading Estate, which was established at Treforest in 1936, the first of its kind in Wales (Cadw, 2024).

Honeywell Power Tools Testing Division lies 0.75km northeast of the ESS site (24884) and is also recorded as Grade II Listed. This is another small factory with walls of brick and render, part of the aforementioned Trading Estate (Cadw, 2024).

Outside the study area, there are a series of five Bronze Age barrows (GM107) located on Garth Hill approximately 2km southwest of the ESS site. Due to the high elevation of these scheduled ancient monuments, there is some potential for there to be intervisibility between the site and the monuments (Cadw, 2024).

Cross Ridge Dyke and Earthwork (GM452), lies approximately 4km northeast of the northernmost point of the cable route on Mynydd Meio, where the extensive earthwork comprises a linear bank and ditch running across an upland ridge. The tradition of cross ridge dyke building appears to roughly span a millennium, beginning in the Middle Bronze Age and lasting throughout the Iron Age (although perhaps with reuse and perhaps limited construction in the medieval period). They have been interpreted as territorial boundaries, defining areas of political influence (including internal territorial boundaries and land allotment within communities) and perhaps have ritual associations. Garnedd Lwyd (GM462), a similar distance from the ESS site and cable route, also lies on the Senghenydd hills. This comprises a burial cairn of probable Bronze Age date of national importance. As previously, these assets are situated on hilltops overlooking Pontypridd.

# 6.2 Archaeological and historic background

## Archaeological background and non-designated heritage assets

The Glamorgan-Gwent Archaeological Trust Historic Environment Record holds details for a total of thirty-nine recorded archaeological monuments and findspots (excluding designated assets), as well as eleven non-designated buildings and farms, and twenty archaeological events, within the 1km study area. The details of sites can be seen in Appendix E and on Figures 2, 3 and 4. The Rhondda Cynon Taf District Council does not currently maintain a local list.

The Glamorgan-Gwent Archaeological Trust Historic Environment Record also records the lines of tramlines, railway lines, and canals located within the study area.

The Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) was also consulted for any monuments recorded within the study area. This search recorded 36 monuments, three of which are duplicated within the HER results (GGAT01682.8s; 85408, GGAT01682.8s; 300137, GGAT01612m; 33507, GGAT01612m; 19273). Where duplicated, the HER reference number will be used.

Maes Bach farmhouse immediately east of the ESS site is recorded here (19270). This was derived from the moiety (part of an estate) sold of Maes Mawr acquired by Thomas Mathew by 1570 (Meisgyn and Glyrhondda, 2020).

The ESS site slightly intersects a series of events on land to the south of the ESS, on land recorded as Maes Bach Farm. These events comprised of a field visit (E007190), a desk-based assessment (E007189), and a watching brief (E005538) where nothing of archaeological significance was recorded. The cable route is intersected by the Church Village Bypass Scheme Environmental Statement site visit and report events (E003223, E003224). The cable route is also intercepted by an old trial level shown on Ordnance Survey mapping (GGAT07028m), and a Railway halt on the Great Western and Taff Valley railway between Llantrisant and Aberthaw (GGAT01570.4s). The line of the partially dismantled double track railway of the Taff Vale Railway Company is also recorded to cross the cable route (02766.0m), and so is the Taff Vale Railway (06422.0m).

The inventory of Historic Battlefields in Wales records seven battles within the study area, with no certain locations attributed. These are the battles of Bryn Owain/Stalling Down

(404863/545826); Llancarfan (545066); Llan Cwywan (545088); Rhiw Saeson (404868); Hirwaun Wrgan (545111); Ystradowain (404853). These all date to the Early Medieval – Medieval periods (Battlefields Wales, 2024).

## Prehistoric

Across Britain, the main evidence for the Palaeolithic period is stone tools, with evidence being most concentrated within the southern part of England, particularly in the regions of the Thames, Severn and Medway valleys. Sites are typically recognised from lithic scatters, often found within river gravels and terraces, as well as caves and rock shelters in some areas. The geography of known remains is often highly regionalised, as sediments from the period have often been destroyed or reworked by natural processes. Occupation evidence in southern Wales at this time is often concentrated in the carboniferous limestone bands stretching from Gower to Pembrokeshire, and in coastal areas. An example of the invaluable evidence found in caves lies in the Pontnewydd Cave (306687, Coflein 2024). Although this lies almost 200km north of the site, it contains some of the oldest dated hominid remains found in Wales. These comprise jaw fragments and teeth of Lower Palaeolithic early Neanderthals dating from c. 225,000 years ago. Also found were contemporary tools comprising hand axes, sharp Levallois-type flakes and scrapers (Coflein, 2024). However, there is a geographical bias towards sites and findspots on the present-day coastline and within caves, and generally very little evidence has been found from this period in South Wales (Walker, 2003, Glamorgan-Gwent Archaeological Trust, 2024a).

There is no recorded evidence from the Palaeolithic period within the study area.

Like the Palaeolithic period, the Mesolithic is characterised by ephemeral traces of activity; sites are principally recognised from concentrations of lithics, as the temporary settlements used by these communities left little other trace in the landscape. It is very rare to find in situ evidence for Mesolithic settlement sites. In many areas, evidence for Mesolithic activity has been highly dependent upon concentrations of archaeological fieldwork within particular parts of the landscape, and the visibility of material may have been impacted upon by coastal and sea-level changes. The Cynon valley was heavily forested during this period, as Wales emerged from the last Ice Age. The Rhondda uplands are an important archaeological area during this period. A number of Mesolithic flint tools have been found, including cores, blades, flakes, scrapers and microliths, often associated with charcoal from

#### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment

Cwm Saerbren, Mynydd Beili-glas, Mynydd Blaenrhondda, Nant Lluest, Mynydd Tyle-coch, Mynydd Ystradffernol, and the area of Maerdy Reservoir (Cynon Valley Museum, 2024a). Human and animal footprints of Mesolithic date have now been found on several sites in the Severn Estuary and in west and north Wales (Walker, 2022). Mesolithic settlements are also known at Craig y Llyn and at Mynydd Beili-glas. This indicates a considerable occupation of higher ground areas during this period (GGAT, 2024b). A carved wooden post, dated to the Late Mesolithic, was found at the 2012 at Maerdy Wind Farm, approximately 20km northwest of the site, and is a relatively unique find due to the organic nature of the site (Current Archaeology, 2013). There is no recorded evidence from the Mesolithic period within the study area.

The Neolithic was a period of increasingly permanent human occupation, although seasonal mobility and the exploitation of wild resources continued throughout the period. Mortuary monuments, along with the introduction of pottery, domesticates and arable farming practices mark the beginning of the Neolithic period, and the construction of large ceremonial monuments arguably marks a clear change in ideology from the preceding Mesolithic period. Common Neolithic ceremonial monuments in the region include chambered tombs and cairns, such as the western extremity of the Cotswold-Severn Long mounds, such as Cae-yr-Arfau (93016). Other common Neolithic ceremonial monuments in south Wales include stone and timber circles, with passage graves principally located within southwest and northern Wales. Archaeological evidence in this area is also concentrated in areas of higher ground (Cynon Valley Museum, 2024b). Flint tools are also well represented in this area, in forms such as petit tranchet and leaf shaped arrowheads. The stone axe also grew in importance at this time, gaining significance outside of its' utilitarian usage. A Neolithic serpentine jadeite stone axe-head was discovered ahead of the construction of Mynydd Bwlfa Wind Farm, approximately 23km north-east during a watching brief (10437m, E006026, Ibid.). There is no recorded evidence from the Neolithic period within the study area.

The Bronze Age is characterised by significant changes in material culture, and in domestic and ceremonial architecture. The introduction of bronze metalworking is traditionally associated with the appearance of Beaker culture. Mortuary ceremonies also change emphasis in this period, with a shift from the large communal complexes and inhumations of the Neolithic to individual cremations and round barrow cemeteries. Across Britain, the

Bronze Age is also associated with increased agricultural activity and enclosures, associated with improved cultivation techniques, particularly in the Middle and Late periods. This also includes evidence for clearance cairns, particularly in upland locations, which are traditionally associated with Bronze Age improvement of land for grazing or cultivation (Gwilt, 2003).

The most common prehistoric site in the surrounding area are the burial cairns of the Bronze Age. These features are numerous across Wales, and include Bachgen Carreg (SAM Gm 234), Carn-y-Pigwn (SAM Gm 372), Carn-y-wiwer (SAM Gm 323, GGAT, 2024). Although metalworking is the key development of the Bronze Age, lithics remain well represented throughout the area, in the form of characteristic Bronze Age long-tanged, and tanged and barbed arrowheads (Cynon Valley Museum 2024c). Much of the evidence from this period is recorded in the uplands of the Glamorgan-Gwent region. Cross Ridge Dyke and Earthwork (GM452), approximately 4km northeast of the connection route, is an extensive earthwork that includes a linear bank and ditch running across an upland ridge. It is thought this was built in the Middle Bronze Age and lasted into and throughout the Iron Age. These earthworks have been interpreted as territorial boundaries, defining areas of political influence, and may have ritual associations. Garnedd Lwyd (GM462), a similar distance from the site, also lies on the Senghenydd hills. This monument is a burial cairn of probable Bronze Age date, and of national importance. Further round barrows attributed to the Bronze Age lie on the top of Garth Hill (GM452), c. 2km south of the ESS site. There is no recorded evidence from the Bronze Age period within the study area.

By the Iron Age, the landscape saw increasing evidence for field systems and defended sites, and much stronger evidence for continental influences than earlier periods. The period is also marked by evidence for the appearance of iron technology in the archaeological record. Perhaps the most characteristic monument which appeared in the landscape of Britain during the Iron Age is the hillfort. These defended sites, often located on the edges of the natural plateaus and escarpments, may have originated in the late Bronze Age and some may have continued in use into the Roman period; however, relatively little excavation has been undertaken at these sites and therefore their individual histories are not always understood. Southern Wales was occupied at this time by the Silures tribe, a powerful tribe that occupied southeastern Wales (Ritchie, 2018). Their capital was potentially a hillfort situated at Llanmelin, although the archaeological evidence

for this is unclear, although a centralised township was established at nearby Venta Silurum (Caerwent) by the Romans (Russell, 2017, Aldhouse-Green, 2003). The Iron Age to Roman site of Hen Dre'r Mynydd (SAM Gm 101) is recorded as the largest undefended Iron Age settlement in south-east Wales and is located approximately 23km north-west of the proposed development, on the upper slopes of Mynydd Beili-glas. Excavations in 1921 revealed little material evidence apart from a small amount of iron and evidence of leather (GGAT, 2024b). There is no recorded evidence from the Iron Age within the study area.

## **Romano-British**

The Roman occupation of southern Wales began around 47 CE, but this was fiercely resisted by the powerful Silures that occupied the area, led by Caratacus, leader of the Trinovantes tribe. It is unclear whether this was a tribe or a federation (Evans, 2018). Accounts by Tacitus indicate that guerilla warfare tactics were very successfully used against the invading Romans (Tac. 12, 33,39, Ibid.). Caratacus was handed over to the Romans by Queen Cartimandua of the Brigantes tribe when he fled after an unsuccessful pitched battle near the river Medway in 50 CE (Russell, 2017).

It took until 90 CE for the Welsh native tribes to be defeated and fall under Roman rule. In the process of militarisation, the Romans built a network of straight roads across Wales to facilitate movement, and to connect the forts built across Wales as part of the military zone, which numbered over thirty (Johnson, 2024). There is thought to be a high level of continuity between Iron Age and Roman sites, as many hillforts and late prehistoric enclosures have been excavated, uncovering Roman pottery (Evans 2018, Seaman and Thomas 2020).

South-east Wales contains both a legionary fortress and a civitas-capital short distances apart in Carleon and Caerwent (Aldhouse-Green, 2003). Caerleon Roman Fortress (95647) is one of three permanent fortresses in Roman Wales, and before this an Iron Age hillfort. It also contains a bath complex, and one of the most complete amphitheatres in Britain. This fort was originally called Isca and established in about 75 CE as the base for the Second Augustan Legion. It lies 23km east of the site. Pen-y-Coedcae Roman Camp also lies within the surroundings of Pontypridd itself (2891), in addition to Cardiff Fortress 12km southeast of the site (301346). The surroundings of Caerleon and the previous fortress at Usk would have been surrounded by a territory in which to pasture animals, and gain other necessities such as firewood (Evans, 2018). The associated necessity of producing enough grain to

feed the army, potentially through a tribute of grain demanded of the local population, may have had the effect of intensifying farming in the area (Ibid.).

A findspot of Roman pottery (GGAT02780m) is recorded 0.95km south of the ESS site.

## **Early Medieval Period**

Our understanding of the Early Medieval period in this area is hampered by a lack of archaeological evidence (it appears Wales was very largely aceramic at this time [Arnold & Davies 2000, 168-9]) and reliance on documentary evidence written long after the period and for different purposes. The study area was part of the commote of Meisgyn in the cantref of Penychen in the petty kingdom of Glywysing. Glywysing merged at times during the pre-Norman period with Gwent to form the kingdom of Morgannwg (Glamorgan).

The firmest evidence available for the Early Medieval period in the locality relates to the early Welsh church. It is worth noting that Glamorgan, as a whole, has a significant number of early Christian sites dating from this period. The area appears to have been under the sphere of influence of the great monastic site founded by St Illtud, Llanilltud Fawr (Llantwit Major). The Church of St. Illtyd, St. Gwynno and St Dyfodwg (GGAT PRN 00607m) at Llantrisant was the mother church of Meisgyn commote (CADW Listed Building Database [23942]) and a decorated slab dating from the 7<sup>th</sup> to 9<sup>th</sup> centuries CE is located in the D-shaped graveyard (GGAT PRN 00607m; Evans 2003, 20, 30). It is probably significant that Llanilltud Faerdre (Llantwit Vardre), another site connected to St Illtud, lies nearby to the east; the Faerdre element of the name suggests that the church was closely associated with a maerdref, a secular, Royal administrative settlement (GGAT Historic Landscape Characterisation The Rhondda). The churchyard of St Illtyd's at Llantwit Fardre (GGAT PRN 00599m) furthermore, is also D-shaped, suggestive, along with its dedication, of a pre-Norman establishment (Evans 2003, 30)

## **Medieval Period**

The Anglo-Norman conquest of Glamorgan was a piecemeal process only really commencing after the battle of Brecon in 1093. Within a matter of a few years, Robert fitz Hamo was made lord of Glamorgan (Davies 2000, 34-5) but the commote of Meisgyn continued to be held by its native lords of Glamorgan by Welsh tenure "with royal liberty". Nevertheless, Norman rule in Meisgyn (and elsewhere in upland Glamorgan) was, effectively, nominal until the mid-thirteenth century.

### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment

The last native ruler of Meisgyn , Hywel ap Maredudd ap Caradog, united the commote with Glynrhondda, ousting his cousin Morgan ap Cadwallon and recreating the territory of Penychan. In 1246, however, the 6th Earl of Glamorgan, Richard de Clare, took the lordships of Meisgyn and Glynrhondda from Hywel, building the stone castle at Llantrisant (NPRN 93041) as a symbol of his control over the area. Presumably, the motte of Coed-y-Twr (Tomen-y- Clawwd) at Llantwit Fardre (NPRN 300137) was constructed at some time, during the native lordship of Meisgyn. Presumably the origin of Maes Mawr and Maes Bach lies in the "tref", township or manor associated with the motte at Tomen-y-Clawdd (Davies 2020a, 66), although there is no apparent survival of the strip fields in the current field boundaries of either Maesmawr or Maes Bach.

In 1316, Llewelyn Bren, lord of Senghennydd, rebelled following the death of Gilbert de Clare at Bannockburn and enjoyed the support of the local Glamorgan upland population (Stephenson 2019 149-151). It seems likely that Llantrisant Castle was destroyed during the revolt and was never rebuilt, with subsequent lords of Glamorgan making Caerphilly their principal base in that area.

The deteriorating climate in the first half of the 14<sup>th</sup> century had a major impact on Glamorgan, with rising sea levels, colder, wetter winters, shorter summers, and an associated, increased risk of famine. In 1349, the Black Death swept across Wales; no evidence from that first epidemic survives to record the impact on the study area but resentment and grievances amongst the Welsh against their English lords grew in the 14<sup>th</sup> century. This culminated in the revolt of Owain Glyn Dŵr, last prince of Wales, against the English lasting from 1400 to 1415. By June 1402 Owain Glyn Dŵr had seized Glamorgan and destroyed local symbols of English rule. In 1405, however, support for Owain began to crumble; he experienced a series of defeats in south-east Wales and, by 1406, Glamorgan was back in English hands.

## **Early Modern Period**

The Laws in Wales Acts of 1535 established the County of Glamorgan through the amalgamation of the Lordship of Glamorgan with the lordships of Gower and Kilvey; the area that had previously been the cantref of Gwynllwg was lost to Monmouthshire. With Wales finally incorporated with the English dominions, the administration of justice passed into the hands of the Crown.

By 1570, the homestead of Maesmawr had become the seat of the most important postmedieval family resident in Llantwit Fardre, a branch of the Mathew family of Castell y Mynach in Pentyrch. Now a ruin, this was a sixteenth-century two-storey hall-house with lateral chimney, enlarged in the seventeenth century by the addition of a rear wing with joining two-storey porch (Davies, 2020: 66). Maes Bach was part of the Maesmawr estate at this time.

The first reference to Maes Bach is in the will of Thomas Mathew of Maesmawr, proved on August 20<sup>th</sup>, 1635, wherein bequests were made to Rice Llewelyn and Thomas David John who were "tenants of Maesbach" (Davies, 2020: 69). Maes Bach is mentioned three years later in the 1638 Rental as "another part of Maes Mawr".

In 1650, a portion of the Maes Bach belonged to Humphrey Mathew, youngest son of Thomas of Maes Mawr, Humphrey had mortgaged a part of Maes Bach to John Morgan of Llantrisant and, in his will dated 7th July 1650, he left the moiety to his brother-in-law, George Morgan of Abergorci and Pwll y Myn as trustee, to discharge the mortgage of £124 and pay an annuity to his unmarried sister Ann Mathew. In 1653, Robert Mathew of Maes Mawr and George Morgan together sold the whole of Maes Bach to Henry Powell of Llantrisant for £600. By 1666/71 the freeholder was William Edmond David who bequeathed Maes Bach to his son Edmond in 1673. By 1695, Maes Bach amounted to 50 acres which were mortgaged by Edmond David in 1701 to George Howell of Bovil.

Edmond David bequeathed Maes Bach to his son William whose first recorded act in 1730 was to mortgage the farm for £120; at this point Maes Bach was still estimated to be 50 acres. The freehold of the farm descended through son, brothers and nieces during the 18<sup>th</sup> century, until James Jacob of New Park, Llantrisant, sold the farm to the Marquess of Bute in 1819 for £2647:4:0. The farm had been occupied by tenants since at least 1778.

## **Industrial Period**

The Bute estate's interest in Maes Bach must have been for its mineral potential. Coal had been dug and mined on the land since the 17<sup>th</sup> century at least. Edward Lhuyd in Parochialia 3 of 1699 notes coal is being excavated on the farm, and this is only likely to have increased in scale and production throughout the 18<sup>th</sup> century. At the start of the 19th century, scientific investigation began to indicate that the Glamorgan valleys were rich with coal deposits (Davies 1981, pp. 214-5). John Crichton-Stuart, 2<sup>nd</sup> Marquess of Bute (1793-

#### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment

1848) commissioned further surveys in 1817 and 1823–24 which showed that there were potentially huge profits to be made from the reserves, both from the coal sitting beneath Bute's own lands, but also from the coal under common lands in the region that Bute could claim through his feudal titles as well as acquiring land with the potential for coal measures (ibid, 215,217). Bute set about consolidating his rights and existing investments during the 1820s and 1830s, acquiring extensive rights to the coalfields in the process.(op.cit). Bute established and managed a few collieries directly but given the investment costs and attention they took up, generally preferred to lease out his coal fields and claim a royalty on the coal mined instead (ibid, 217-218) The lessees might be iron-masters, who used the coal in their own operations, or colliery owners who sold the coal on to industrial or domestic customers.(ibid, 241).

Maes Bach farmhouse and its landholdings are shown on a plan in a survey of Marquis of Bute's Glamorgan estates dated 1824. Drawn at a scale of 8 chains to 1 inch (1:6,336), it depicts the farmhouse with the current access from Maesmawr Road and the land divided into 21 fields separated by well-established hedges with standard trees in addition to two areas of woodland on the slope down to the Taff. Rhyd-yr-helyg is shown as an area of woodland and a single building, presumably the inn shown on the 1885 Ordnance Survey Six-Inch map.

Situated north-west of the inn, Rhyd-yr-helyg Colliery is shown on the 1873 Ordnance Survey 25-Inch map located 400m east of Maes Bach farmhouse with the engine house and head gear situated at OSGB NGR ST 10959 85738 at the foot of the stream issuing from near the ESS Site. This was a Thomas Booker owned mine (welshcoalmines.co.uk: Booker's mines in Pentyrch area) with a number of coke ovens, a second engine house, and a smithy, a ferry to the east bank of the Taff, a branch line and sidings off the Taff Vale Railway. The Taff Valley Railway section between Cardiff and Abercynon had been opened in October 1840; the Taff Vale Railway Act 1857 allowed for doubling of the line and later the line was quadrupled from Cardiff and Pontypridd, presumably at the expense of the Maes Bach woodlands. An inn is shown on the Ordnance Survey Six-Inch Map of 1885, located close to the ferry crossing point and presumably the Willowford Inn. By 1901, the revised Six-Inch map shows the mine as disused.

In 1924, Maes Bach farm was sold at auction as part of the disposal of the 4<sup>th</sup> Marquis of Bute's Glamorgan Estate along with other land and holdings in Llantwit Fardre including the

#### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment

Willowford Inn. The 4<sup>th</sup> Marquess, a Roman Catholic, donated the proceeds from the sale of his Glamorgan and Cardiff estates to support Franco's Nationalist forces in Spain as a reaction to the anti-clericalism of the Spanish Republican government and the so-called Spanish Red Terror (Beevor, 2006: 155).

The 1947 Ordnance Survey 25-inch map shows the Treforest Trading Estate on the opposite bank of the Taff to the disused colliery and Maes Bach. The South Wales and Monmouthshire Trading Estate at Treforest was established in 1936, as a result of the Special Areas (Development and Improvement) Act 1934 which aimed to give aid to the areas of Britain which had the highest unemployment rates in the 1930s (Thomas & Willis 2016, 121). It was the first such estate in Wales, as a government attempt to stimulate employment by introducing light manufacturing in the Rhondda which was then suffering from serious decline in the coal industry.

The origins of the Treforest Industrial Estate lie with the formation of the 'South Wales and Monmouthshire Trading Estates Ltd.' in June 1936. This was a non-profit making company whose aim was to establish one or more trading estates in Wales to diversify employment and to provide some alternative to the coal and steel industries, which were in decline. A plan dated August 1936 shows the proposed layout of the estate with the headworks of Rhyd-yr-helyg colliery clearly visible just above the Legend "Sites". By the end of 1937 three small factories were completed and occupied, employing 69 people. The first building contract awarded was in fact for a large factory for the British Coated Board and Paper Company Ltd later Wiggins Teape (Rhondda Cynon Taff County Borough Council 2018, 2018).

Working class, Welsh culture is evident in the number of non-conformist chapels in the area, including Salem Baptist Chapel (9708); Carmel Welsh Calvinistic Methodist Chapel (10159), and Nantgarw Wesleyan Methodist Chapel (14325); Salvation Army English Chapel (10154), Hawthorn English Wesleyan Methodist Church (10175), and Bethel English Baptist Church (14029). These congregations are a specific rejection of English authority in matters ecclesiastical, as manifested in the established Anglican Church in Wales, which paid little attention to the Welsh language, and which benefitted from Tithe apportionments. The Church in Wales was disestablished in 1914, by which time, the

chapel had become a place of learning, discourse, respectability and proletarian selfimprovement and was key to the Welsh cultural identity (cf. Thomas, 1954)<sup>1</sup>.

Thirteen assets are recorded as of post-medieval date within the study area. These are Maes-Mawr, a regional house (GGAT01612mc); Maes Mawr colliery and levels (GGAT07570mc); Two old trial levels (GGAT01612m, GGAT07568m); Tonteg Halt (GGAT06422.4m); A pond recorded on OS mapping (GGAT06422.4m); A potential river feature (GGAT11086m); Treforest Estate Halt Railway (GGAT06422.12m); Willow Ford (GGAT10970m); Tai-crib-lan Well (GGAT03784m); a trial shaft (GGcAT03785m); A breach in the Glamorganshire Canal (GGAT01682.8s); and post-medieval field systems (GGAT04813m).

There are also nineteen monuments recorded by the Royal Commission on the Ancient and Historical Monuments of Wales dated to the Post-Medieval Period. These are the Salem Baptist Chapel (9708); Salvation Army English Chapel (10154); Carmel Welsh Calvinistic Methodist Chapel (10159); Hawthorn English Wesleyan Methodist Church (10175); Bethel English Baptist Church (14029); Nantgarw Wesleyan Methodist Chapel (14325); Cae Odyn Filwr (18199); Fardre Isaf (18639); Gelli-Hirion (18742); Ty Maen (20181); Maesmawr Colliery Winding House (33507); Dynea Lock No. 34, Glamorganshire Canal (85390); Doctor's Canal (85391); River Taff Coal Ferry (91486); Foundry Bridge over Glamorganshire Canal (91489); Pont Maesmawr over Glamorganshire Canal (91490); Fairfield, Garden (265733); Rhyd-yr-Helyg Colliery (403673); and Ynys y Wern (417856).

There is one record dated to the eighteenth century. This is the Maes Bach farmhouse (19270).

Six records are dated to the 20<sup>th</sup> century. These are Treforest Industrial Estate (308269); Hawthorn Greyhound Racecourse (412836); Nantgarw Business Park (705204); Taff Business Centre (705303); Gelli Hirion Industrial Estate (705371); and Nantgarw Coal By-Products Works Gas Holder (710311).

There are eleven further modern features recorded within the study area. These comprise the Railway halt on the Great Western and Taff Valley railway (GGAT01570.4s) which intersects the site boundary near the roundabout; Structures depicted on OS mapping

<sup>&</sup>lt;sup>1</sup> It is night in the chill, squat chapel, hymning in bonnet and brooch and bombazine black, butterfly choker and bootlace bow, coughing like nannygoats, sucking mintoes, fortywinking hallelujah (Thomas, 1954: 2)

(GGAT07516m); A potential tank river feature (GGAT07516m); a series of breakwaters identified on historic OS mapping (GGAT11079m, GGAT11080m, GGAT11081m, GGAT11082m); An embankment, and a building also identified on historic mapping (GGAT11083m, GGAT11084m); and Two bridges (GGAT11085m, GGAT11475m) were also identified on the mapping.

Two records are dated to the modern period. These are the Alexon House (413721) and the South Wales Electric Company (415277). Finally, one point is recorded as of multiperiod date, the village of Upper Boat (417858).

## Unknown

There are eighteen features recorded within the study area as of unknown date, and there are two recorded as 'not applicable' due to being natural features. These are where GGAT Assessment Nantgarw to Margam A114 records two locations where peat has been recorded within the study area (GGAT02770m, GGAT02771m).

All unknown features are recorded as being identified as part of GGAT and Cadw's GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping. These comprise a ferry bridge (GGAT10968m); Two Inns (GGAT10969m, GGAT11584m); A quarry (GGAT10971m); a coal shaft (GGAT10972m); A footbridge (GGAT10973m); a building (GGAT10974m); A number of breakwaters (GGAT11048m, GGAT11049m, GGAT11050m, GGAT11051m, GGAT11052m); A well (GGAT11078m); A flood lock (GGAT11088m); and a mill (GGAT11477m); and a series of unknown features (GGAT11073m, GGAT11074m, GGAT11077m).

The Royal Commission on the Ancient and Historical Monuments of Wales records two assets as of unknown date. These are recorded as the Warren (1) and (2) (24499, 24500).

Considering the type of features, and the history of Pontypridd, it is likely that the majority of these features date to the post-medieval period onwards, but there is little information regarding these assets, making any assumptions of date uncertain.

# 6.3 Previous archaeological investigations and evaluation results

There are twenty previous records of archaeological investigation. Fifteen of these are recorded as desk-based assessments at a distance from the site.

The ESS site slightly intersects a series of archaeological events that lie on land to the south recorded as Maes Bach Farm. These events comprised of a field visit (E007190), a desk-based assessment (E007189), and a watching brief (E005538), where nothing of archaeological significance was recorded.

The cable route is intersected by the Church Village Bypass Scheme Environmental Statement site visit and report events (E003223, E003224). These identified that the remains of the dismantled railway would be directly affected by the development, as well as a number of identified historic boundaries/hedgerows.

A building recording is also located 0.88km northwest of the development (E004422).

# 6.4 Portable Antiquities Scheme

The Portable Antiquities Scheme Website was consulted for finds within the area of Maes Bach. The closest postcode to the centre of the proposed application site (CF38 1SL) was used to utilise the postcode search function. This search yielded one result, though results from a free search of 'Pontypridd' have also been included to provide a greater understanding of the archaeology within the wider area. The results can be viewed in Appendix E.

# 7.0 Landscape characterisation

# 7.1 Aerial photographs

Available aerial photographs were consulted on the National Library of Scotland, alongside Google Earth. There were no images of the site on the Cambridge Air Photos, or Britain from Above. The details of the aerial photographs viewed are listed in the references. With the exception of features previously recorded by the NMP, no further features of archaeological potential were noted.

The earliest aerial photograph recorded of the ESS site is an Air Photo Mosaic sheet (Air Photo Mosaic Sheet (1:10,560 scale): 31/18 N.W. / ST 18 N.W.) taken in 1949 by the RAF. This photograph shows the ESS site as agro-pastoral land, bordered by a narrow roadway to the west, a belt of vegetation to the south, and Maes Bach farm to the east. There is a linear feature immediately east of the ESS site running north, which may indicate a footpath through the site. The cable route is captured on an aerial photograph from 1947, where the

A473 has not yet been established. The land instead consists of fields, and where the route turns east, the industrial centre of Pontypridd.

Google Earth Pro was used to explore the development of the site over time. The 2001 aerial photography of the proposed ESS site shows little change in the interim between the photographs of the site through time, as the ESS site remains as arable land throughout. Maes Mawr Road, which the cable route traverses, has been slightly widened, as does the road to the north of the ESS site, and the dirt track immediately east has been formalised as a road. Maes Bach farmhouse to the east had also expanded, with several new buildings present. Significant drainage ditches leading to a central runnel were also visible. In 2009, the construction works that preceded the construction of the A473 are evident along the northern portion of the proposed development. The A473 is evident in 2013, connecting to Pound Farm Lane and Maes Mawr Lane, along which the cable route runs.

By photography from 2016, a solar farm had been established to the south of the ESS site, but no further changes are visible. No further changes are evident within, or in the immediate surroundings of the site until the present day.

No other previously unrecorded or potential archaeological features were identified.

# 7.2 LiDAR data

LiDAR coverage of the ESS site was accessed via the Environmental Agency and the composite dataset coverage of the proposed ESS site of the development was available at 1m spatial resolution, and the Digital Terrain Model (DTM) LiDAR tiles were viewed using ArcMap in order to use hill-shade analysis to bring out the detail of potential archaeological features. The data viewed is presented in Figure 6, Appendix E.

The LiDAR data for the ESS site shows that there are a series of drainage channels across the ESS site. One main drainage channel runs west to east, while the others run from north to south and connect to this central channel. A ridge also runs from north to south, indicating that the ESS site is very waterlogged and requires consistent drainage and management.

# 7.3 Historic Landscape Characterisation

Natural Resources Wales records the ESS site as historic landscape CYNONHL994, which is characterised as an aspect area dominated by an irregular fieldscape, that encloses a

series of isolated and dispersed post-medieval farmsteads. The boundary to the south is defined by the dismantled Llantrisant line of the Ely railway whilst the northern route of this line from Llantrisant to Church Village identifies the aspect area's western and northern limits (Natural Resources Wales, 2024).

The division of the dismantled Cwm Ely line north of Creigiau dissects the aspect area in two; the line heads to the west toward Llantrisant and to Church Village in the north. The eastern portion of this aspect area is bounded by the Unitary Authority boundary to the south, Pontypridd communication corridor (CynonHL977) to the east, and Llanilltud Faerdre (CynonHL284) to the north. Prehistoric activity is represented by the large Iron Age hillfort to the southwest of the aspect (Natural Resources Wales, 2024).

# 8.0 Historic mapping survey

A number of historical maps of the site were viewed online, including the 1844 Parish of Llantwit Vardre, County of Glamorgan tithe map. A Groundsure Report of Ordnance Survey maps was also obtained. The Groundsure Report for this site was provided in two parts, due to the size of the site. A selection of maps are presented in Appendix E. Due to copyright issues it has not been possible to reproduce all images here.

The 1824 Survey Map of the site was viewed in the Llantrisant and District Local History Society Journal (2020), where the ESS site and surrounding areas are recorded as agropastoral land which is part of the Maes Bach Farm.

The 1844 Plan of the Parish of Llantwit Vardre, County of Glamorgan (1 Inch to 8 Chains) (Howard) records the ESS site as meadowland. Maes Bach farmstead lies to the east of the ESS site. The plan shows no buildings or structures within the bounds of the site, and the boundaries of the site remain largely the same as those in the modern day. Much of the roadway that the proposed development will follow does not yet exist (Tithe Maps of Wales, 2024).

The OS County Series map of Glamorgan 1874-1875 shows the cable route to run north across agro-pastoral fieldscapes. The cable route crosses two railway lines, and then passes south-east into further fields near the Enys-y-wern farmstead. The cable route then runs south along Maes-Mawr road, and down to the ESS site. In the ESS site area, an east-west ditch is recorded, potentially used for drainage.

There are few visible changes on the available mapping until those visible on the OS County Series map of Glamorgan 1943-1948. On this mapping the cable route now intersects a third railway at the northern end of the proposed development. The area surrounding the development has developed significantly, with numerous buildings in the surrounding area such as the Treforest Trading Estate. The northernmost point of the route now connects to a building. The central section of the cable route continues to lie among fieldscapes, and along Maes-Mawr Road, with little change.

In the OS County Series map of Glamorgan (1965) the cable route now lies upon the roadway, but no further changes are visible at this level of detail.

The National Grid map of Glamorgan, 1974, only partially shows the ESS site. The southernmost railway of the two crossed by the site is now disused, and potentially dismantled. No other changes are evident within the bounds of the ESS site or cable route.

The National Grid Mapping depicts the new A743 roundabout, along which the cable route runs, but no other changes available at this level of detail.

The Tithe Award apportionments record one entry, presented in Table 1 below.

No.	Owner	Occupier	Names and Description of Land	State of Cultivation
968	-	Thomas Williams	Maes Bach	Meadow

# 9.0 Site walkover survey

A site walkover survey was undertaken on September 26<sup>th</sup> 2024 by Dr Paul C. Tubb, Senior Heritage Consultant, Tetra Tech. The weather was a combination of sunshine and showers, with a south-westerly breeze, a temperature of 13°C, with excellent visibility across the site.

The ESS site constitutes a field (Photos 2 & 4), currently laid down to grass bounded to north and west by hedges, to the south by a fence and the east by a fence replacing a former hedge. The northern hedge (H1) bounding the farm access to Maes Bach is composed of a substantial bank (1-2m wide, 0.75m high) with historically planted hedge. The structure of the hedge is dense and shows good evidence for management over a long period in the form of hedgelaying and coppicing. Shrubby plants include hazel (*Corylus avellana*), hawthorn (*Cratageus mono*gyna), holly (*Ilex aquifolium*) and Ash (*Fraxinus excelsior*). It seems likely that this hedge dates from before the Enclosure period and may

be contemporaneous with the construction of Maes Bach farmhouse at some point in the late 17th to early 18th century. The western hedge (H2) along Maesmawr Road has an equally dense structure of hawthorn (*Cratageus monogyna*), holly (*Ilex aquilfolium*), beech (*Fagus sylvatica*), and hazel (*Corylus avellana*) although may not be as old as H1. The ESS site boundary to the south is formed by the fence demarking the northern solar farm boundary. The eastern boundary to the east is a former hedge, apparently composed of beech (Fagus sylvatica), but now followed by a fence.

The topography of the ESS site drops from west to east with the northern and southern sides of the field sloping down to form a shallow gully in the approximate centre. I was informed by the current landowner that he had dug a series of field drains around 30 years ago which were still apparent on the field surface during survey. A raised track running across the eastern end of the site, composed of power station slag, runs from the current field gate to a gate on the southern, fenced boundary. A curving line of pedunculate oak trees (Photo 5) mark a former field boundary shown on the 1824 Bute survey the line of which is still followed by a ditch (Photo 3). The oaks show evidence of laying, indicating the former presence of a hedge.

There were no potential archaeological features or deposits identified during the walkover survey.

# 10.0Heritage potential and impacts

# **10.1 Archaeological potential**

The cable route is intercepted by an old trial level shown on Ordnance Survey mapping (GGAT07028m), and a Railway halt on the Great Western and Taff Valley railway between Llantrisant and Aberthaw (GGAT01570.4s). The line of the partially dismantled double track railway of the Taff Vale Railway Company is also recorded to cross the cable route (02766.0m), and so is the Taff Vale Railway (06422.0m).

Extensive works have previously been undertaken along the cable route, including embankment and levelling, and these works are considered very likely to have truncated, if not entirely removed any archaeological remains in this area. Additionally, the proposed works along the route between the ESS site and connectivity point are anticipated to be

minimally invasive. Therefore, it is not considered that assets would be impacted by the current proposed development.

The archaeological events recorded at Maes Bach farm prior to the solar farm (E007190, E007189, E005538) record that nothing of archaeological significance was discovered during the watching brief to the south of the site.

There is considered to be low potential for archaeological remains of Palaeolithic to Iron Age date to be present within the ESS site. Evidence for Palaeolithic activity is limited in this area of lowland southern Wales, although some sparse lithic finds are recorded. The Mesolithic is more well known, mostly from flint scatters. Most prehistoric evidence is limited to findspots from casual discoveries within the region, although none are recorded within the study area. No records within the study area are attributed to the Neolithic to Iron Age periods, and evidence from these periods is largely concentrated in upland areas.

There is considered to be a low potential for archaeological remains of Roman date to be present within the ESS site. There is only one findspot of pottery recorded by the GGHER. Pen-y-Coedcae Roman Camp also lies within the surroundings of Pontypridd (2891) outside the study area. In the wider area, Caerleon Roman Fortress (95647) lies 23km east of the site while Cardiff Fortress lies 12km southeast (301346). However, there is no evidence to support the idea that Roman remains would be present within the ESS site boundary.

There is considered to be a low potential for archaeological remains of early medieval and medieval date to be present within the ESS site. The early medieval period is still poorly understood and lacking archaeological evidence. Some evidence may be gleaned from place names. There are no assets recorded near the site from this date, nor is there other evidence indicating high levels of activity in the area.

There is considered to be a moderate potential for archaeological remains of post-medieval to Modern date to be present within the ESS site, with the evidence within the study area is generally limited to agricultural use, with much of the land remaining in this condition to the modern day. Maes Bach farmhouse east of the ESS site dates to this period, although the exact origin date of the building is unknown. There is also some evidence for coal mining in the area, as Rhyd-yr-Helyg Colliery lies east of the ESS site (403673). There is good cartographic coverage of the ESS site and cable route, showing that it has largely remained unchanged from at least 1844 onwards, with recent use being agricultural and largely

changed by the industrial flourishing of Pontypridd centre, as indicated by aerial photography. The surrounding areas were predominantly used for agricultural purposes to the south and west, with industrial and some coal mining activity towards the north-west from the Industrial period onwards. The archaeological potential and impacts at different sections within the ESS site and cable route is considered in more detail in the Table 2 below.

Potential Archaeology	Description and value	Magnitude of Impact
Previously unrecorded archaeological remains	There is a low to moderate potential for previously unrecorded archaeological remains and deposits; the application site is located in an archaeological landscape, and numerous remains have been found within the study area, including Post-medieval field systems, a colliery, a post-medieval farmstead, and post-medieval onwards activity in the form agricultural evidence. It is anticipated that previously unrecorded remains and deposits could include: Post-medieval to modern activity - generally in the form of agricultural activity and land management associated with the Maes Bach farmhouse, or mining activities associated with the Rhyd-yr-Helyg colliery. Where present, such features are likely to be of limited evidential value and local to regional interest depending on character and preservation.	The development proposals are likely to have up to a <b>low to</b> <b>moderate negative</b> magnitude of impact upon any remains present, depending on the location, preservation, character and extent of remains.

Table 2: Summary of the potential, heritage value and anticipated magnitude of impact for known and unknown heritage assets

# **10.2 Designated heritage assets**

# Tomen y Clawdd (GM064)

The Scheduled Ancient Monument within the study area is Tomen y Clawdd (GM064), 0.52km west of the route to the connection point, and 1.3km northwest of the ESS site. The asset comprises the remains of a motte dated to the medieval period. The earthworks consist of a motte with steep sides and a circular, flat top. The site is located at the confluence of two streams, on high ground. The site may have marked the northern limit of Norman control in the region (Cadw, 2024). The intervening landscape, with multiple rows of trees, and residential development, mean the development will have no impact upon the significance of the asset either materially or as a result of its setting.

# **Treforest Textile Printers (24885)**

Treforest Textile Printers lies 0.65km northeast of the ESS site (24885). It is recorded as Grade II Listed. This is a small factory, part of The South Wales and Monmouthshire Trading Estate, which was established at Treforest in 1936, the first of its kind in Wales (Cadw, 2024). The intervening embanked landscape and vegetation mean the development will have no impact upon the significance of the asset as a result of the setting.

# Honeywell Power Tools Testing Division (24884)

Honeywell Power Tools Testing Division lies 0.75km northeast of the ESS site (24884) and is also recorded as Grade II Listed. This is another small factory with walls of brick and render, part of the aforementioned Trading Estate (Cadw, 2024). The intervening embanked landscape and vegetation mean the development will have no impact upon the significance of the asset as a result of the setting.

# Five Round Barrows on Garth Hill (GM107)

Outside the study area, this series of five Bronze Age barrows (GM107) is located on Garth Hill approximately 2km southwest of the ESS site. Due to the high elevation of these scheduled ancient monuments, there is some potential for intervisibility between the site and the monuments (Cadw, 2024). Regarding the potential for some intervisibility and potential effects on setting, the proposed development is located against a backdrop of the industrial townscape of Pontypridd, and other industrialised centres, so will not introduce different character into the surrounding landscape. As a result, the proposed development is considered to cause no further change to the setting of the asset, or any material harm, which is results in a neutral significance of effect.

# Cross Ridge Dyke and Earthwork (GM452) and Garnedd Lwyd (GM462)

Cross Ridge Dyke and Earthwork (GM452) lies approximately 4km northeast of the site connection route, where the extensive earthwork comprises a linear bank and ditch running across an upland ridge. They have been interpreted as territorial boundaries, defining areas of political influence and perhaps have ritual associations.

Garnedd Lwyd (GM462), a similar distance from the ESS site, also lies on the Senghenydd hills. This comprises a burial cairn of probable Bronze Age date of national importance. As previously, these assets are situated on hilltops overlooking Pontypridd.

Regarding the potential for some intervisibility and potential effects on setting, the proposed development is located against a backdrop of the industrial townscape of Pontypridd, and other industrialised centres, so will not introduce different character into the surrounding landscape.

As a result, the proposed development is considered to cause no further change to the setting of the asset, or any material harm, which is results in a neutral significance of effect.

# 11.0 Mitigation recommendations and conclusion

# 11.1 Designated heritage assets

As discussed above, it is anticipated that the proposed development of an Energy Storage System (ESS), together with associated infrastructure, site levelling works, site access, landscaping and ancillary works, including an attached route to the connection point would cause no adverse effects to any of the three identified assets within the study area.

As stated previously, the location of this asset can be found on Figure 2 in Appendix E, with the details in the table in Appendix E.

# **11.2 Archaeological remains**

The potential for unrecorded archaeological remains is low to moderate, based on consideration of the number and proximity of assets within the study area, which are

### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment

predominantly from the post-medieval and Industrial period, and which are largely located away from the centre of the ESS site, concentrated near Pontypridd and Tonteg.

Should any archaeological remains be present, there is a potential for high levels of preservation, due to the waterlogged nature of the ESS site, and relatively undisturbed nature of the site divined from the earliest available modern mapping. It is recommended that a preliminary programme of geophysical survey is undertaken on the ESS site as a condition of planning permission to better understand any potential remains located within the ESS site, with a subsequent programme of trial trenching or a watching brief, as appropriate and if required, based on these results.

It is recommended that consultation is undertaken with the Glamorgan-Gwent Historic Environment Officer in the first instance, as this will guide the requirement for further archaeological work. Any further archaeological work should be undertaken in accordance with the standards and guidance from the Chartered Institute for Archaeologists, and a Written Scheme of Investigation agreed in advance with the Glamorgan-Gwent Historic Environment Officer.

Any further archaeological work should be undertaken in accordance with the standards and guidance from the Chartered Institute for Archaeologists, any requirements stipulated by the local authority, and a Written Scheme of Investigation agreed in advance with the Rhondda Cynon Taf County Borough Council Archaeologist. It is considered that a secured programme of archaeological investigation, recording and publication as a condition of any planning permission would satisfy the PPW 12 (2024) requirement for the significance of heritage assets to be lost (wholly or in part) to be recorded in a manner proportionate their importance and the impact, and to make this publicly accessible, and would further enable the significance of non-designated heritage assets within the site to be understood and hence balanced against the scale of loss. Assuming appropriate archaeological mitigation is secured, the proposal is also considered to comply with local policy.

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# Appendices

# Appendix A – Site location plan



# Appendix B – Assessment methodology

## Historic Environment Impact Assessment Methodology

Tetra Tech's evaluation and assessment criteria have been developed using a combination of the Secretary of State's criteria for Scheduling Monuments (Scheduled Monument Statement, Annex 1), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgement is used in conjunction with these criteria to undertake the impact assessment, as well as complimentary good practice guidance including Conservation Principles for the Sustainable Management of the Historic Environment in Wales (2011) and outlined in Technical Advice Note 24 (Evidential, Historical, Aesthetic and Communal).

## Value

The table below provides guidance on the assessment of significance for all types of heritage assets, including archaeological sites and monuments, historic buildings, historic landscapes and other types of historical site, such as battlefields, parks and gardens. The table considers both designated and non-designated heritage assets.

Value	Examples
Very High	World Heritage Sites, Scheduled Monuments of exceptional quality, or assets of acknowledged international importance or assets that can contribute to international research objectives. Grade I Listed Buildings and built heritage of exceptional quality. Grade I Registered Parks and Gardens and historic landscapes and townscapes of international sensitivity, or extremely well-preserved historic landscapes and townscapes with exceptional coherence, integrity, time-depth, or other critical factor(s).
National/ High	Scheduled Monuments, or assets of national quality and importance or assets that can contribute to national research objectives. Grade II* and Grade II Listed Buildings, Conservation Areas with very strong character and integrity, other built heritage that can be shown to have exceptional qualities in their fabric or historical association. Grade II* and II Registered Parks and Gardens, Registered Battlefields and historic landscapes and townscapes of outstanding interest, quality and importance, or well preserved and exhibiting considerable coherence, integrity time-depth or other critical factor(s).

### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment

Value	Examples
Regional/ Medium	Designated or undesignated assets of regional quality and importance that contribute to regional research objectives.
	Grade II Listed Buildings of modest preservation or integrity. Locally Listed Buildings, other Conservation Areas, historic buildings that can be shown to have good qualities in their fabric or historical association.
	Grade II Registered Parks and Gardens and Registered Battlefields of poorer preservation or integrity. Designated or undesignated special historic landscapes and townscapes with reasonable coherence, integrity, time-depth or other critical factor(s).
	Assets that form an important resource within the community, for educational or recreational purposes.
Local/ Low	Undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations but with potential to contribute to local research objectives. Historic (unlisted) buildings of modest quality in their fabric or historical association. Historic landscapes and townscapes with limited sensitivity or whose sensitivity is limited by poor preservation, historic integrity and/or poor survival of contextual associations. Assets that form a resource within the community with occasional utilisation for
Negligible	educational or recreational purposes. Assets with very little or no surviving cultural heritage interest. Buildings of no architectural or historical note. Landscapes and townscapes that are badly fragmented and the contextual associations are severely compromised or have little or no historical interest.

## Impact

The magnitude of the potential impact is assessed for each site or feature independently of its significance. Magnitude is determined by considering the predicted deviation from baseline conditions. The magnitude of impact categories are adapted from the Transport Assessment Guidance (TAG Unit 3.3.9) and Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07.

Impact	Typical Criteria Descriptors
Substantial	Impacts will act to damage or destroy cultural heritage assets; result in the loss of the asset and/or quality and integrity; cause severe damage to key characteristic features or elements; almost complete loss of setting and/or context of the asset. The assets integrity or setting is almost wholly destroyed or is severely compromised, such that the resource can no longer be appreciated or understood. (Negative). The proposals would remove or successfully mitigate existing damaging and discordant impacts on assets; allow for the restoration or enhancement of characteristic features; allow the substantial re-establishment of the integrity, understanding and setting for an area or group of features; halt rapid degradation and/or erosion of the heritage resource, safeguarding substantial elements of the heritage resource. (Positive).
Moderate	Substantial impact on the asset, but only partially affecting the integrity; partial loss of, or damage to, key characteristics, features or elements; substantially intrusive into the setting and/or would adversely impact upon the context of the asset; loss of the asset for community appreciation. The assets integrity or setting is damaged but not destroyed so understanding and appreciation is compromised. (Negative). Benefit to, or restoration of, key characteristics, features or elements; improvement of asset quality; degradation of the asset would be halted; the setting and/or context of the asset would be enhanced and understanding and appreciation is substantially improved; the asset would be bought into community use. (Positive).
Slight	Some measurable change in assets quality or vulnerability; minor loss of or alteration to, one (or maybe more) key characteristics, features or elements; change to the setting would not be overly intrusive or overly diminish the context; community use or understanding would be reduced. The assets integrity or setting is damaged but understanding and appreciation would only be diminished not compromised. (Negative). Minor benefit to, or partial restoration of, one (maybe more) key characteristics, features or elements; some beneficial impact on asset or a stabilisation of negative impacts; slight improvements to the context or setting of the site; community use or understanding and appreciation would be enhanced. (Positive).
Negligible / No Change	Very minor loss or detrimental alteration to one or more characteristics, features or elements. Minor changes to the setting or context of the site. No discernible change in baseline conditions (Negative). Very minor benefit to or positive addition of one or more characteristics, features or elements. Minor changes to the setting or context of the site No discernible change in baseline conditions. (Positive).

Magnitude (scale of change) is determined by considering the predicted deviation from baseline conditions. Quantifiable assessment of magnitude has been undertaken where possible. In cases where only qualitative assessment is possible, magnitude has been defined as fully as possible.

Any embedded mitigation is considered in the impact assessment and this is clearly described in this section (cross referring the development description). Therefore, the magnitude of the impacts described in the impact assessment will be considered stated before and after additional mitigation has been taken into account.

Impacts may be of the following nature and will be identified as such where relevant:

- Negative or Positive.
- Direct or indirect.
- Temporary or permanent.
- Short, medium or long term.
- Reversible or irreversible.
- Cumulative.

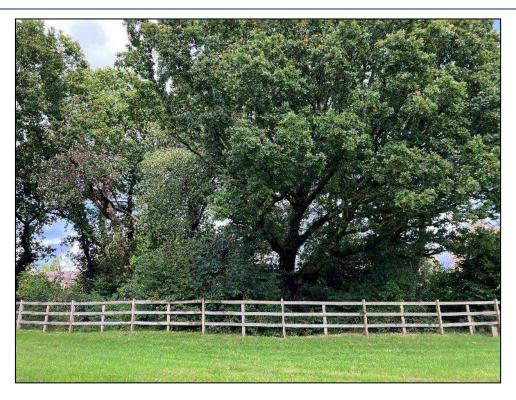
For the purpose of this Desk-Based Assessment, negligible negative impacts/no change are not considered to amount to any material harm to designated heritage assets. Moderate-slight negative impacts to designated heritage assets are considered to be 'less than substantial harm'. Substantial negative impacts are considered to amount to 'substantial harm' to designated heritage assets. These impacts are as defined in *Conservation Principles for the Sustainable Management of the Historic Environment in Wales* (2011) and Technical Advice Note 24 terms.

When considering development proposals that affect scheduled monuments or other nationally important archaeological remains, there should be a presumption in favour of their physical preservation in-situ. In cases involving less significant archaeological remains, local planning authorities will need to weigh the relative importance of the archaeological remains and their settings against other factors, including the need for the proposed development.

**Determining Significance of Effect on Cultural Heritage Sites** (Highways Agency (2007) Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07, Table 11.3)

Sensitivity of Receptor	Magnitude						
	Major	Moderate	Minor	Negligible	No change		
Very High	Very Large	Large / Very Large	Moderate / Large	Slight	Neutral		
High	Large / Very Large	Moderate / Large	Moderate / Slight	Slight	Neutral		
Medium	Moderate / Large	Moderate	Slight	Neutral / Slight	Neutral		
Low	Slight / Moderate	Slight	Neutral / Slight	Neutral / Slight	Neutral		
Negligible	Slight	Neutral / Slight	Neutral / Slight	Neutral	Neutral		

# Appendix C – Site photographs



Photograph 1: View of Coed-y-Twr (GM064)



Photograph 2: South facing view across the site.



Photograph 3: View south-east across the ditched boundary of the site, and solar farm.



Photograph 4: East facing view of site and Maes Bach Farm.



Photograph 5: West facing view of boundary between site and solar farm.



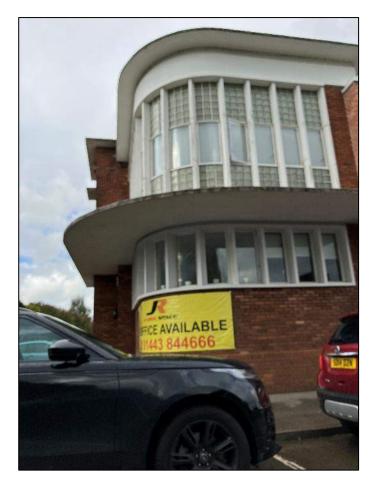
Photograph 6: East facing view of Maes Bach farm and sheep grazing on the site.

### Maes Bach ESS

#### Archaeological and Heritage Desk-Based Assessment



Photograph 7: West facing view of the site.



Photograph 8: Honeywell Power tools Testing Division (24884).





Photograph 9: Treforest Textile Printers (24885).

# Appendix D – Planning policies

## Rhondda Cynon Taf Local Development Plan up to 2021 Adopted March 2011

## Policy AW 7 – Protection and Enhancement of the Built Environment

Development proposals which impact upon sites of architectural and / or historical merit and sites of archaeological importance will only be permitted where it can be demonstrated that the proposal would preserve or enhance the character and appearance of the site. Development proposals which affect areas of public open space, allotments, public rights of way, bridleways and cycle tracks will only be permitted where it can be demonstrated that :-

1. There is a surplus of such facilities in the locality, or;

2. The loss can be replaced with an equivalent or greater provision in the immediate locality; or

3. The development enhances the existing facility.

# Appendix E – Recorded heritage assets

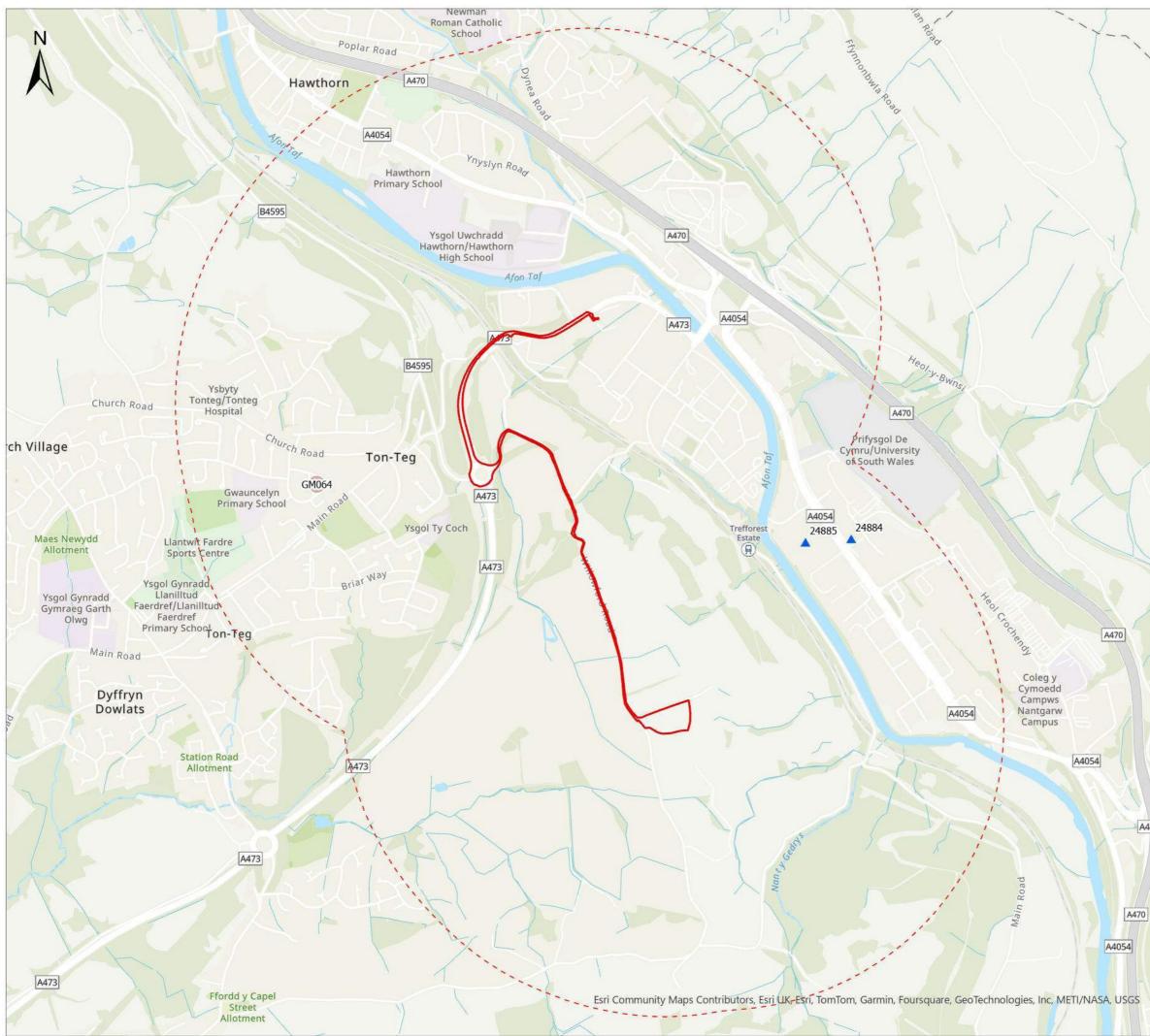
## Designated Heritage Sites (Cadw/Rhondda Cynon Taf County Borough Council Historic Environment Record)

Identifier	Record Type	Grid Reference	Description	Period		
Designated Heritage Assets						
GM064	Scheduled Ancient Monument	ST 09161 86476	Tomen y Clawdd The monument comprises the remains of a motte dating to the medieval period (c. 1066 - 1540 AD). Tomen y Clawdd is situated at the confluence of two streams on high ground on the edge of the uplands. The uplands were under Welsh control and this area may have marked the northern limit of Norman control in this region. This earthwork castle consists of a motte with steep sides with a circular, flat top. The ditch is boggy in places and may have originally held water. The monument is of national importance for its potential to enhance our knowledge of medieval defensive practices. The monument is well-preserved and an important relic of the medieval landscape. It retains significant archaeological potential, with a strong probability of the presence of both structural evidence and intact associated deposits.	Medieval		
24884	Grade II Listed Building	ST 11053 86285	Honeywell Power Tools Testing Division - A small factory comprising a fashionably modern 2- storey L-shaped entrance block with a range behind of 3 gabled bays. The walls are a mixed use of brick and render, with concrete detailing. Metal-framed windows incorporate lying panes. The entrance is within a higher and rounded corner bay which has a continuous window wrapped around in the lower storey, on the L side of which are double panelled doors with raised fields. A curved concrete canopy is above the entrance and lower storey, while the upper storey has full-height glazing with panels of frosted small-pane glazing above and below plate glass windows. Above it the parapet has a projecting concrete coping. A projecting higher brick stair tower is on the L side of the entrance. It has a porthole window in	Industrial		

#### Maes Bach ESS

Archaeological and Heritage Desk-Based Assessment

Identifier	Record Type	Grid Reference	Description	Period
24885	Grade II Listed Building	ST 10891 86273	the lower storey and tall narrow stair light above. On the L side is a rendered 2-storey wing, set back from the stair tower, with 2 bands of windows in each storey. On the R side of the corner bay is a projecting painted-brick 2-storey wing with similar bands of windows. The range behind has a corrugated asbestos-cement roof and the rear bay is hipped to the front. Treforest Textile Printers - A small factory comprising a fashionably modern L-shaped 2-storey entrance and administration wing in front of a wider 10-bay factory of asymmetrical bays. Both the front wing and factory are of brick, the front wing with concrete detailing, its roof concealed by plain parapets, and metal-framed windows incorporating pivoting lights. The main entrance is on the L side of the front and has replaced doors, and is within a single-storey projection wrapped around the angle and with full-height glazing. The upper storey also has a band of windows wrapped around the angle. In the L return wall is a porthole window below a plain stair light, beyond which are banded windows in both storeys. Projecting on the R side of the entrance is a narrow and higher rubble stone tower with window in its R side wall, further R of which is a 1-storey wing with banded windows. The R return wall has a similar window. On the R side of the front wing the factory range is wider, the first 5 bays having banded windows, then the rear 5 bays, which are a late addition, are further stepped out.	Industrial



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## Non-designated recorded heritage assets (Glamorgan-Gwent Historic Environment Record)

Identifier	Record Type	Description	Period		
Recorded Heritage Assets (by period)					
GGAT02780m	Findspot	Roman pottery finds.	Roman		
GGAT00598m	Motte	Minor fortification or abandoned castle site. The circular motte is 3.3m high with a flat top 21m in diameter. It is surrounded by a ditch 6m to 8m wide and 1.7m deep. The ditch has several minor mutilations and infillings.	Medieval		
GGAT10970m	Ford	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Post-Medieval		
GGAT11086m	Bridge	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Post-Medieval		
GGAT01612m	House	Regional house with lateral chimney and inside cross-passage.	Post-Medieval		
GGAT01682.8s	Canal	Breach in the Glamorganshire Canal at Pont y Glyn.	Post-Medieval		
GGAT03784m	Well	Well as noted on OS 6 inch 1st edition 1885 map. Not located in FE survey.	Post-Medieval		
GGAT03785m	Shaft	Trial shaft as noted on OS 6 inch 1st edition 1884 map.	Post-Medieval		
GGAT04813m	Field system	Field System of Post-Medieval date, identified from 1940s Aerial Photographs of the study area Ely and the Vale of Glamorgan. GGAT 48	Post-Medieval		
GGAT06422.12 m	Railway station	Treforest Estate Halt Railway, South Wales Passenger Railway, in use 1998 former taff vale railway	Post-Medieval		
GGAT06422.4m	Railway station	station on taff vale railway - see D.S.M. Barrie A Regional History of the Railways of Great Britain Volume 12 p145.	Post-Medieval		
GGAT07028m	Level	Old trial level shown on Ordnance Survey mapping.	Post-Medieval		
GGAT07517m	Pond	Pond shown on Ordnance Survey mapping.	Post-Medieval		
GGAT07568m	Level	Old trial level shown on Ordnance Survey mapping.	Post-Medieval		

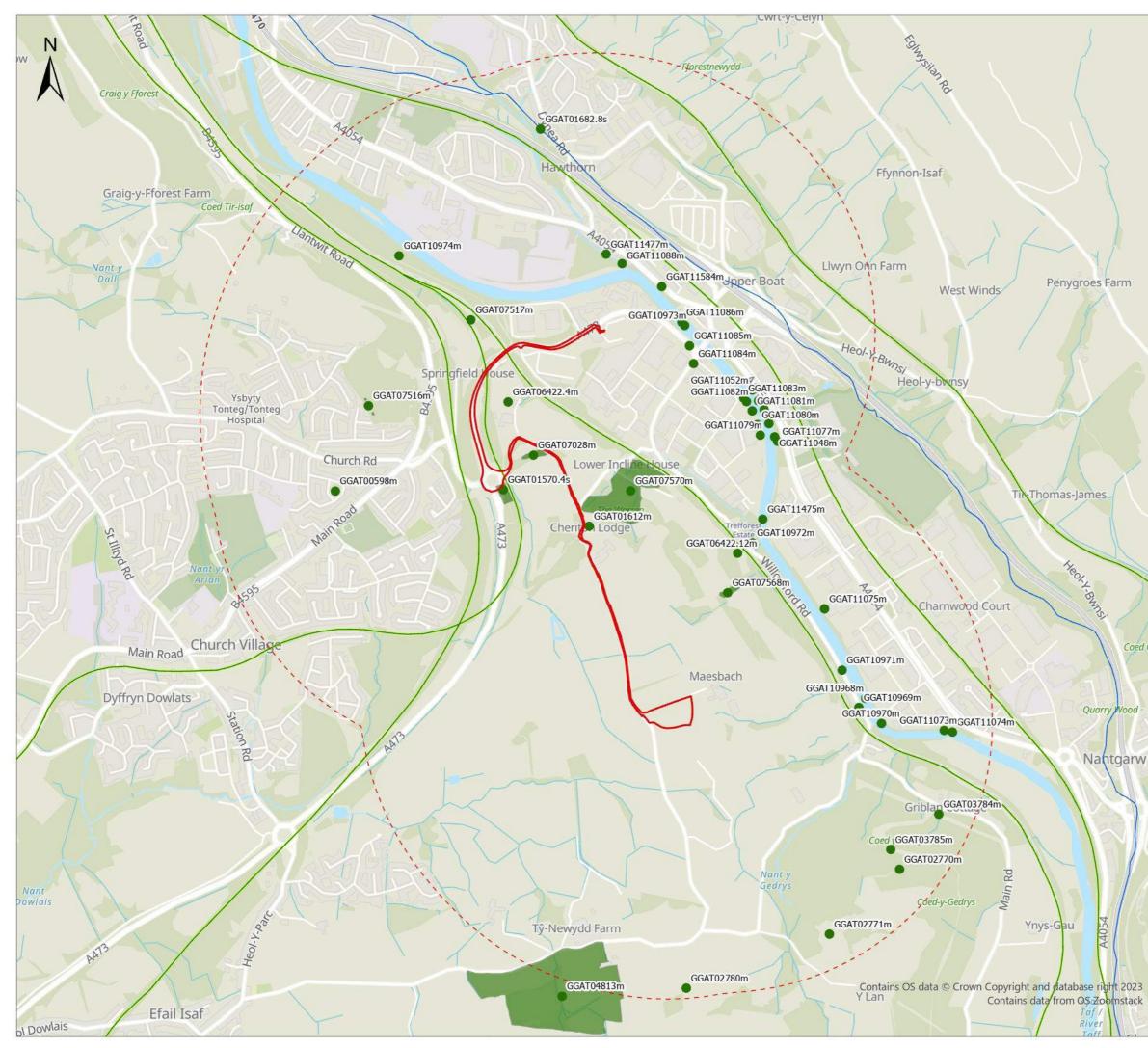
#### Maes Bach ESS

Archaeological and Heritage Desk-Based Assessment

Identifier	Record Type	Description	Period
GGAT07570m	Colliery	Maes-Mawr colliery & levels, visible on Ordnance Survey mapping.	Post-Medieval
GGAT01570.4s	Halt, Great Western and Taff Valley railway	Railway halt on the Great Western and Taff Valley railway between Llantrisant and Aberthaw through Cowbridge, closed in sections 1930-51.	Modern
GGAT07516m	Structure	Structures depicted on 4th edition Ordnance Survey mapping.	Modern
GGAT11075m	Tank	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11079m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11080m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11081m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11082m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11083m	Embankment	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11084m	Building	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11085m	Bridge	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT11475m	Bridge	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Modern
GGAT10968m	Ferry Bridge	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT10969m	Inn	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown

Identifier	Record Type	Description	Period
GGAT10971m	Quarry	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT10972m	Coal Shaft	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT10973m	Footbridge	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT10974m	Building	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11048m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11049m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11050m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11051m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11052m	Breakwater	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11073m	Unknown	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11074m	Unknown	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11077m	Unknown	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11078m	Well	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11088m	Flood Lock	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown

Identifier	Record Type	Description	Period
GGAT11477m	Mill	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT11584m	Inn	Potential river feature identified as part of GGAT and Cadw?s GGAT 160 Climate Change Adaptation Rivers and Riparian Environments project, visible on OS historic mapping.	Unknown
GGAT02770m	Natural feature	GGAT Assessment Nantgarw-margam A114 -Up to 1.5m depth of brown peat, overlying blue clay.	Not Applicable
GGAT02771m	Natural feature	GGAT Assessment Nantgarw-margam A114 -Up to 0.9m depth of peat. Profile recorded:0- 18cmVery dark brown to black (10 YR 2/1 - 2/2). Abundant roots, very poorly humified peat, lens of yellow sandy clay, buried turf. 18-35cmVery dark brown (10YR 2/2). Few r	Not Applicable



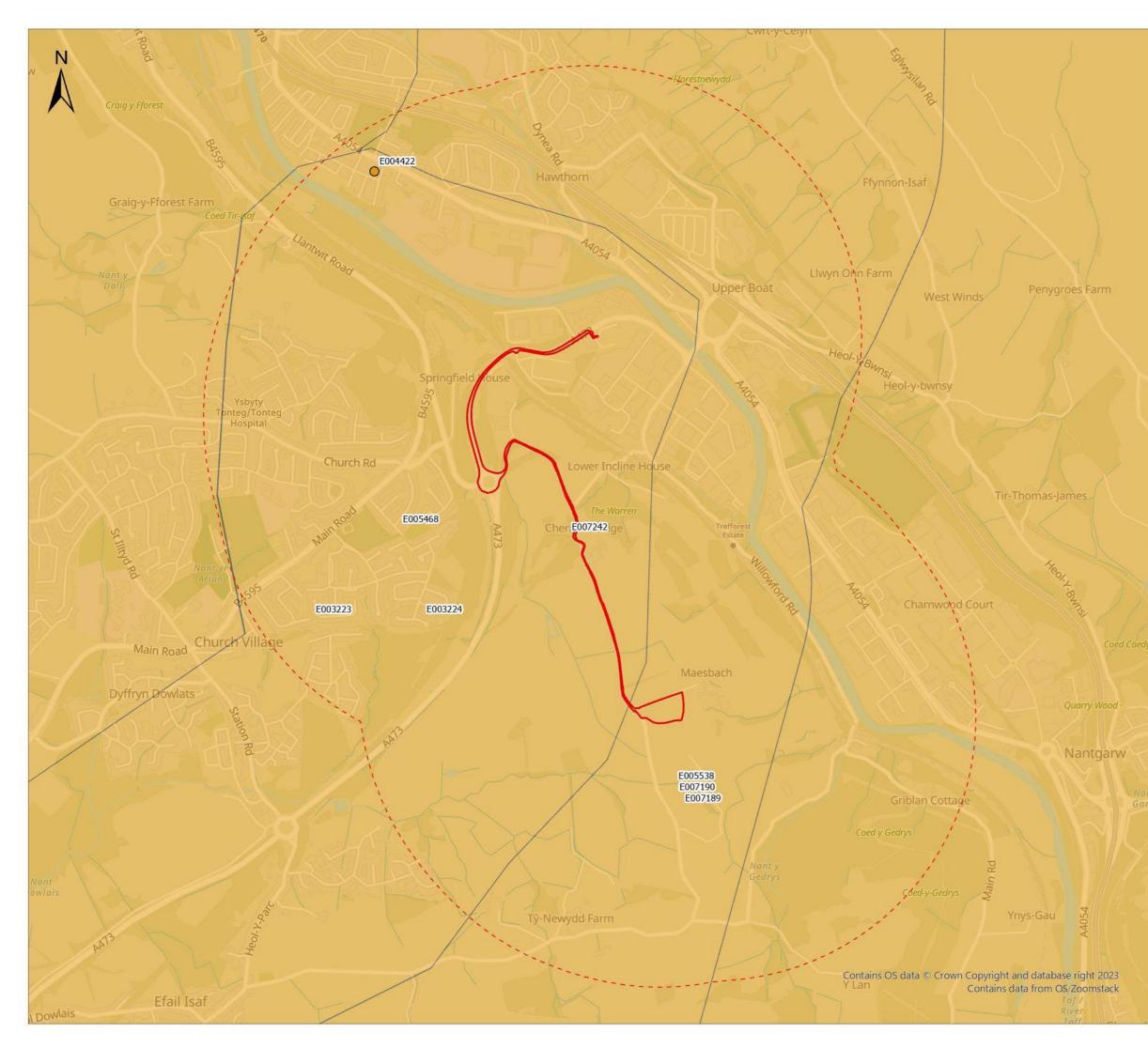
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### Recorded Archaeological Events (Glamorgan Gwent Historic Environment Record)

Ref	Location	Туре
GGATE004422	Alexon House, Rhydyfelin	Building Survey
GGATE007242	High Status Settlement in Glamorgan and Gwent	Desk-based assessment
GGATE007242	High Status Settlement in Glamorgan and Gwent	Desk-based assessment
GGATE007242	High Status Settlement in Glamorgan and Gwent	Desk-based assessment
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GGATE007242	High Status Settlement in Glamorgan and Gwent	Desk-based assessment
GGATE005468	Aberthaw to Upper Boat to Cilfynydd, Overhead Electricity Line (ZZB)	Desk-based assessment
GGATE005468	Aberthaw to Upper Boat to Cilfynydd, Overhead Electricity Line (ZZB)	Desk-based assessment
GGATE003223	Church Village Bypass Scheme ES (Cultural Heritage)	Environmental Statement
GGATE003224	Church Village Bypass Scheme ES (Cultural Heritage)	Field Visit
GGATE005538	Land at Maes Bach Farm, Tonteg, Pontypridd	Watching Brief

Ref	Location	Туре
GGATE007189	Land at Maes Back Farm, Tonteg, Pontypridd	Desk-based assessment
GGATE007190	Land at Maes Back Farm, Tonteg, Pontypridd	Field visit





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## Portable Antiquities Scheme

Record ID	Object Type	Description	Search Type	Period
DYFED- 0CD486	Socketed Axehead	Incomplete bronze socketed axehead. Slight corrosion and the loop is missing. The axehead is decorated with three parallel lines.	Free search- 'St Athan'	Bronze Age
NMGW- 6AF34D	Coin	Copper alloy radiate of Carausius in Britain (c. AD 286- 93). Pax standing left holding branch and vertical sceptre.	Postcode	Roman
NMGW- 6AD566	Brooch	An incomplete copper alloy brooch of Colchester derivative, Polden Hill type (Mackreth 2011). Dated between 1 <sup>st</sup> - early 2 <sup>nd</sup> century AD. Missing spring and fragmentary but it has been repaired.	Postcode	Roman
NMGW- 6AB3CC	Brooch	Incomplete and distorted copper alloy bow brooch of T- shaped type and of 1 <sup>st</sup> or 2 <sup>nd</sup> century AD.	Postcode	Roman
IARCH- 2C81D1	Hoard	'Boverton' "Twelve of the coins had either been lost or given away." Trans. Cardiff Naturalists Soc., XX (1888), 50 22 coins in NMW, Cardiff. The two lists of 26 and of 22 den., are here set alongside one another: Den. Den. Vespasian 2 2	Free search- 'St Athan'	Roman

Record ID	Object Type	Description	Search Type	Period
		Domitian 1		
		Nerva 2 2		
		Trajan 18 8		
		Hadrian 9		
		Sabina 1 1		
		Antoninus Pius 1		
		Faustina I 1		
IARCW-	Coin	A Denarius of Nero (54-68)	Free search- 'St Athan'	Roman
63DAF4B6				
IARCW-	Coin	A Denarius of Vespasian (69-79)	Free search- 'St Athan'	Roman
63DAF4B8				
IARCW-	Coin	A Denarius of Vespasian (69-79)	Free search- 'St Athan'	Roman
63DAF4BA				
IARCW-	Coin	A Denarius of Domitian (81-96)	Free search 'St Athan'	Roman
63DAF4BC				
NMGW-	Harness	Copper alloy harness pendant if 14 <sup>th</sup> century date. The	Free search 'St Athan'	Medieval
221453	Pendant	pendant is of shield-shaped form and is complete (with		
		an overall length of 34.8mm, a width of 18.8mm and a		
		weight of 3.9g) but it is missing the suspension mount.		
		The shield is heavily corroded but has the remnants of a		

Record ID	Object Type	Description	Search Type	Period
		heraldic device, seemingly a chevron across the mid part		
		of the shield with two crescents.		
		The Heraldic device is likely to be the Arms of		
		Berkerolles with estates across the Vale of Glamorgan,		
		including the castles at St Donats and Coity. In the		
		Church of Saint Tathan in St. Athan, Vale of Glamorgan		
		is the Tomb effigy of Katherine de Turberville and her		
		husband Sir Roger Berkerolles (d.1351). The shield		
		depicted with Roger Berkerolles on the effigy bears the		
		same Arms as this pendant		
NMGW-	Bodkin	Silver bodkin-type dress pin. The object is the lower shaft	Free search- 'St Athan'	Post-medieval
1DA363		and point, the lower end of the slot on the bodkin		
		survives, and it is likely that when complete it had a		
		perforation (eye) at one end.		



Legend	1		
	Site Boundary	25	5
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# Appendix F – Historic mapping



#### Archaeological and Heritage Desk-Based Assessment

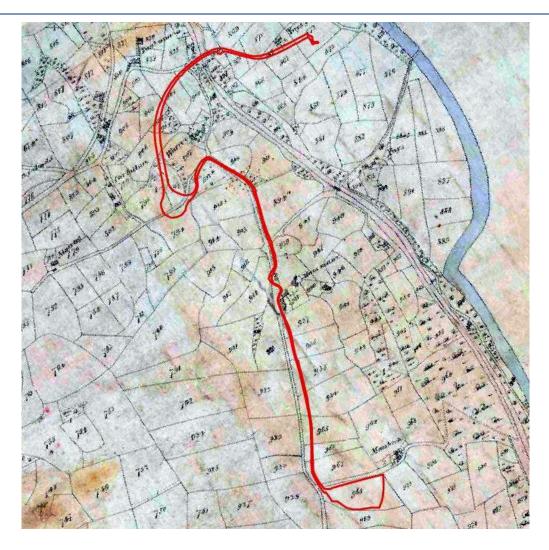


Plate 1: 1844 Plan of the Parish of Lantwit Vardre, County of Glamorgan. 1 inch to 8 chains.