

P22-145



MORFA MAWR, PORT TALBOT

Historic Environment Desk-Based Assessment

for Tata Steel

27/02/2023

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February 2023

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PROJECT INFORMATION:

HA JOB NO.	P22-145
NGR	277745 184350
PARISH	St Mary Margam Abbey
COUNCIL	Neath Port Talbot

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VERSION COMMENTS	Draft for Client Review



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NON-TECHNICAL SUMMARY

This report is an historic environment desk-based assessment (DBA) for a proposed sand extraction site at Morfa Mawr in Tata Steel Port Talbot Steelworks, Margam Moors, Neath Port Talbot, SA13 2BZ (NGR 277745 184350, nearest post code SA13 2PH). It has been prepared by Headland Archaeology (UK) Ltd on behalf of Tata Steel in support of a planning application to develop the site.

The DBA study area includes a 1km buffer surrounding the Proposed Development Area (PDA) for non-designated assets and a 5km buffer around the PDA for designated assets, within which the archaeological and historical development of the site and surrounding area is discussed. In accordance with national and local planning policy and guidance, the possible impacts that the proposed development could have on known and potential below-ground archaeological remains within the PDA, and the setting of historic assets is considered.

There are no designated assets located within the PDA boundary.

There are 115 designated assets located within the 5km study area. These comprise 17 Scheduled Ancient Monuments, eight grade I Listed buildings, 15 grade II Listed buildings, 73 grade II listed buildings, one Conservation Area and two Registered Parks and Gardens.*

There are three non-designated historic assets located recorded on the GGAT HER within the PDA:

- *A heavy anti-aircraft battery (GGAT02564m) adjacent to the southern extent of Area A;*
- *A tall rectangular two-storey concrete quadrant tower associated with RAF Stormy Down (GGAT07406m) within Area B; and*
- *Merthyr Mawr, Kenfig & Margam Burrows (HLW (MGI) 1), an Historic Landscape covering Area B and a small part of Area A.*

There are a further 47 non-designated assets located within the 1km study area. Of these, nine date to the Bronze Age, three to the prehistoric period as a whole, two to the Roman period, one Early Medieval, five Medieval, ten to the Post-Medieval period, nine are Modern, and eight are of unknown date.

A review of sources presented in this report demonstrates that there is:

- *A low potential for below ground archaeological remains to be present from the Palaeolithic to Early Medieval periods;*
- *A medium potential for archaeological remains dating to the Post-Medieval and Modern periods; and*
- *A high potential for archaeological remains dating to the Medieval remains within the PDA.*

In light of the archaeological potential of the PDA, the local planning authority may require further archaeological investigation to be carried out in the form of an intermittent archaeological watching brief. Any such works should be conducted by a suitably qualified archaeological organisation in accordance with a written specification agreed in advance with the Local Planning Authority.

It is not anticipated that any proposals to develop the site should represent a conflict with legislation or national or local planning policies. The likely development impacts are not considered sufficiently significant to warrant refusal of a planning application to develop the site.

It is anticipated that further detailed setting assessment may be necessary during design of the proposed development.

CRYNODEB ANNHECHNEGOL

Adroddiad ar asesiad wrth ddesg (DBA) o'r amgylchedd hanesyddol ydy hwn, ar gyfer safle tynnu tywod arfaethedig ym Morfa Mawr yng Ngweithfeydd Dur Tata Port Talbot, Morfa Margam, Castell-nedd Port Talbot, SA13 2BZ (Cyfeirnod Grid Cenedlaethol 277745 184350, cod post agosaf SA13 2PH). Mae wedi'i baratoi gan Headland Archaeology (UK) Ltd ar ran Gweithfeydd Dur Tata i gefnogi cais cynllunio i ddatblygu'r safle.

Mae ardal yr astudiaeth DBA yn cynnwys parth clustogi 1km o amgylch yr Ardal Ddatblygu Arfaethedig ar gyfer asedau heb eu dynodi a pharth clustogi 5km o amgylch yr Ardal Ddatblygu Arfaethedig ar gyfer asedau dynodedig, y trafodir datblygiad archaeolegol a hanesyddol y safle a'r cyffiniau oddi mewn iddynt. Yn unol â pholisi a chanllawiau cynllunio cenedlaethol a lleol, ystyrir effeithiau posibl y datblygiad arfaethedig ar weddillion archaeolegol hysbys a phosibl o dan y ddaear yn yr Ardal Ddatblygu Arfaethedig, ac ar amgylchedd asedau hanesyddol.

Nid oes unrhyw asedau dynodedig o fewn ffin yr Ardal Ddatblygu Arfaethedig.

Mae yna 115 o asedau dynodedig o fewn ardal 5km yr astudiaeth. Sef, 17 o Henebion Cofrestredig, wyth o adeiladau Rhestredig gradd I, 15 o adeiladau Rhestredig gradd II, 73 o adeiladau Rhestredig gradd II, un Ardal Gadwraeth a dau o Barciau a Gerddi Rhestredig.*

Mae yna dri ased hanesyddol heb eu dynodi sydd wedi'u cofnodi yng Nghofnod Amgylchedd Hanesyddol GGAT o fewn yr Ardal Ddatblygu Arfaethedig.

- *Magnelfa gynnau gwrthawyrennol trwm (GGAT02564m) yn gyfagos at ben deheuol Ardal A;*
- *Tŵr cwadrant concrit deulawr tal petryal yn gysylltiedig ag RAF Stormy Down (GGAT07406m) o fewn Ardal B; a*
- *Thwyni Merthyr Mawr, Cynffig a Margam (HLW (MGI) 1), sef Tirwedd Hanesyddol sy'n cwmpasu Ardal B a rhan fach o Ardal A.*

Mae yna 47 o asedau eraill heb eu dynodi o fewn ardal 1km yr astudiaeth. O'r rhain, mae naw yn dyddio o'r Oes Efydd, tri o'r cyfnod cynhanesyddol ar y cyfan, dau o'r cyfnod Rhufeinig, un o'r cyfnod Canoloesol Cynnar, pum o'r cyfnod Canoloesol, deg o'r cyfnod Ôl-Ganoloesol, naw o'r cyfnod Modern, ac wyth nad yw eu dyddiad yn hysbys.

Mae adolygiad o ffynonellau sydd wedi'u cyflwyno yn yr adroddiad hwn yn dangos:

- *Mai isel yw'r potensial ar gyfer gweddillion archaeolegol o dan y ddaear sy'n bresennol o'r cyfnod Palaeolithig i'r cyfnod Canoloesol Cynnar;*
- *Mai canolig yw'r potensial ar gyfer gweddillion archaeolegol yn dyddio o'r cyfnodau Ôl-Ganoloesol a Modern; ac*
- *Mai uchel yw'r potensial ar gyfer gweddillion archaeolegol yn dyddio o'r cyfnod Canoloesol o fewn yr Ardal Ddatblygu Arfaethedig.*

O ystyried potensial archaeolegol yr Ardal Ddatblygu Arfaethedig, fe all yr awdurdod cynllunio alw am ymchwiliad archaeolegol pellach ar ffurf briff gwyllo archaeolegol ysbeidiol. Dylai sefydliad archaeolegol â'r cymwysterau addas wneud unrhyw waith o'r fath, yn unol â manyleb ysgrifenedig y cytunir arni ymlaen llaw â'r Awdurdod Cynllunio Lleol.

Ni ragwelir y dylai unrhyw gynigion i ddatblygu'r safle wrthdaro â deddfwriaeth neu bolisiau cynllunio cenedlaethol neu leol. Ni ystyrir bod effeithiau tebygol y datblygiad yn ddigon sylweddol i gyfiawnhau gwrthod cais cynllunio i ddatblygu'r safle.

Rhagwelir y gellid bod angen asesiad manwl pellach o'r lleoliad yn ystod gwaith dylunio'r datblygiad arfaethedig.

HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT

1. INTRODUCTION

1.1. PLANNING BACKGROUND

- 1.1.1. This report was commissioned by Tata Steel UK Ltd and presents the results of an historic environment desk-based assessment (DBA) of proposed sand extraction sites at Morfa Mawr, Port Talbot Steelworks, Margam Moors, Neath Port Talbot (NGR 277745 184350, nearest post code SA13 2PH) to support the development of an archaeological mitigation strategy in compliance with clause 27 of the mineral mining license, which states:

'Sand extraction shall not take place on the areas identified in Lilac on Drg. 317 Figure 1.3 of the Environmental Statement until the applicant or their agents or successors in title has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to the Local Planning Authority and approved in writing.'

- 1.1.2. This report describes and assesses the significance of known historic assets and potential archaeological remains within the proposed development area (PDA). It provides an assessment of the likely impact of the proposed development on the significance of historic assets, and the contribution made by their setting, in order to identify potential historic environment planning constraints. This approach is consistent with the requirements of national and local planning policies on the historic environment in the planning process (see section 2).

1.2. SITE DESCRIPTION

- 1.2.1. The 99 ha PDA is located 2.3 km to the south west of the suburb of Margam, 5.4 km south of Port Talbot, and 14 km south east of the city of Swansea. The PDA is located in the southern extent of the Tata Steel Port Talbot Steelworks, Margam Moors, Neath Port Talbot (NGR 277745 184350) (Illus 1, Illus 2). To the east of the site is Kenfig (Afon Cynffig), beyond which is the Kenfig industrial estate. Further north is a large reservoir at Gwal Ty'n-y-cellar.
- 1.2.2. The PDA is irregular in plan and contains two proposed sand extraction sites, one to the north at Margam Burrows (Area A) and one further south towards Margam and Kenfig Sands (Area B).
- 1.2.3. Area A is a c. 1.3 ha irregular shape ranging in height from 6m Above Ordnance Datum (AOD) in the north to 21m AOD in the middle before sloping down to 8m AOD at the southern end of the area. Area B is also irregular in shape and 3.6 ha in size. It also varies in height, from 7m AOD at the northern end up to 15m at the southern end. Both sites are currently unutilised.
- 1.2.4. Area A is adjacent to an active hazardous landfill and to the east there is an active non-hazardous landfill. Area B is located south of a closed landfill and an active non-hazardous landfill.
- 1.2.5. At a wider topographic scale, the PDA is located in Margam Sands and forms part of Tata Port Talbot Steelworks to the south of Port Talbot, West Glamorgan, South Wales; c. 15km south east of Swansea and c. 40km west of Cardiff.

1.3. GEOLOGY AND GEOMORPHOLOGY

- 1.3.1. The underlying solid geology is recorded by the BGS as South Wales Lower Coal Measures Formation - Mudstone, Siltstone and Sandstone. This sedimentary bedrock formed approximately 318 to 319 million years ago in the Carboniferous Period, when the local environment was dominated by swamps, estuaries and deltas. Superficial deposits are recorded as Blown Sand, formed up to 3 million years ago in the Quaternary Period when the local environment was dominated by wind blown deposits¹.

¹ British Geological Survey, 2022



Illus 1. Site location



Illus 2. Current site layout

2. LEGISLATION, POLICY AND GUIDANCE

2.1. STATUTORY PROTECTION

2.1.1. The relevant heritage legislation in the context of the present site is described in Table 1 below.

Table 1. Historic Environment Statutory Legislation

Legislation	Key Issues
Ancient Monuments and Archaeological Areas Act 1979	It is a criminal offence to carry out any works on or near to a Scheduled Monument without Scheduled Monument Consent. Development must preserve in-situ protected archaeological remains and landscapes of acknowledged significance and protect their settings.
Planning (Listed Buildings and Conservation Areas) Act (1990)	The 1990 Act is amended by the Enterprise and Regulatory Reform Act 2013 to introduce additional controls for works to listed buildings. Section 1 of the Act requires the Secretary of State to compile and maintain lists of buildings of special architectural or historic interest. The principal statutory duty under the Act is to preserve the special character of these historic assets, including their setting. Buildings on the list are assessed and graded against the criteria of architectural and historic interest. Buildings listed at Grade I are defined as those considered to be of exceptional interest. Grade II* listed buildings are particularly important buildings of more than special interest, while Grade II listed buildings are of special interest. This may include the extent to which the exterior of a building contributes to the interest of a group of buildings, i.e. 'group value'.
Treasure Act (1996)	The 1996 Act defines 'Treasure' as any object that is at least 10% gold or silver, associated with coins or groups of coins which are over 300 years old, objects formerly classed as 'treasure trove' (i.e. deliberately deposited items with a high content of gold or silver) and any objects found in association with the above. Any find of 'Treasure' must be reported to the local Coroner.
Burial Act (1857)	Under Section 25 of the 1857 Act, it is generally a criminal offence to remove human remains from any place of burial without an appropriate licence issued by the Ministry of Justice (MoJ), although recent legislative changes indicate that some cases are exempt from this requirement.
The Planning Act (Wales) (2015)	Outlines a legal framework for the National Development Framework, making provision for pre-application consultation and introduces a streamlined planning system "delivering timely, fair and consistent decisions that will enhance the built, natural and historic environment in Wales".

Legislation	Key Issues
The Historic Environment (Wales) Act (2016)	This Act makes amendments to the Ancient Monuments and Archaeological Areas Act 1979, primarily in relation to ancient monuments in Wales. It also makes provision for the Welsh Ministers to compile and maintain a register of historic parks and gardens. It also makes amendments to the Planning (listed buildings and conservation areas) Act 1990 (c.9) in relation to buildings in Wales that are of special architectural or historic interest ("listed buildings"). The Act makes other provisions including: (a) for the compilation of a list of historic place names in Wales (section 34), (b) for the compilation of a historic environment record for each local authority area in Wales (sections 35 to 37), and (c) for the establishment, constitution and functions of the Advisory Panel for the Welsh Historic Environment (sections 38 and 39).
Planning Policy Wales Edition 11 (2021)	Sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales. TAN 24: The Historic Environment includes guidance on world heritage sites, scheduled monuments, archaeological remains, listed buildings, conservation areas, historic parks and gardens, historic landscapes and historic assets of special local interest.

2.2. PLANNING POLICY WALES

- 2.2.1. TAN 24: The Historic Environment provides guidance on how the planning system considers the historic environment during development plan preparation and decision making on planning and Listed Building (LBC) applications.
- 2.2.2. This report contributes to meeting the following Policies on the historic environment contained in the document (paragraph numbers in bold text):

1.15 *Heritage impact assessment is a structured process that enables the significance of a designated asset to be taken into account when considering proposals for change. Heritage impact assessments should be proportionate both to the significance of the historic asset and to the degree of change proposed, and should include sufficient information to enable both the significance of the asset and the impact of change to be understood. The results of the heritage impact assessment should be summarised in a heritage impact statement which must form part of any listed building consent, conservation area consent and, when requested, scheduled monument consent applications.*

1.23 *Planning Policy Wales identifies how local planning authorities must treat World Heritage Sites, scheduled monuments, unscheduled nationally important archaeological remains²¹, listed buildings, conservation areas and registered historic parks and gardens in Wales in their consideration of planning applications and producing development plans. This includes the impact of proposed developments within the settings of these historic assets.*

1.25 *The setting of an historic asset includes the surroundings in which it is understood, experienced, and appreciated embracing present and past relationships to the surrounding landscape. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral. Setting is not a historic asset in its own right but has value derived from how different elements may contribute to the significance of a historic asset.*

2.3. LOCAL PLANNING POLICY

- 2.3.1. The Neath Port Talbot Local Development Plan ² contains policy SP 21 Built Environment and Historic Heritage, which states:

The built environment and historic heritage will, where appropriate, be conserved and enhanced through the following measures:

1. *Encouraging high quality design standards in all development proposals;*
2. *Protecting arterial gateways from intrusive and inappropriate development;*
3. *Safeguarding features of historic and cultural importance;*
4. *The identification of the following designated sites to enable their protection and where appropriate enhancement:*
 - (a) *Landscapes of Historic Interest;*
 - (b) *Historic Parks and Gardens;*
 - (c) *Conservation Areas;*
 - (d) *Scheduled Ancient Monuments; and*
 - (e) *Listed Buildings and their curtilage.*

- 2.3.2. The Vale of Glamorgan Local Development Plan (Vale of Glamorgan Council, 2017) contains policy MD8: Historic Environment, which states:

'Development proposals must protect the qualities of the built and historic environment of the Vale of Glamorgan, specifically:

1. *Within conservation areas, development proposals must preserve or enhance the character or appearance of the area;*
2. *For listed and locally listed buildings, development proposals must preserve or enhance the building, its setting and any features of significance it possesses;*
3. *Within designated landscapes, historic parks and gardens, and battlefields, development proposals must respect the special historic character and quality of these areas, their settings or historic views or vistas;*
4. *For sites of archaeological interest, development proposals must preserve or enhance archaeological remains and where appropriate their settings'.*

2.4. GUIDANCE

- 2.4.1. This DBA has been prepared with reference to the ClfA's *Standard and Guidance for Historic Environment Desk-Based Assessment* (2020) and *Code of Conduct* (2019), *The Planning Act (Wales)* (2015), *The Historic Environment (Wales) Act* (2016), *Planning Policy Wales Edition 11* (2021), *Technical Advice Note 24: The Historic Environment* (2017), Cadw's *guidance on Heritage Impact Assessment in Wales* (2017) and *Setting of Historic Assets in Wales* (2017), RCAHMW *Guidelines for Digital Archives Version 1* (2015) and National Panel for Archaeological Archives in Wales' (NPAAW) *National Standard and Guidance to Best Practice for Collecting and Deposition of Archaeological Archives in Wales* (2017). Any data submitted to the HER will conform to standards set out in the Welsh Archaeological Trusts' *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* (2018).

2.5. CONSULTATION

- 2.5.1. This report has been prepared following the methodology outlined in *Morfa Mawr, Port Talbot Desk-Based Assessment Methodology* (Headland Archaeology, 2022), with guidance and approval from Judith Doyle (Stewardship Officer for Gwent and Glamorgan Archaeological Trust (GGAT)).

² [Neath port Talbot County Borough Council, 2016](#)

2.6. PROFESSIONAL STANDARDS AND ACKNOWLEDGEMENTS

- 2.6.1. Headland Archaeology (UK) is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA), an audited status which confirms that all work is carried out in accordance with the highest standards of the profession.
- 2.6.2. Headland Archaeology (UK), as part of the RSK Group, is recognised by the Institute of Historic Building Conservation (IHBC) under their 'Historic Environment Service Provider Recognition' scheme. This quality assurance standard acknowledges that RSK works to the conservation standards of the IHBC, the UK's lead body for built and historic environment practitioners and specialists.
- 2.6.3. Headland Archaeology (UK) operates a quality management system to help ensure all projects are managed in a professional and transparent manner, which enables it to qualify for ISO9001 Quality Management, ISO45001 health and safety management and ISO14001 environmental management.
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3. AIMS AND OBJECTIVES

- 3.1.1. The aim of this DBA is to support the development of an archaeological mitigation strategy in compliance with clause 27 of the mineral mining license. The assessment aims to identify all known historic assets potentially affected by the proposed development, and the potential for currently unknown historic assets.
- 3.1.2. The purpose is to gain an understanding of the historic environment resource in order to formulate an assessment of the potential for historic assets to survive within the PDA, their significance, and strategies for further evaluation, mitigation or management as appropriate.
- 3.1.3. The ClfA's *Standard and Guidance for Historic Environment Desk-Based Assessment* (2017³) defines a DBA as '*...a programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely historic assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of historic assets... Significance is to be judged in a local, regional, national or international context as appropriate.*'
- 3.1.4. The objectives are therefore to:
- Collate all available written, graphic, photographic and electronic information relevant to the PDA;
 - Describe the nature, extent and significance and importance of the historic environment within the area potentially affected by the proposed development, identifying any uncertainties in existing knowledge;
 - Determine the potential for previously unknown archaeological remains;
 - Determine the likely impact of the proposed development;
 - Identify historic assets beyond the PDA that may be affected by development within their setting, to describe their significance and the contribution made by their setting, and make an assessment of how this significance may be affected by the proposed development; and
 - Identify any requirements for further investigation that may be necessary to understand the impacts of the proposed development on the historic environment.

³ https://www.archaeologists.net/sites/default/files/ClfAS%26GDBA_4.pdf

4. METHODOLOGY

4.1. TERMINOLOGY – ‘SIGNIFICANCE’ AND ‘IMPORTANCE’

- 4.1.1. Historic assets are assessed in this report in terms of their significance and importance, following the requirements in TAN24, and taking account of Cadw's guidance on *Heritage Impact Assessment in Wales* (2017) and *Setting of Historic Assets in Wales* (2017).
- 4.1.2. Impact assessment is concerned with effects on significance, the value or interest that applies to all historic assets and relating to the ways in which the historic environment is valued both by specialists and the public.
- 4.1.3. The significance of a historic asset will derive from factors including fabric, setting, rarity, completeness, historic and cultural associations, community, research and place-making potential. Significance is assessed in relation to the criteria in Cadw's guidance on *Heritage Impact Assessment in Wales* (2017) and *Setting of Historic Assets in Wales* (2017)), which are intended primarily to inform decisions regarding heritage designations but may also be applied more generally in identifying the 'special characteristics' of a historic asset, which contribute to its significance and should be protected, conserved and enhanced according to TAN24.
- 4.1.4. This use of the word 'significance', referring to the range of values or interest attached to an asset, should not be confused with the unrelated usage in EIA where the 'significance of an effect' reflects the weight that should be attached to it in a planning decision.
- 4.1.5. Relative importance of each identified historic asset potentially affected by the proposed development has been determined to provide a framework for comparison between different historic assets and to inform subsequent stages of archaeological assessment and the development of any appropriate mitigation which may be required (See Table 2 below).
- 4.1.6. For further terminology and definitions, see Glossary.

4.2. IDENTIFICATION OF HISTORIC ASSETS THAT MAY BE AFFECTED

STUDY AREA

- 4.2.1. The study area for this assessment comprises a 1km buffer surrounding the PDA for non-designated assets and a 5km buffer around the PDA for designated assets as agreed with Judith Doyle (Stewardship Officer for GGAT), within which the archaeological and historical development of the PDA and surrounding area has been considered.

DATA SOURCES

- 4.2.2. The assessment has been based on a study of all readily available documentary sources, following the ClfA Standards and Guidance. The following sources of information were referred to:
 - Designation data from the Cof Cymru - National Historic Assets of Wales, downloaded from the Cadw website⁴ on 25 July 2022;
 - Records from the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) received on 30 August 2022.
 - Archaeological records and aerial photographs held by the Glamorgan-Gwent Archaeological Trust (GGAT) Historic Environment Record (HER) received on 27 July 2022 (search reference number 6852)
 - Natural Resources Wales Lidar data⁵;
 - Geological data available online from the British Geological Survey⁶; and
 - Readily available published sources and unpublished archaeological reports.

⁴ <https://cadw.gov.wales/advice-support/cof-cymru/downloads>

⁵ <https://lle.gov.wales/catalogue/item/LidarCompositeDataset/?lang=en>

⁶ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

- 4.2.3. Historic assets within the Proposed Development Area are shown in Illus 3, Illus 4 and Illus 5, with detailed descriptions compiled in a gazetteer (Appendix 1).
- 4.2.4. Designated historic assets are referenced in this report by Cadw reference number. Non-designated assets are referenced by HER reference or RCAHMW reference. Any newly discovered assets are assigned a number prefixed HA for Historic Asset. A single asset number can refer to a group of related features, which may be recorded separately in the HER and other data sources.

SITE VISIT

- 4.2.5. A site visit was undertaken on 1 September 2022, during which notes were made regarding site characteristics, any visible archaeology and geographical/geological features. These elements may have a bearing on previous land use and archaeological survival, as well as those which may constrain subsequent archaeological investigation.
- 4.2.6. Records were made regarding extant archaeological features, such as earthworks or structural remains, any negative features, local topography and aspect, exposed geology, soils, watercourses, health and safety considerations, surface finds, and any other relevant information.

HISTORIC MAP REGRESSION

- 4.2.7. The historic mapping sequence corresponding with the PDA was consulted to collect information on former land use and development throughout the later historic periods.

LIDAR

- 4.2.8. Light Detection and Ranging (LiDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. Up to 500,000 measurements per second are made of the ground, allowing highly detailed terrain models to be generated in which it is possible to identify shallow or otherwise imperceptible topographic features.
- 4.2.9. A Composite Digital Terrain Model (DTM) has been produced by removing objects from the Digital Surface Model (DSM) which is available at 1m resolution for the PDA. Composite data breaks down by spatial resolution i.e. 2m, 1m, 50cm and 25cm and is made up from a combination of the full EA dataset which has been merged and re-sampled to give the best possible coverage. This means that a 1m resolution tile may contain decimated 50cm data as well as native captured 1m data. It is not possible using only the composite to know which part of a given tile was surveyed at which resolution.
- 4.2.10. Analysis was undertaken by a professional archaeologist using QGIS imaging and geo-referencing/mapping software.

4.3. LIMITATIONS OF BASELINE DATA

DATA SOURCES

- 4.3.1. Information held by public data sources is generally considered to be reliable. However, the following general points are noted:
- Tithe mapping was not available for consultation for this DBA;
 - Documentary sources are rare before the medieval period;
 - Whilst it is accepted that historic documents may be biased depending on the author, with content seen through the lens of context, wherever such documentary sources are used in assessing archaeological potential professional judgment is used in their interpretation in that the functionality of the document is considered;
 - HER records can be limited because opportunities for research, fieldwork and discovery depend on the situation of commercial development and occasional research projects, rather than the result of a more structured research framework. A lack of data within the HER records does not necessarily equal an absence of archaeology;

- Where archaeological sites have been identified solely from aerial imagery without confirmation from archaeological excavation or supporting evidence in the form of find-spots for example, it is possible the interpretation may be revised in the light of further investigation.
- The significance of sites can be difficult to identify from HER records, depending on the accuracy and reliability of the original source; and
- There can often be a lack of dating evidence for archaeological sites.

SITE VISIT

- 4.3.2. Any archaeological site visit has inherent limitations, primarily because archaeological remains below ground level may have no surface indicators.

4.4. IMPACT ASSESSMENT

ASSESSMENT OF IMPORTANCE

- 4.4.1. The importance of a historic asset is the overall value assigned to it reflecting its statutory designation or, in the case of undesignated assets, the professional judgement of the assessor (Table 2).
- 4.4.2. Any feature which does not merit consideration in planning decisions due to its significance may be said to have negligible importance. It is the role of the professional judgements made by the assessor to identify any historic remains within the PDA that are considered to be of negligible importance, to justify no further works.

Table 2. Criteria for Assessing the Importance of Historic assets

Importance of the asset	Criteria
Very High (International)	World Heritage Sites and other assets of equal international importance, that contribute to international research objectives
High (National)	Grade I and II* Registered Parks and Gardens, Scheduled Monuments, Protected Wreck Sites, Registered Battlefields, Grade I and II* Listed Buildings, and undesignated historic assets of equivalent importance that contribute to national research objectives. Also Conservation Areas, Grade II Registered Parks and Gardens and Grade II Listed Buildings which have particular characteristics that merit a high level of importance.
Medium (National or Regional)	Conservation Areas, Grade II Registered Parks and Gardens, Grade II Listed Buildings except where their particular characteristics merit a higher level of importance, historic assets on local lists and undesignated assets that contribute to Regional research objectives
Low (Local)	Locally listed historic assets, except where their particular characteristics merit a higher level of importance, undesignated historic assets of Local importance, including assets that may already be partially damaged
Negligible	Identified historic remains of no importance in planning considerations, or historic assets and findspots that have already been removed or destroyed (i.e. 'site of')
Unknown / Uncertain	Historic assets for which a level of importance cannot be defined on current information

- 4.4.3. The importance of historic assets that may be affected by the proposed development is identified in the impact assessment and summarised in the gazetteer (Appendix 1).

POTENTIAL FOR UNKNOWN HISTORIC ASSETS

4.4.4. Archaeological features are often impossible to identify through desk-based assessment. The likelihood that significant undiscovered historic assets may be present within the Proposed Development Area is referred to as *archaeological potential*. Overall levels of potential can be assigned to different landscape zones, following the criteria in Table 3, while recognising that the archaeological potential of any zone will relate to particular historical periods and types of evidence. The following factors are considered in assessing archaeological potential:

- The distribution and character of known archaeological remains in the vicinity, based principally on an appraisal of data from Glamorgan-Gwent Archaeological Trust Historic Environment Record (HER), Cadw and RCAHMW.
- The history of archaeological fieldwork and research in the surrounding area, which may give an indication of the reliability and completeness of existing records;
- Environmental factors such as geology, topography and soil quality, which would have influenced land-use in the past and can therefore be used to predict the distribution of archaeological remains;
- Land-use factors affecting the survival of archaeological remains, such as ploughing or quarrying; and
- Factors affecting the visibility of archaeological remains, which may relate to both environment and land-use, such as soils and geology (which may be more or less conducive to formation of cropmarks), arable cultivation (which has potential to show cropmarks and create surface artefact scatters), vegetation, which can conceal upstanding features, and superficial deposits such as peat and alluvium which can mask archaeological features.

Table 3. Archaeological potential

Potential	Definition
High	Undiscovered historic assets of high or medium importance are likely to be present.
Medium	Undiscovered historic assets of low importance are likely to be present; and it is possible, though unlikely, that assets of high or medium importance may also be present.
Low	The study area may contain undiscovered historic assets, but these are unlikely to be numerous and are highly unlikely to include assets of high or medium importance.
Negligible	The study area is highly unlikely to contain undiscovered historic assets of any level of importance.
Nil	There is no possibility of undiscovered historic assets existing within the study area.

IMPACT ASSESSMENT

4.4.5. Impact assessment considers the effects of the proposed development on the significance of the identified historic assets, or its assessed archaeological potential, including both positive ('beneficial') and adverse ('harm') impacts.

4.4.6. The assessment of physical impacts considers the extent or degree of harm proposed relative to the importance of the physical remains.

SETTING IMPACTS

4.4.7. Visual impacts are most commonly encountered but other introduced environmental factors can affect setting such as noise, light or air quality. Impacts may be encountered at all stages in the life cycle of a development from construction to decommissioning but they are only likely to lead to substantial harm during the prolonged operational life of the development.

- 4.4.8. Where potential impacts on the settings of a historic assets are identified, the assessment of significance includes 'assessing whether, how and to what degree these settings make a contribution to the significance of the historic asset(s)', following Step 2 of the staged approach to setting recommended in Cadw's guidance on *Heritage Impact Assessment in Wales* (2017) and *Setting of Historic Assets in Wales* (2017)
- 4.4.9. An assessment of the sensitivity of a historic asset to change within its setting is a professional judgement, based on consideration of the asset's significance and the contribution its current and historical setting makes to that significance.
- 4.4.10. In accordance with Cadw's guidance on *Heritage Impact Assessment in Wales* (2017) and *Setting of Historic Assets in Wales* (2017) and through an assessment of significance in accordance with TAN24, a screening exercise has been undertaken to identify the historic assets that are likely to be affected by the proposed development and therefore require detailed assessment.
- 4.4.11. Historic assets identified as with a potential line-of-sight with the PDA were visited and assessed with a view to potential setting impacts. The site visit enabled assessment of likely impacts of the proposed development: locations which would remain unaffected, locations which have some visibility but that is minimal and does not affect the baseline condition, and locations where visibility is possible/prominent.
- 4.4.12. The scope of this DBA is limited to identifying where no substantial setting impacts are anticipated requiring no further works, or where substantial setting impacts are anticipated, to identify which historic assets are considered likely to be affected, and to make recommendations for proportionate further detailed assessments.
- 4.4.13. For the purposes of this assessment a group of 36 designated assets comprising five Scheduled Ancient Monuments, five grade I listed buildings, five grade II* listed buildings, 19 grade II listed buildings, one Registered Park and Garden, and one Conservation area (as outlined below in Table 4) are assessed for potential setting impacts as a group (Group 1).

Table 4. Group 1 designated assets

ID	Name	Status	Period	Easting	Northing
GM477	Half Moon Camp	SAM	Iron Age	279965	186732
GM005	Margam Abbey	SAM	Medieval	280185	186252
GM011	Margam Inscribed & Sculptured Stones	SAM	Early Medieval	280139	186350
GM162	Mynydd y Castell Camp	SAM	Iron Age	280616	186572
GM163	Hen Eglwys Chapel and Defended Enclosure	SAM	Medieval	280123	186522
11248	Church of St Mary Magdalen, Pyle with Kenfig.	II*	Medieval	280662	181947
14148	St Mary's Abbey Church	I	Medieval	280152	186291
14149	Ruins of Chapter House and Vestibule of St Mary's Abbey	I	Medieval	280197	186267
14150	Ruined Undercroft at St Mary's Abbey	I	Medieval	280193	186235
14151	Almshouses	II	Post Medieval	280071	186318
14152	Margam Orangery	I	Post Medieval	280118	186238
14153	Ivy Cottage including Facade of Former Banqueting House	I	Post Medieval	280081	186287
14155	Hen Eglwys	II*	Medieval	280123	186522
14161	Churchyard Walls and Gate Piers to St Mary's Abbey Church	II	Post Medieval	280110	186307
14162	Kitchen Garden Walls including Vinery Glasshouse	II	Post Medieval	280031	186342
14163	Terrace Walls and Screen at Margam Castle	II*	Post Medieval	280447	186250
14164	Middle Lodge	II	Post Medieval	280015	186374
14165	Cwm Cottage	II	Post Medieval	279852	186116
14166	Margam Cottage	II	Post Medieval	279888	186115
14167	2 Grove Cottages	II	Post Medieval	279846	186300
14170	Margam Castle	I	Post Medieval	280494	186284
23264	Citrus House	II	Post Medieval	279984	186276

ID	Name	Status	Period	Easting	Northing
23265	Retaining Wall adjoining Citrus House	II	Post Medieval	280014	186294
23266	Stone Steps in Terraced Garden	II	Post Medieval	280422	186275
23267	Terrace with Pools and Flower Beds Fronting Margam Orangery	II*	Post Medieval	280118	186217
23268	Turbine House	II	Post Medieval	280266	186048
23269	Stones Museum	II	Post Medieval	280139	186349
23270	War Memorial	II	Modern	280102	186291
23271	Pair of Gate Piers to the Former Margam House	II	Post Medieval	280066	186041
23272	Ornamental Pool	II	Post Medieval	279992	186223
23273	Former Changing Room	II	Post Medieval	279974	186251
23276	Arch over Culvert	II	Post Medieval	280260	186320
23278	Service Buildings including Courtyard Walls at Margam Castle	II*	Post Medieval	280552	186290
23293	3 Grove Cottages	II	Post Medieval	279839	186302
151	Margam Park	CA	N/A	280145	186282
PGW(Gm) 52 (NEP)	Margam Park	RPG	Post Medieval	281010	186167

MINIMISING HARM

- 4.4.14. Where appropriate, measures for further assessment of, or mitigation of identified impacts are recommended.
- 4.4.15. A summary is presented of the measures to remove, reduce or mitigate harm to historic assets through careful design and consideration within the development proposals.

5. RESULTS

5.1. OVERVIEW OF THE HISTORIC ENVIRONMENT

- 5.1.1. The full list of known historic assets is presented in the gazetteer (Appendix 1), and the locations of each are shown on Illus 3, Illus 4 and Illus 5.
- 5.1.2. The significance of these assets is discussed by period in the Assessment of Heritage Significance section below.
- 5.1.3. There are no designated assets located within the PDA boundary.
- 5.1.4. There are 115 designated assets located within the 5km study area. These comprise 17 Scheduled Ancient Monuments, eight grade I Listed buildings, 15 grade II* Listed buildings, 73 grade II listed buildings, one Conservation Area and two Registered Parks and Gardens.
- 5.1.5. There are three non-designated historic assets located recorded on the GGAT HER within the PDA:
- A heavy anti-aircraft battery (GGAT02564m) adjacent to the southern extent of Area A;
 - A tall rectangular two-storey concrete quadrant tower associated with RAF Stormy Down (GGAT07406m) within Area B; and
 - Merthyr Mawr, Kenfig & Margam Burrows (HLW (MGI) 1), an Historic Landscape covering Area B and a small part of Area A.
- 5.1.6. There are a further 47 non-designated assets located within the 1km study area. Of these, nine date to the Bronze Age, three to the prehistoric period as a whole, two to the Roman period, one Early Medieval, five Medieval, ten to the Post-Medieval period, nine are Modern, and eight are of unknown date.

5.2. HISTORIC LANDSCAPE CHARACTER (HLC)

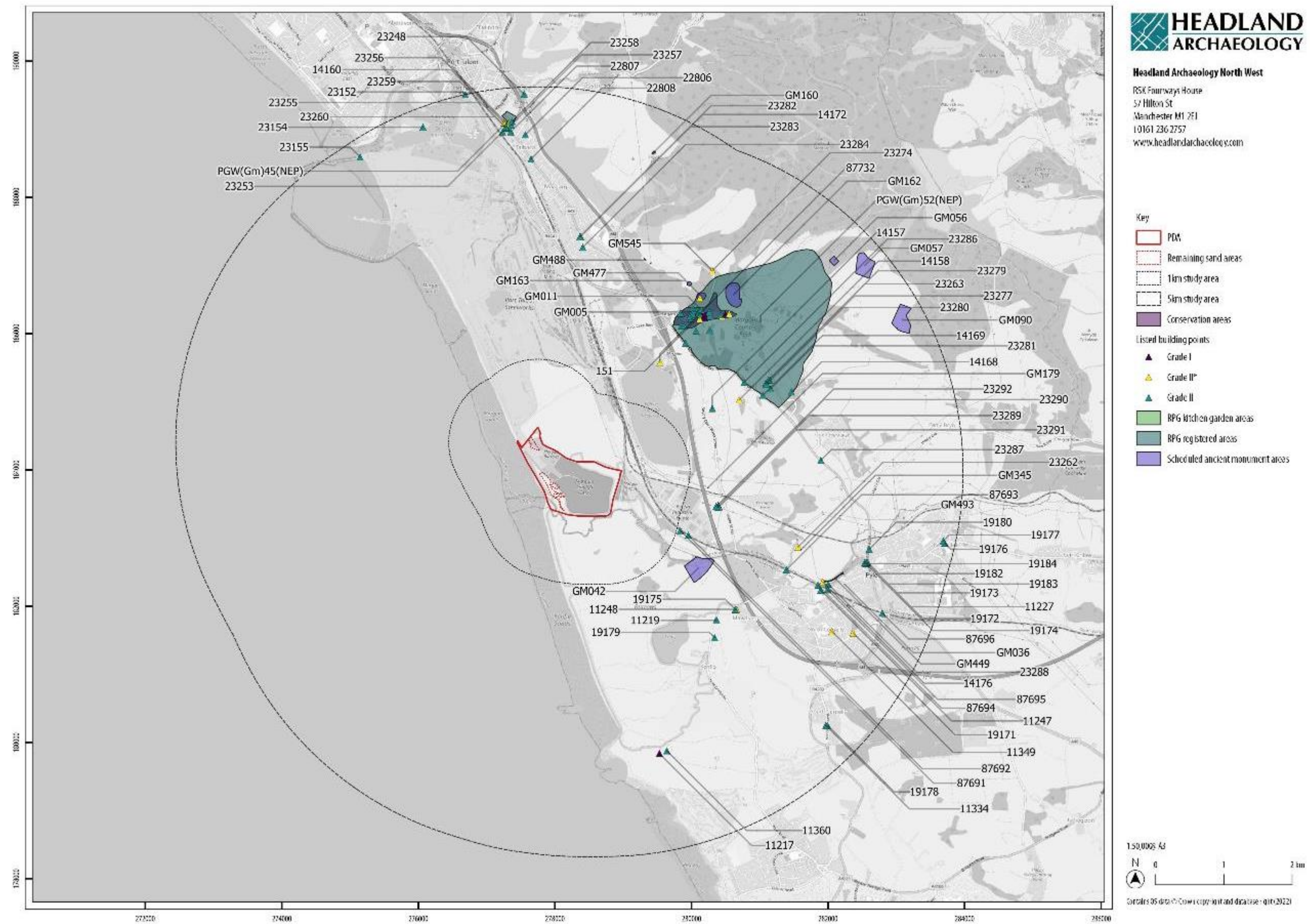
- 5.2.1. Historic Landscape Characterisation of the study area defines the PDA as: HLCA003 Margam Burrows. This is an area of coastal sand dunes with recent industrial intrusion. There is also a medieval warren located in the area, as well as a 20th century military/defensive landscape⁷.

5.3. PREVIOUS INVESTIGATIONS

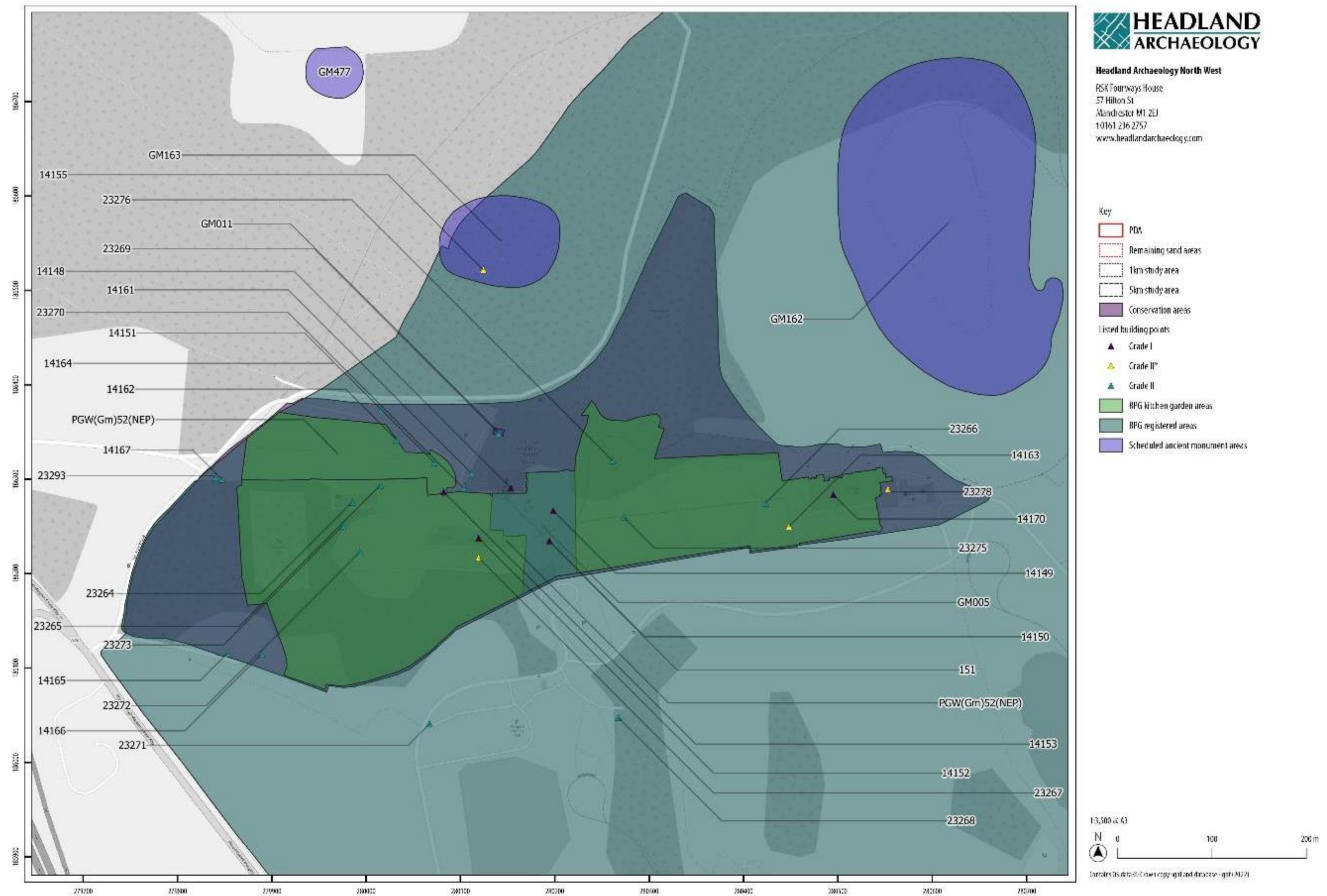
- 5.3.1. The locations of the investigations detailed below are shown on Illus 6.
- 5.3.2. A single previous archaeological event is recorded within the PDA: the PDA has been covered by the GGAT150: Rapid Coastline Zone Assessment (E006100). GGAT undertook a scoping exercise in 2016-2017 to define a coastal zone area in relation to currently mapped risks associated with climate change and determined what work should be done to bring the quality and scope of data on the coast of Glamorgan and Gwent up to present standards.
- 5.3.3. A further two previous archaeological events are recorded within the study area:
- An Assessment of the Significance of the Impact of the Development on the Historic Landscape (ASIDOHL) was carried out at the Kenfig Industrial Estate (E005059). During 2013, Archaeology Wales were commissioned by Mango Planning to undertake an ASIDOHL in connection with the proposed installation of a 77m high wind turbine at Kenfig Industrial Estate, Margam, and its potential impacts on two adjacent Registered Historic Landscapes (RHLs): Margam Mountain and Merthyr Mawr, Kenfig & Margam Burrows. The ASIDOHL concluded that there would be a Low impact on some visual, non-physical aspects of the adjacent RHLs, and would lead to a Slight reduction in the overall value of both landscapes. However, given the location of the proposed development site, close to both the M4 corridor and Port Talbot Steel Works, the overall impact of the development was considered to be Negligible; and

⁷ Gwent-Glamorgan Archaeological Trust, 2021

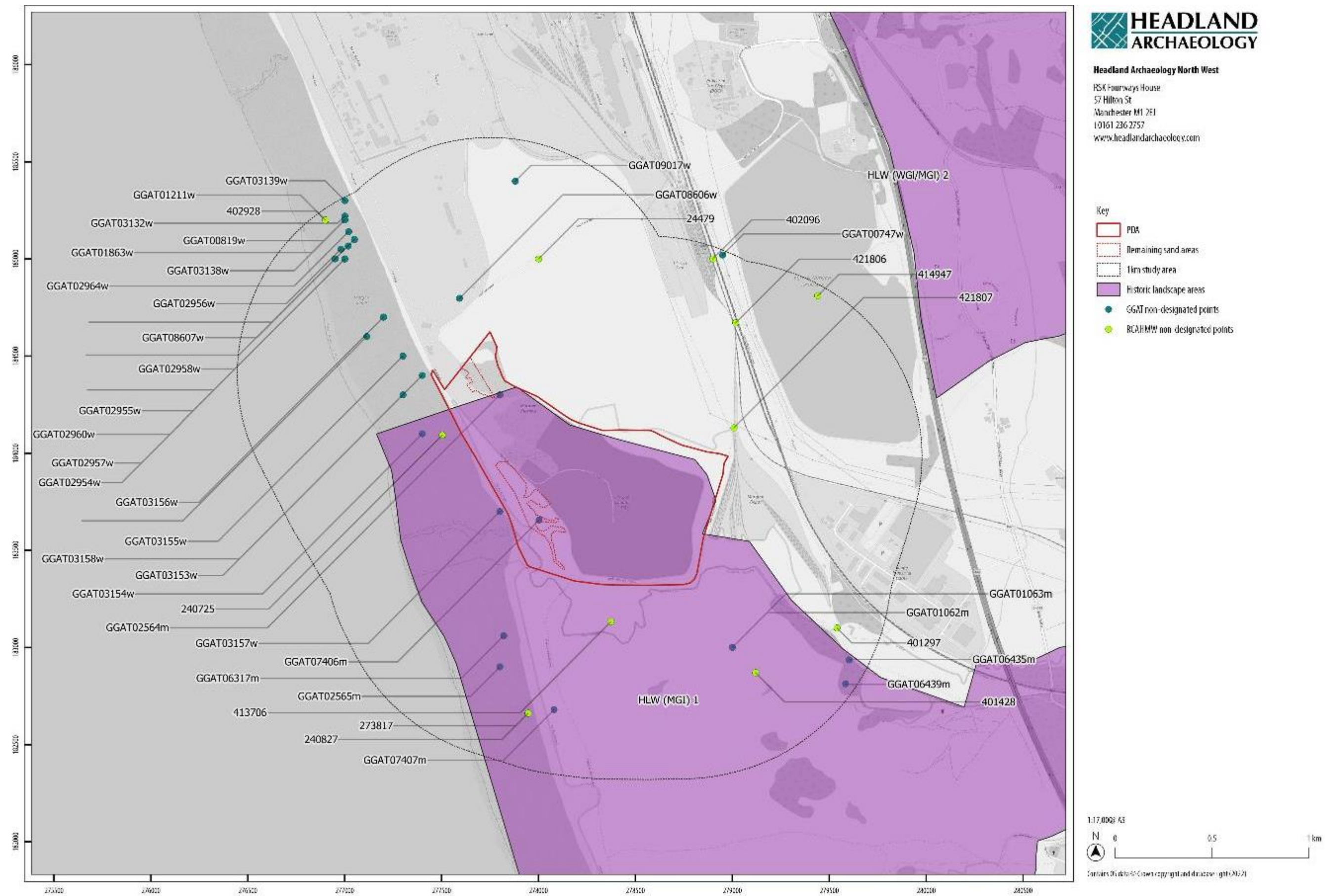
- An archaeological watching brief was carried out during intrusive groundworks for the Marlas-Raos Sewage Pipeline (E003718). GGAT were advised by Dwr Cymru that a new pipeline was being constructed between the sewage works at Marlas and the pumping station at Raos. Work had already commenced and therefore only a reactive response to possible archaeological threat was possible. Fieldwork was restricted to monitoring the topsoil strip and pipe trench cut in the two most archaeological sensitive areas. Observations that were possible suggested that the potential for the preservation of archaeological remains, particularly from the prehistoric period, is high.



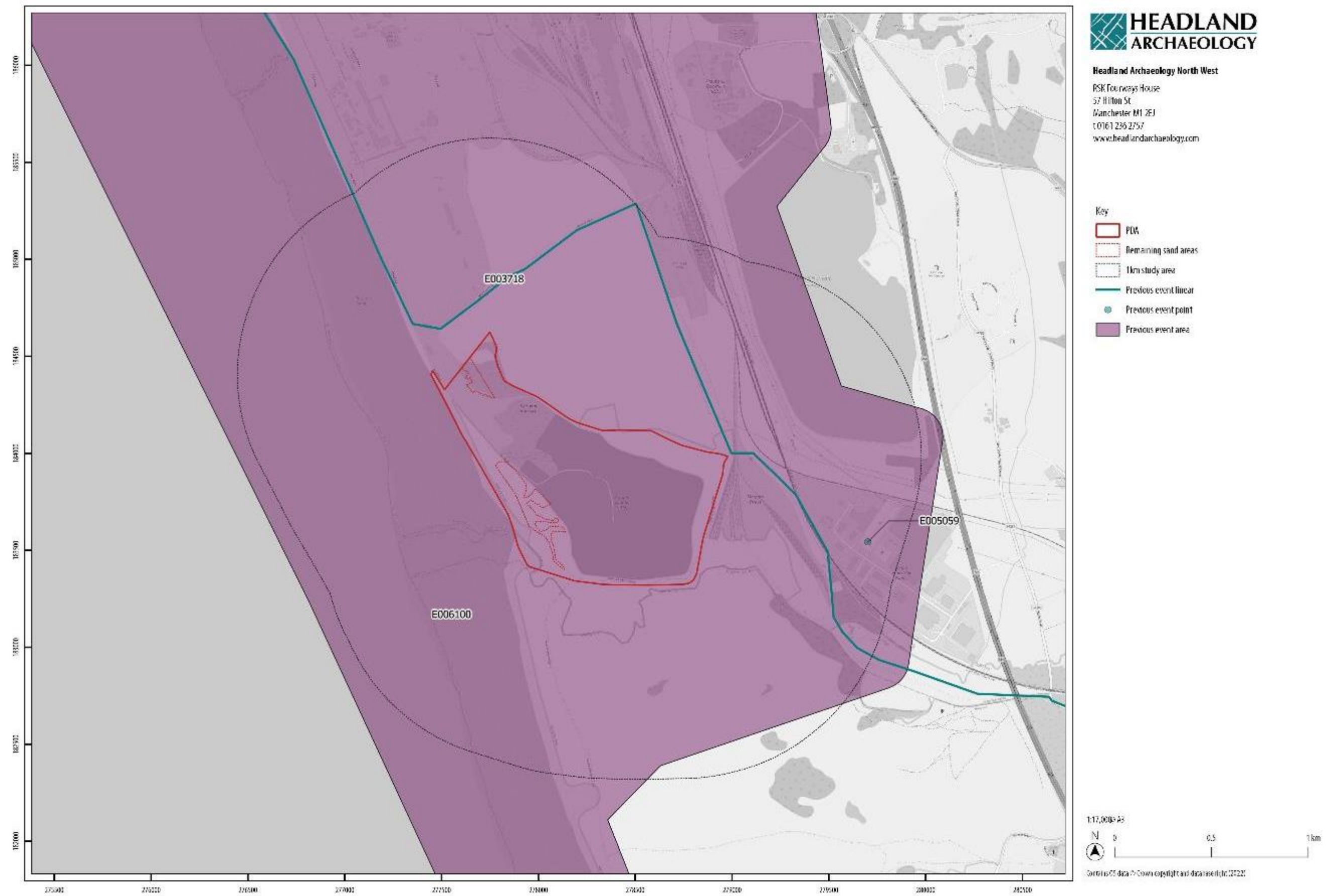
Illus 3. Designated constraints within 5km



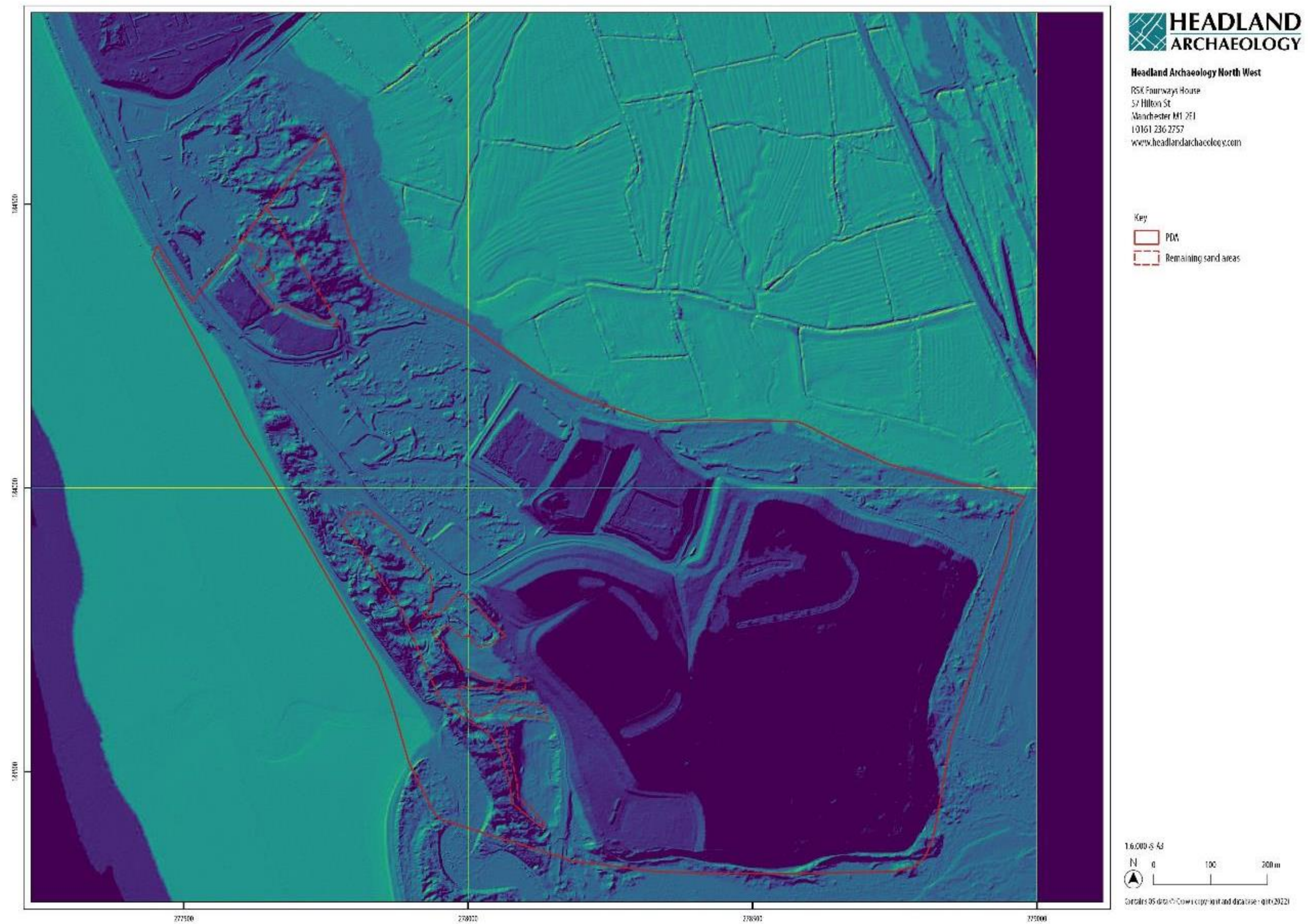
Illus 4. Detail of Group 1 designated constraints



Illus 5. Non-designated assets within 1km



Illus 6. Previous archaeological events within 1km



Illus 7. Processed LiDAR data for the PDA

5.4. SITE VISIT

- 5.4.1. A site visit was carried out on 1 September 2022, including sand extraction sites A and B as well as the PDA. Weather was overcast but visibility remained good throughout the visit.
- 5.4.2. Large sand dunes dominate the majority of the site and are reported to shift (Illus 8, Illus 9 & Illus 10). A notable group of trees growing over a large dune was located on the edge of Area A (Illus 11, Illus 12 & Illus 13). Area B was composed of very large sand dunes on the edge of two borrow pits (a pit resulting from the excavation of material for use in embankments) (Illus 14, Illus 15 & Illus 16). Three areas within the PDA are currently used as landfill sites.
- 5.4.3. A small hollow and lumps of concrete were all that remained of the WWII battery (GGAT02564m) with no further evidence extant features visible during the site visit. The RAF tower (GGAT07406m) is no longer extant, the only remains found during the site visit were some lumps of loose concrete which may be associated with the asset (Illus 17, Illus 18 & Illus 24).
- 5.4.4. Visibility across the PDA towards Group 1 designated assets (as defined in Table 4) was largely not possible. Group 1 is located between 3.1 and 3.4km to the north east of the PDA. Visibility towards these assets was only possible from the top of the tallest sand dunes (Illus 19, Illus 20 & Illus 21).
- 5.4.5. There was no obvious evidence of borrow pits visible to the south of the PDA but there was an area of smaller dunes observable (Illus 22).
- 5.4.6. The eastern portion of the PDA was in use as a current landfill area, and as such access was not available here (Illus 23).



Illus 8. Sand dunes within Area A, facing north east



Illus 9. Sand dunes in Area A, facing east



Illus 10. Sand dunes in Area A, facing south east



Illus 11. Wooded area within Area A, facing north



Illus 12. Wooded area within Area A, facing east



Illus 13. Wooded area within Area A, facing north



Illus 14. Borrow pits within area B, facing north west



Illus 15. Borrow pits within Area B, facing north



Illus 16. Borrow pits within Area B, facing south



Illus 17. Site of RAF tower (GGAT07406m), facing south east



Illus 18. Site of RAF tower (GGAT07406m), facing south west



Illus 19. Visibility towards Group 1 designated assets, facing east



Illus 20. Visibility towards Group 1 designated assets, facing north east



Illus 21. Visibility towards Group 1 designated assets, facing north east



Illus 22. Sand dunes to the south of the PDA, facing south



Illus 23. Landfill to the east of the PDA, facing south east



Illus 24. Potential remains of RAF tower (GGAT07406m)

5.5. ARCHAEOLOGICAL AND HISTORICAL NARRATIVE

PREHISTORIC PERIODS

PALAEOLITHIC (800,000 – 8500 BCE)

- 5.5.1. The Palaeolithic period in Wales includes the first record of early Neanderthals at Pontnewydd Cave and the first appearance of anatomically modern humans, concluding with the almost complete demise of hunter gatherer-fisher communities in the early Holocene. Throughout this period the human presence was influenced by the glacial-interglacial cycle and the accompanying climatic and environmental changes. Settlement distribution in the region was biased towards caves in this period⁸.
- 5.5.2. Paviland Cave at Rhossili on the coast of Gower, approximately 34km west of the PDA, is considered the most significant archaeological site in Britain of the earlier Upper Palaeolithic period. This was the location of the recovery of the first human skeleton, the misnamed 'Red lady', now known to be a ceremonially buried young adult male from around 40,000 years ago⁹. There are 22 total caves around the coast of Gower with evidence of human activity dating to the Early Upper Palaeolithic¹⁰.
- 5.5.3. 2km from the coast of Gower is Cathole Cave, located on the north side of Parc Cwm. There is evidence for irregular human occupation here spanning 30,000 years from the Palaeolithic to Medieval periods, although the site is best known for its Palaeolithic cave art discovered in 2010. In a small niche to the north east of the main gallery around 10.5m from the cave entrance is an engraving thought to represent the head, torso and antlers of a reindeer¹¹.
- 5.5.4. There are preserved areas of buried former land surfaces in the form of peat deposits within the area of Margam Warren (24479) to the north of the PDA.
- 5.5.5. Archaeology from this period is normally represented by chance findspots rather than more substantial remains of in-situ activity such as settlements or burials. Material from the Lower and Middle Palaeolithic is rare on a national scale.
- 5.5.6. There are no known historic assets recorded relating to this period within the PDA or study area.
- 5.5.7. There is assessed to be a medium potential for previously unknown remains of this period to be encountered at the PDA. Although there is a low number of assets dating to this period in the local area, the presence of buried land surfaces in the form of peat deposits to the north of the PDA represents an increased archaeological risk. The local area is likely to have been a waterlogged intertidal zone as evidenced by submerged forests found of the coast of Wales, which is likely to have affected site formation throughout the prehistoric periods. Any remains of this period are likely to be either buried land surface remains in the form of peat deposits, or isolated features and stray artefacts which may have been disturbed through later industrial activity.

MESOLITHIC (8500-4000 BCE)

- 5.5.8. Evidence of Mesolithic activity tends to be represented by lithic findspots, small flakes of flints known as microliths typified this period. Populations still lived an entirely hunter-gather lifestyle, with groups moving round in territories to exploit different seasonally occurring food resources¹².
- 5.5.9. Warmer climate and ensuing changes in vegetation during this period allowed the Mesolithic hunter-gatherers to exploit both land and marine resources. Although communities were transient hunter gatherers, excavations have identified 'task sites' such as those for the processing of food or for making tools¹³. Settlements were more common along the coast in the later Mesolithic period¹⁴.

⁸ Archaeoleg, 2014

⁹ RCAHMW, 2018

¹⁰ The Megalithic Portal, 2004

¹¹ RCAHMW, 2021

¹² Glamorgan-Gwent Archaeological Trust, 2006

¹³ Dyfed Archaeological Trust, 2011

¹⁴ Archaeoleg, 2014

- 5.5.10. Human footprints dating to the Mesolithic period were found at Kenfig Sands, Porthcawl in 2007, embedded in a peat bed. This peat formed from the floor of a vast forest that stretched across the valley which now forms the Bristol Channel, until sea levels rose approximately 8,000 years ago¹⁵.
- 5.5.11. There are no known historic assets recorded relating to this period within the PDA or study area.
- 5.5.12. There is assessed to be a low potential for previously unknown remains of this period to be encountered at the PDA due to the low numbers of assets dating to this period in the local area. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later industrial activity.

NEOLITHIC (4000-2200 BCE)

- 5.5.13. The Neolithic period was a gradual transition towards settlement which facilitated a shift towards agriculture.
- 5.5.14. Wales has much evidence of funerary and ritual activities, such as chambered tombs and cave burials but little of settlement. In South East Wales there have been excavated enclosures at Coed-y-Cymdda and Beech Court Farm, Ewenny, an upland site at Cefn Glas, an occupation site at Ogmore-by-Sea, a structure below a cairn at Sant-y-Nyll, and a hearth and associated finds at Trostrey¹⁶.
- 5.5.15. In the local area, Baglan Bay and Margam Beach have evidence of Neolithic activity including a thin-butted stone axe. It is thought that this represents temporary upland hunting camps occupied as part of seasonal migrations between coastal lowlands and the upland Blaenau¹⁷.
- 5.5.16. Towards the end of the Neolithic period new types of monuments start to appear in the form of standing stones and stone circles. Standing stones are more common, particularly in some areas such as Gower, whereas stone circles are much more uncommon; with only three certain examples of circles are known from the whole region¹⁸.
- 5.5.17. There are no known historic assets recorded relating to this period within the PDA or study area.
- 5.5.18. There is assessed to be a low potential for previously unknown remains of this period to be encountered at the PDA due to the low numbers of assets dating to this period in the local area. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later industrial activity.

BRONZE AGE (2200-700 BCE)

- 5.5.19. During this period people had started to establish permanent settlements. Metal tools first appeared in Wales about 2500 BC, initially made of copper but later moving to bronze¹⁹.
- 5.5.20. Burial practices in Bronze Age Wales moved from communal tombs to burial in round barrows and the inclusion of grave goods. There was also a shift from inhumation to cremation, and in Wales cemetery mounds with multiple burials was common²⁰.
- 5.5.21. From about 1250 BC there was deterioration of the climate with higher rainfall and much lower summer temperatures. This led to an increase in peat formation and thus the abandonment of many upland settlements. This likely led to conflict and changes in social organization, with the earliest hillforts appearing about 800 BC²¹.

¹⁵ The Megalithic Portal, 2011

¹⁶ Archaeoleg, 2003

¹⁷ GGAT, 2022

¹⁸ Glamorgan-Gwent Archaeological Trust, 2006

¹⁹ Cadw, 2022

²⁰ Lynch et al, 2007

²¹ Lynch et al, 2007

- 5.5.22. There are no known designated historic assets recorded relating to this period within the PDA. There are two SAMs dating to this period located within the study area. Ergyd Isaf Round Barrows (GM160 5km north of the PDA) comprises the remains 2 burial cairns, probably dating to the Bronze Age. The largest cairn measures 16.8m in diameter by 1.8m high and has a large central hollow measuring 1.2m deep. This hollow (probably the result of robbing) reveals that the mound is made up of stones and earth. To the north-east of the largest cairn lies a smaller example measuring 7.9m in diameter and 0.9m high. A slight central hollow is surrounded by a stony rim. Both are grass covered and circular in plan. The monument is of national importance for its potential to enhance our knowledge of prehistoric burial and ritual practices.
- 5.5.23. Ty'n-y-Cellar Standing Stone (GM179 2km east of PDA) is an undressed boulder of approximately rectangular section. It measures 1.4m long by 0.9m at the base, increasing to 1.6m long at a height of 0.7m. The top slopes from 2.5m high at the south east to 2.1m at the north west. The monument is of national importance for its potential to enhance our knowledge of prehistoric burial and ritual practices.
- 5.5.24. There are nine non-designated historic assets dating to the Bronze Age period located within the study area. These comprise a recumbent stone on Margam Moors (GGAT00747w 1.4km north east of PDA), three axe heads found on Margam Sands (GGAT01211w 1.8km south east of PDA, GGAT02251w 1.7km south east of PDA, & GGAT02343w 1.7km south east of PDA), and a bucket handle (GGAT02954w 1.6km south east of PDA), a bronze needle (GGAT02957w 1.6km south east of PDA), two bronze axes (GGAT02955w 1.6km south east of PDA), a bronze ring (GGAT02958w 1.6km south east of PDA), and a palstave (GGAT02964w 1.7km south east) all found at Margam Beach.
- 5.5.25. There is assessed to be a low potential for previously unknown remains of this period to be encountered at the PDA due to the low numbers of assets dating to this period in close proximity to the PDA, although there are designated historic assets dating to this period within 5km. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later industrial activity.

IRON AGE (700 BCE- 43 CE)

- 5.5.26. The Iron Age in Wales is characterised by the newly discovered creation of iron and the construction of hillforts²².
The earliest iron objects found in Wales come from Llyn Fawr in the Rhondda Valley. Objects were deposited as votive offerings, including three made of iron: a sword, a spearhead and a sickle dating to about 650BC. Hillforts are particularly numerous in Wales, such as Pen Dinas near Aberystwyth and Tre'r Ceiri on the Llŷn Peninsula, likely due to a marked deterioration in climate. The earliest distinctively Iron Age settlement in Wales is considered to be Castell Odo, a small hillfort near the tip of the Llŷn Peninsula, dating to about 400 BC²³.
- 5.5.27. Roman historians name four main Iron Age tribes in Wales. The northern marches were home to the Deceangli; north Wales the Ordovices; the south west the Demetae; and Glamorgan and Gwent formed the territory of the Silures. A further two smaller tribes were noted on the Western peninsulas, the Octapitae and the Gangani. Settlement evidence indicates a complex system²⁴.
- 5.5.28. There are no known designated historic assets recorded relating to this period within the PDA. There are three SAMs located within the study area. Danish Camp (GM056 5km north east of the PDA) is an Iron Age defended farmstead, scooped into the hillside and with a partially surviving outer bank. The site lies at 220m above OD on ground falling to the west, just outside the north-east boundary wall of Margam deer park. The monument consists of a simple oval enclosure, about 42m long from north to south by 33m wide, though the west side is largely destroyed; the area is about 0.1ha. It is defined by a single bank, best preserved on the east where it is 3.5m wide and 0.7m high, an apparent external ditch probably being merely where material has been scooped out to form the bank. The position of the entrance is uncertain. The monument is of national importance for its potential to enhance our knowledge of late prehistoric agricultural and defensive organisation.

²² Cadw, 2022

²³ Lynch et al, 2007

²⁴ Ritchie, 2018

- 5.5.29. Half Moon Camp (GM477 3.4km north east of PDA) consists of the remains of an earthwork enclosure probable dating to the Iron Age. It is situated at 150m above OD on the southern edge of a spur overlooking Margam Abbey. Oval on plan, the single rampart encloses an area approximately 0.2 of a hectare. The rampart is and is enclosed by a single is best preserved on the north-east, where it is about 9m wide and 1m high. On the south, this has been reduced to a scarp set above a steep natural slope, and the line of defences on this side may have been obscured by slippage. On the west the rampart survives on a similar scale to the north-east section. On the north, the defences are crossed and largely obscured by a modern wall and field bank. The monument is of national importance for its potential to enhance our knowledge of later prehistoric defensive organisation and settlement.
- 5.5.30. Mynydd y Castell Camp (GM162 3.7km north east of the PDA) is the remains of a hillfort. The enclosed area, 2.7ha, is roughly D-shaped with the east side straight and measures 260m north to south by 135m wide. The defences consist of a massive bank or scarp accompanied by a ditch with a counterscarp bank. There is no indication of a revetment. Outside the rampart the ground falls away steeply. At the southern end of the fort natural crags are incorporated in the defensive lines. One entrance is on the south west. At the north east corner of the hillfort modern quarrying has confused the layout of the defences, but it seems likely that an original entrance existed here also. The interior does not seem to have been ploughed, but there are no certain traces of early habitation. The monument is of national importance for its potential to enhance our knowledge of later prehistoric defensive organisation and settlement.
- 5.5.31. There are no known non-designated assets dating to this period located within the study area.
- 5.5.32. There is assessed to be a low potential for previously unknown remains of this period to be encountered at the PDA due to the low numbers of assets dating to this period in close proximity to the PDA. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later industrial activity.

OTHER

- 5.5.33. There are two designated assets dating to the prehistoric period within the study area that are not assigned more specific dates. A camp north of Tonmawr (GM057 5.4km north east of PDA) is the remains of two polygonal enclosures. A camp 530m east of Tonmawr (GM090 5.4km north east of PDA) is the remains of an earthwork enclosure comprising an irregular ring defended by a single rampart.

HISTORIC PERIODS

ROMAN/ROMANO-BRITISH PERIOD (43CE- 410CE)

- 5.5.34. The Roman era in Wales began in 48 AD with a military invasion, a conquest that was completed by 78 AD. Roman rule endured until the region was abandoned in 383 AD. In The south east of Wales they were met by the Silures, although it is not known if this was a single tribe or a confederation. Campaigning by the Roman army against the Silures started around AD 50, when the displaced Catauvellaunian leader Caratacus seems to have made a new base among them. Roman historian Tacitus notes that the Silures were brought under Roman control by Julius Frontinus between AD 74 and 78. It is thought that land was conquered by the Twentieth Legion Valeria Victrix from their fortress in Usk, and from around the middle of the 70s AD from the new fortress that the replacement legion, the Second Augusta, was building at Caerleon²⁵.
- 5.5.35. Caerwent was a tribal capital whose Roman name was *Venta Silurum* (the market place of the Silures), and was transformed into an administrative centre. In the south east a smaller possible administrative centre was Cowbridge, Glamorgan, which has evidence of houses, iron smelting, and a bath house. Small fields or paddocks have been excavated within the hillfort of Caer Dynnaf near Cowbridge, which are thought to be connected with Roman farmsteads. In most areas, Roman occupation is identified by the appearance of goods manufactured using Roman methods²⁶.
- 5.5.36. There are no known historic assets recorded relating to this period within the PDA.
- 5.5.37. There are no designated assets dating to the Roman period located within the study area.

²⁵ Evans, 2018

²⁶ Evans, 2018

- 5.5.38. There are two non-designated assets located within the study area. Two bronze pins (GGAT00819w 1.8km south east of the PDA) were found on foreshore at Margam. The longest is 45.5 cm; whilst the shorter is 40.3cm and slightly curved. The form of their heads relates them to a series of pins originating in Scotland and Ireland during the Romano-British period. There is assessed to be a low potential for previously unknown remains of this period to be encountered at the PDA due to the low numbers of assets dating to this period in the local area. The local area is likely to have remained a waterlogged intertidal zone, which is likely to have affected settlement and agriculture potential in this period. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later agricultural and industrial activity.
- 5.5.39. The Margam Mountain historic landscape (HLW (WGI/MGI) 2.5km north east of PDA) is a strategic location which controlled early routes to West Wales, including the main Roman road linking the Roman forts of Cardiff and Neath. The area displays continuity, density and diversity of human occupation. This was originally concentrated and scattered on the mountain itself, though recently it grew rapidly, forcing itself into the narrow confines of the coastal plain, where the natural topographical limitations and physical constraints at the junction of the Blaenau and Bro of Glamorgan allowed.
- 5.5.40. There is assessed to be a low potential for previously unknown remains of this period to be encountered at the PDA due to the low numbers of assets dating to this period in close proximity to the PDA. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later industrial activity.

EARLY MEDIEVAL PERIOD (410-1066 CE)

- 5.5.41. The Early Medieval period saw fundamental social, political and economic changes that formed later language, landscapes, culture and belief. After the end of the Roman occupation, the eastern core of the territory around the Caerwent became the kingdom of Guenta. The western part of the former civitas territory comprised a series of seven cantrefi ('the seven cantrefws of Glamorgan') named after the sons of an eponymous king Glywysing²⁷.
- 5.5.42. A planned complex of prehistoric and medieval sites are located on Margam Mountain thought to have early medieval elements from the presence of the 'Bodvoc' stone. There are also several Latin- / ogam-inscribed stones in the area. The Medieval Cistercian Abbey has an important group of pre-Norman sculptured crosses. A fragment of early medieval beaker has been found within the park nearby, and there is a cluster of important disused church sites in area.
- 5.5.43. In this period Margam was part of the cwmwd of Tir Iarll (meaning earl's land in English), which also included the modern parishes of Llangynwyd, Betws and Cynffig²⁸.
- 5.5.44. Prior to the 13th century the area was known as *Pen-dâr*, meaning 'the oak summit', an oak upwards of 800 feet in height on the mountain²⁹.
- 5.5.45. There are no known historic assets recorded relating to this period within the PDA.
- 5.5.46. There are two known SAMs recorded relating to this period within the study area. A Sculptured Cross at Llanmihangel Farm (GM345 3.5km south east of PDA) is a once free-standing cross now mounted into a stone wall. Its mounting into the wall hides many of its features. The weathered and water-worn block of Pennant sandstone forms the upper half of a cross-slab which is 0.82m in height and 0.95m wide at the fracture line (corresponding to the waist) tapering to 0.60m at the top; it is 0.25m deep. The decoration on the main face carved in low relief consists of a cross form with widely splayed arms and elongated sunken hollows between the arms. The arms of the cross have a bold edge-moulding and at the lower left hand is part of a ringed hollow. The monument is of national importance for its potential to enhance our knowledge of the organisation and practice of Christianity.

²⁷ Archaeoleg, 2003

²⁸ Davies et al, 2008

²⁹ Lewis, 1849

- 5.5.47. The Margam Inscribed and Sculptured Stones (GM011 3.2km east of PDA) is a collection of 28 stones housed in what was once the village school. The stones range in date from the 6th to 17th centuries, with the largest number dating to the Early Medieval and Medieval periods. The core of the collection was brought together in the grounds of Margam Abbey in the late 19th century and moved to its present home in 1932. The monument is of national importance for its potential to enhance our knowledge of the organisation and practice of Christianity.
- 5.5.48. There is a single non-designated asset dating to the Early Medieval period. A single ringed pin (GGAT03153w 900m south east of PDA) was found on Margam Moors.
- 5.5.49. There is assessed to be a low potential for previously unknown remains of this period to be encountered at the PDA due to the low numbers of assets dating to this period in the local area, although there are historic assets dating to this period within 5km. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later industrial activity.

MEDIEVAL PERIOD (1066CE- 1500CE)

- 5.5.50. The Medieval period saw both expansion and decline in Wales, including depopulation, desertion and dissolution followed by renewal in the 15th and 16th centuries which saw a spate of church expansions and the rise of the gentry³⁰.
- 5.5.51. South East Wales presents a rural environment typical of much of south-western Britain which in most areas is better preserved. The region benefits from good survival of sites and landscapes of both nucleated and dispersed settlement patterns exist. There have been excavations at Deserted Medieval Villages (DMV) at Rhossili and Barry, and other rural sites such as Llanelen and Cefn Drum. Urban excavation has found Medieval remains at Swansea, Monmouth and Trelech, including evidence of trade and shipping³¹.
- 5.5.52. Robert of Gloucester, Earl of Glamorgan, granted lands for the foundation of a Cistercian Abbey at Margam in 1147. This replaced an earlier religious foundation in the area, represented by a large collection of early Christian stones. Most of the nave of the C12 abbey church survives and is now the parish church. The rest of the abbey church and the remaining monastic buildings were rebuilt in Early English style in the early C13, probably in 1203-13 under Abbot Gilbert. Margam Abbey was dissolved by the crown visitors of Henry VIII in 1536³².
- 5.5.53. Place name evidence indicates Early Medieval origins of Margam. *Ma* or *mar* can mean lake or pool (Old English), and *arcan* mean high or height (Irish Scots Gaelic)³³, although it is also thought to be a corruption of *Mawrgan*, the son of Caradoc ab Iestyn, who was great benefactor to Margam Abbey³⁴.
- 5.5.54. Cantrefi a chymydau Cymru (The Cantrefs and Commotes of Wales, Peniarth Manuscript 147³⁵) records the place name of Margam slightly after the end of the Medieval period (1570), but this likely represents a name established within the Medieval period with continued use into later periods.
- 5.5.55. There are no known designated historic assets recorded relating to this period within the PDA.
- 5.5.56. There is a single known non-designated historic asset recorded relating to this period within the PDA. The Merthyr Mawr, Kenfig and Margam Burrows historic landscape (HLW (MGI) 1) are accumulations of wind blown sand have formed considerable areas of littoral dunes at a number of points along the South Wales coast. Historical evidence indicates that the processes of be-sandment were very active in the later medieval period, during the 13th to 15th centuries, with a deterioration of climate and a noticeable increase in be-sanding as the result of storms, higher rainfall and abnormal tides, all occurring in combination. These conditions led to the erosion of coastal sand dunes and the movement of material inland. Merthyr Mawr, Kenfig and Margam Burrows are two discrete areas of dunes situated on the west coast of Glamorgan and they present the supreme examples in South Wales of the significant impact natural forces had on earlier societies. Inevitably, two landscapes are represented, the one at Margam and Kenfig as the be-sanded landscape that essentially derived from adverse weather conditions and tidal phenomena in the Middle Ages and perhaps earlier, and

³⁰ Archaeoleg, 2010

³¹ Archaeoleg, 2017

³² Cadw, 200 list entry

³³ ARCHI Information Systems, 2021

³⁴ Lewis, 1849

³⁵ RCAHMW, 2022

the other at Merthyr Mawr as a generally more ancient landscape with archaeological sites completely buried by these natural forces.

- 5.5.57. There are thirteen designated assets and six non-designated assets located within the study area, outlined in Table 5 below.

Table 5. Historic assets dating to the Medieval period located within study area

ID	Name	Status	Easting	Northing
GM545	Margam Medieval Bath House	SAM	280306	186925
GM042	Kenfig Castle & Medieval Town	SAM	280103	182564
GM036	Pyle Incised Stone	SAM	282239	182326
GM005	Margam Abbey	SAM	280185	186252
GM163	Hen Eglwys Chapel and Defended Enclosure	SAM	280123	186522
11248	Church of St Mary Magdalen, Pyle with Kenfig.	II*	280662	181947
14148	St Mary's Abbey Church	I	280152	186291
14149	Ruins of Chapter House and Vestibule of St Mary's Abbey	I	280197	186267
14150	Ruined Undercroft at St Mary's Abbey	I	280193	186235
14155	Hen Eglwys	II*	280123	186522
14176	Llanmihangel Mill	II*	281921	182354
19173	Churchyard Cross in St James' churchyard, Pyle	II	282557	182629
23274	Monastic Baths	II*	280304	186925
413706	Margam Burrows	Non-designated	278373	183132
GGAT01062m	St Thomas' Chapel, Kenfig	Non-designated	279000	183000
GGAT01063m	Guildhall, Cynffig	Non-designated	279000	183000
GGAT03138w	Findspot, Margam	Non-designated	277000	185200
GGAT03154w	Cauldron Foot, Margam Moors	Non-designated	277400	184100
HLW (MGI) 1	Merthyr Mawr, Kenfig & Margam Burrows	Non-designated	282434.2	179683.5

- 5.5.58. There is assessed to be a high potential for previously unknown remains of this period to be encountered at the PDA due to presence of a potential Medieval historic landscape located within the PDA, in addition to the moderate number of assets dating to this period in the local area. Any remains of this period are likely to be confined to isolated features and stray artefacts which may have been disturbed through later industrial activity.

POST-MEDIEVAL PERIOD (1500-1900CE)

- 5.5.59. The Post-Medieval history of the PDA can be traced using historic mapping.
- 5.5.60. No tithe mapping or apportionments were made for the parish of Margam as the area had belonged to an abbey before the dissolution of the monasteries, however the 1813 Ordnance Survey Drawings (OSD 178 1:31608) by Thomas Budgen showed the PDA (Illus 25). The PDA was shown largely covered by Margam Burrows, with some agricultural fields to the north east and a small area of marsh to the east of the PDA.
- 5.5.61. 1877 1:2500 OS mapping (Illus 26) shows some sandy areas across the PDA. The parliamentary borough boundary of Kenfig, contributory to Swansea bisected the site roughly through the middle, passing through the northern extent of Area B. The eastern boundary of the PDA roughly conforms to a footpath with an area of marsh in the centre of this boundary. The highest point to which ordinary tides flow was noted at the south eastern point of the PDA, with a high water mark of ordinary tides was also noted, roughly along the western boundary of the PDA.
- 5.5.62. 1899 1:2500 OS mapping (Illus 27) noted that the high water mark of ordinary tides had shifted further west, and the marshy area on the eastern boundary of the PDA had receded to the east.

- 5.5.63. There are 80 known designated assets and ten non-designated assets recorded relating to this period within the study area, detailed in Table 6 below.

Table 6. Historic assets dating to the Post-Medieval period located within the study area

ID	Name	Status	Easting	Northing
GM493	Bryndu Coke Ovens	SAM	283895	183491
GM449	Leat & Dam at Llanmihangel Mill	SAM	282095	182414
11217	Sker House	I	279529	179838
11219	Prince of Wales Inn, also known as Ty Newydd	II	280365	181801
11227	Church of St James, Pyle with Kenfig	I	282558	182645
11247	Marlas House	II	281891	182235
11334	Ty-maen	II	281966	180250
11349	The Hall Farm	II*	282056	181628
11360	Ty-yr-ychen, also known as Sker House farm buildings.	II	279638	179877
14151	Almshouses	II	280071	186318
14152	Margam Orangery	I	280118	186238
14153	Ivy Cottage including Facade of Former Banqueting House	I	280081	186287
14157	Barn at Eglwys Nunydd	II	280304	184901
14158	Old Park	II*	280698	185027
14160	Church of St Theodore	II*	277255	189098
14161	Churchyard Walls and Gate Piers to St Mary's Abbey Church	II	280110	186307
14162	Kitchen Garden Walls including Vinery Glasshouse	II	280031	186342
14163	Terrace Walls and Screen at Margam Castle	II*	280447	186250
14164	Middle Lodge	II	280015	186374
14165	Cwm Cottage	II	279852	186116
14166	Margam Cottage	II	279888	186115
14167	2 Grove Cottages	II	279846	186300
14168	Piers and Gates at East Lodge and Flanking Walls	II	281463	185145
14169	Gateway and Quadrant Walls Leading to Twyn yr Hydd	II	281044	185098
14170	Margam Castle	I	280494	186284
14172	Beulah Calvinistic Methodist Chapel	II*	278373	187422
19171	Pyle Calvinistic Methodist Chapel, Capel y Pil, and schoolroom, with forecourt railings.	II*	282366	181605
19172	Group of 4 chest tomb in churchyard of St James, Pyle	II	282562	182639
19174	Morgan monument in St James' churchyard, Pyle	II	282537	182640
19175	Chest tomb in the graveyard of the Church of St Mary Magdalen, Pyle with Kenfig.	II	280641	181951
19178	Garden gateway at Ty-maen	II	281990	180252
19179	Pool Farmhouse	II	280338	181537
19180	Mile marker on A48, Pyle to Margam Road	II	282602	182836
19182	Two chest tombs set against the E churchyard wall, Church of St James.	II	282577	182642
19183	Two chest tombs in the churchyard, St James Church	II	282548	182629

ID	Name	Status	Easting	Northing
19184	Rees Williams monument in the churchyard, St James church.	II	282568	182642
22806	Gibeon Chapel	II	277565	188921
22808	Milepost	II	277650	188564
23154	Former Harbour House	II	276066	189031
23155	Harbour Watch-Tower	II	275145	188593
23248	Holy Cross Church	II	277548	189515
23253	Dyffryn Chapel	II	277232	188964
23262	Llanmihangel	II*	281558	182866
23263	Twyn yr Hydd	II	281090	185277
23264	Citrus House	II	279984	186276
23265	Retaining Wall adjoining Citrus House	II	280014	186294
23266	Stone Steps in Terraced Garden	II	280422	186275
23267	Terrace with Pools and Flower Beds Fronting Margam Orangery	II*	280118	186217
23268	Turbine House	II	280266	186048
23269	Stones Museum	II	280139	186349
23271	Pair of Gate Piers to the Former Margam House	II	280066	186041
23272	Ornamental Pool	II	279992	186223
23273	Former Changing Room	II	279974	186251
23275	Broadwalk Steps	II	280272	186260
23276	Arch over Culvert	II	280260	186320
23277	Farm Building at Twyn yr Hydd	II	281148	185316
23278	Service Buildings including Courtyard Walls at Margam Castle	II*	280552	186290
23279	Kitchen Garden Wall and Glass House at Twyn yr Hydd	II	281128	185322
23280	Garden Wall at Twyn yr Hydd	II	281096	185258
23281	Entrance to Twyn yr Hydd and Flanking Walls	II	281160	185190
23282	Vestry at Beulah Chapel	II	278370	187431
23283	Gates, Piers and Railings at Beulah Chapel	II	278362	187421
23284	Milepost at Tollgate Park	II	278407	187268
23285	Milepost near Margam Park Entrance	II	279911	185862
23286	Milepost near Old Park	II	280770	185287
23287	Milepost near Cae Garw	II	281893	184141
23288	Bridge near Llanmihangel Mill	II	282002	182324
23289	Granary at Ty'n y Cellar	II	280379	183450
23290	Former Cow-house at Ty'n y Cellar	II	280390	183485
23291	Ty'n y Cellar and adjoining Barn	II	280404	183456
23292	Cart Shed, Stable and Cow-House at Ty'n y Cellar	II	280359	183464
23293	3 Grove Cottages	II	279839	186302
87691	Morfa Bach Access Underbridge (West)	II	279834	183110
87692	Morfa Bach Access Underbridge (East)	II	279952	183040
87693	River Black Underbridge	II	281389	182533
87694	Mill Bridge Underbridge	II	281851	182311
87695	Marlas Road Overbridge	II	281994	182241
87696	Pyle Road Overbridge	II	282794	181896

ID	Name	Status	Easting	Northing
PGW(Gm)45(NEP)	Talbot Memorial Park, Port Talbot	RPG	277327.3	189136.5
PGW(Gm)52(NEP)	Margam Park	RPG	281010.2	186166.8
401428	Kenfig Burrows;Kenfig National Nature Reserve	Non-designated	279120	182870
273817	Sunda	Non-designated	277946	182661
402096	South Wales Railway;Great Western Railway South Wales Main Line	Non-designated	278900	185000
240827	Unnamed Wreck	Non-designated	277946	182661
240725	Coin Find, Margam Beach	Non-designated	277503	184093
GGAT01863w	Margam Sands	Non-designated	277000	185200
GGAT02565m	Unknown Wreck	Non-designated	277800	182900
GGAT03132w	Findspot, Margam	Non-designated	277000	185220
GGAT03139w	Wreck, Margam	Non-designated	277000	185300
GGAT08606w	Morfa Mawr Farm, Margam Moors	Non-designated	277592	184797

- 5.5.64. There is assessed to be a medium potential for previously unknown remains of this period to be encountered at the PDA due to the moderate number of assets dating to this period in the local area. Any remains of this period are likely to be associated with local industrial activity in this period.

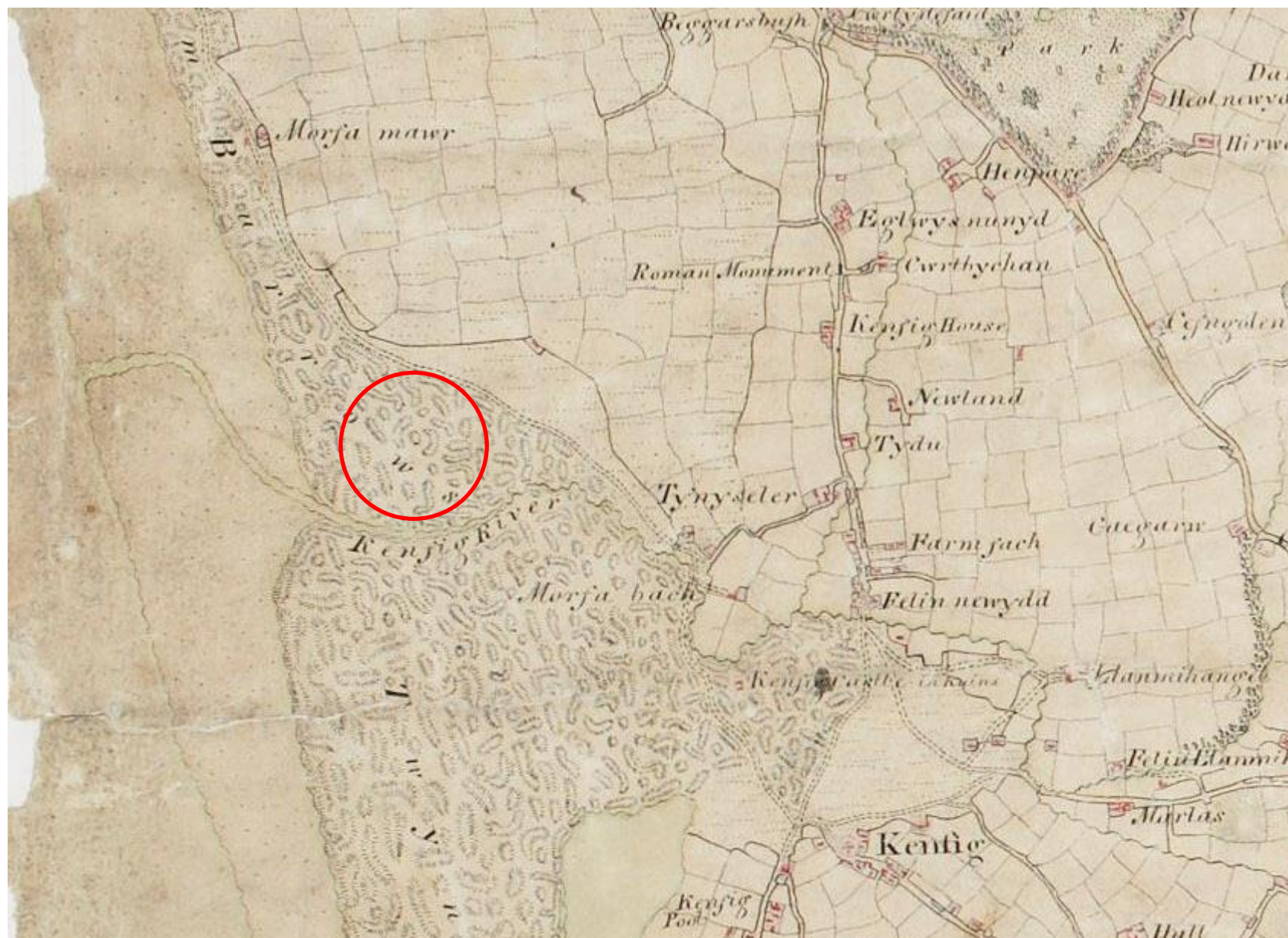
MODERN (1900CE - PRESENT)

- 5.5.65. 1921 1:10560 OS mapping (Illus 28) no longer marked the parliamentary borough boundary of Kenfig. There were areas of defined sand dunes across both Area A and Area B. The high water mark of ordinary tides had moved further east roughly in line with the PDA western boundary again. There was also an area of trees established in the eastern extent of the PDA.
- 5.5.66. Aerial photography from 1947 showed the PDA as a large area of scrubland with extensive sand dunes on the site, likely part of Margam Burrows.
- 5.5.67. 1952 1:10560 OS mapping (Illus 29) shows that the northern part of the PDA, including Area A, was covered by trees, however the sand dunes previously noted in this area were also present. Where previously was noted as the high water mark for ordinary tides had now become the high water mark of medium tides, suggesting a drop in the average height of the tides in the area.
- 5.5.68. 1965 1:10560 OS mapping (Illus 30) shows that the footpath along the eastern boundary of the PDA was no longer extant. Fewer sandy areas were noted in the southern area of the PDA in general, but an area of Margam Sands appeared to extend into the location of Area B.
- 5.5.69. Analysis of modern LiDAR imagery (Illus 7) demonstrates that the area of the PDA is notable higher than land to the east and west, acting as a natural barrier. The area currently utilised as landfill is higher still, reflecting its usage which would result in built up land height. Land height in Area A and Area B undulates, likely from the shifting sand dunes located here.
- 5.5.70. There are no known designated assets recorded relating to this period within the PDA.
- 5.5.71. There are two non-designated assets dating to the Modern period located within the PDA. A WWII heavy anti-aircraft battery (GGAT02564m) is recorded adjacent to the east of Area A, and a quadrant tower associated with RAF Stormy Down (GGAT07406m) is located within Area B. This was recorded in HER data as a tall rectangular two-storey concrete quadrant tower. The front elevation had an entranceway and small rectangular window, with a larger rectangular window located on the floor above. The side walls on both floors had small rectangular windows. The building had lost all of its internal fitting and had shifted to the south of its original location down a sand dune. The tower was built to observe the bombing runs on the Margam Sands bombing range and report back to the aircraft on their accuracy. Both assets were found to be no longer extant during the site walkover, only some loose concrete remains in the vicinity of each asset could be located during the site visit.
- 5.5.72. There are thirteen known designated assets and nine non-designated assets recorded relating to this period within the study area, detailed in Table 7 below.

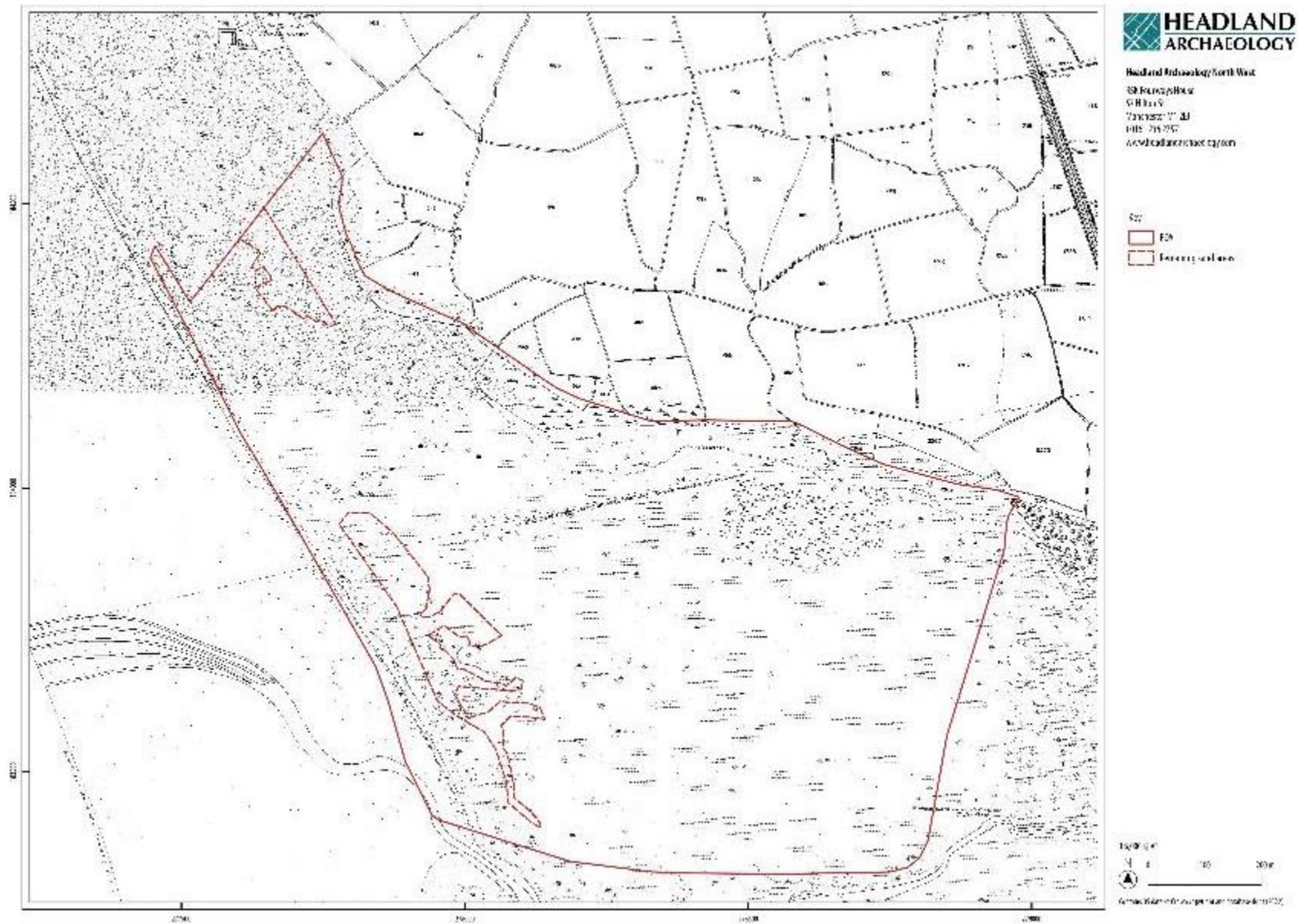
Table 7. Historic assets dating to the Modern period located within the study area

ID	Name	Status	Easting	Northing
GM488	Chain Home Low Radar Station, Margam	SAM	279332	187081
19176	Kenfig Hill War Memorial	II	283707	182927
19177	The Talbot Institute	II	283685	182955
22807	Carnegie Free Library	II	277352	188964
23152	Harbour Court	II	276687	189509
23255	Gateway to Talbot Memorial Park	II	277279	189025
23256	War Memorial	II*	277319	189063
23257	Fountain in Honour of John Hopkin Davies	II	277358	189063
23258	Bandstand	II	277371	189116
23259	Lodge 2, Talbot Memorial Park	II	277290	189023
23260	Lodge 1, Talbot Memorial Park	II	277279	189035
23270	War Memorial	II	280102	186291
87732	Margam Crematorium	II*	279537	185580
401297	Margam Hump Yard, Margam Moors	Non-designated	279540	183100
421807	Margam Sorting Sidings Signal Box, Margam Traction Maintenance Depot	Non-designated	279008	184131
421806	Margam Abbey Works East Signal Box, Margam Abbey Works	Non-designated	279017	184671
414947	Eglwys Nunydd Reservoir, Margam	Non-designated	279440	184810
GGAT02564m	Battery, Margam Moors	Non-designated	277800	184300
GGAT03157w	Remains of structure, Margam Moors	Non-designated	277800	183700
GGAT03158w	Modern concrete structure, Margam Moors	Non-designated	277400	184400
GGAT07406m	Quadrant Tower, RAF Stormy Down	Non-designated	278003	183656
GGAT07407m	Possible observation post, RAF Stormy Down	Non-designated	278080	182680
GGAT08049w	Martin B-26 Marauder 42-96192 crash site	Non-designated	277114	184601
GGAT09017w	Small arms range, Lower Mother	Non-designated	277880	185400

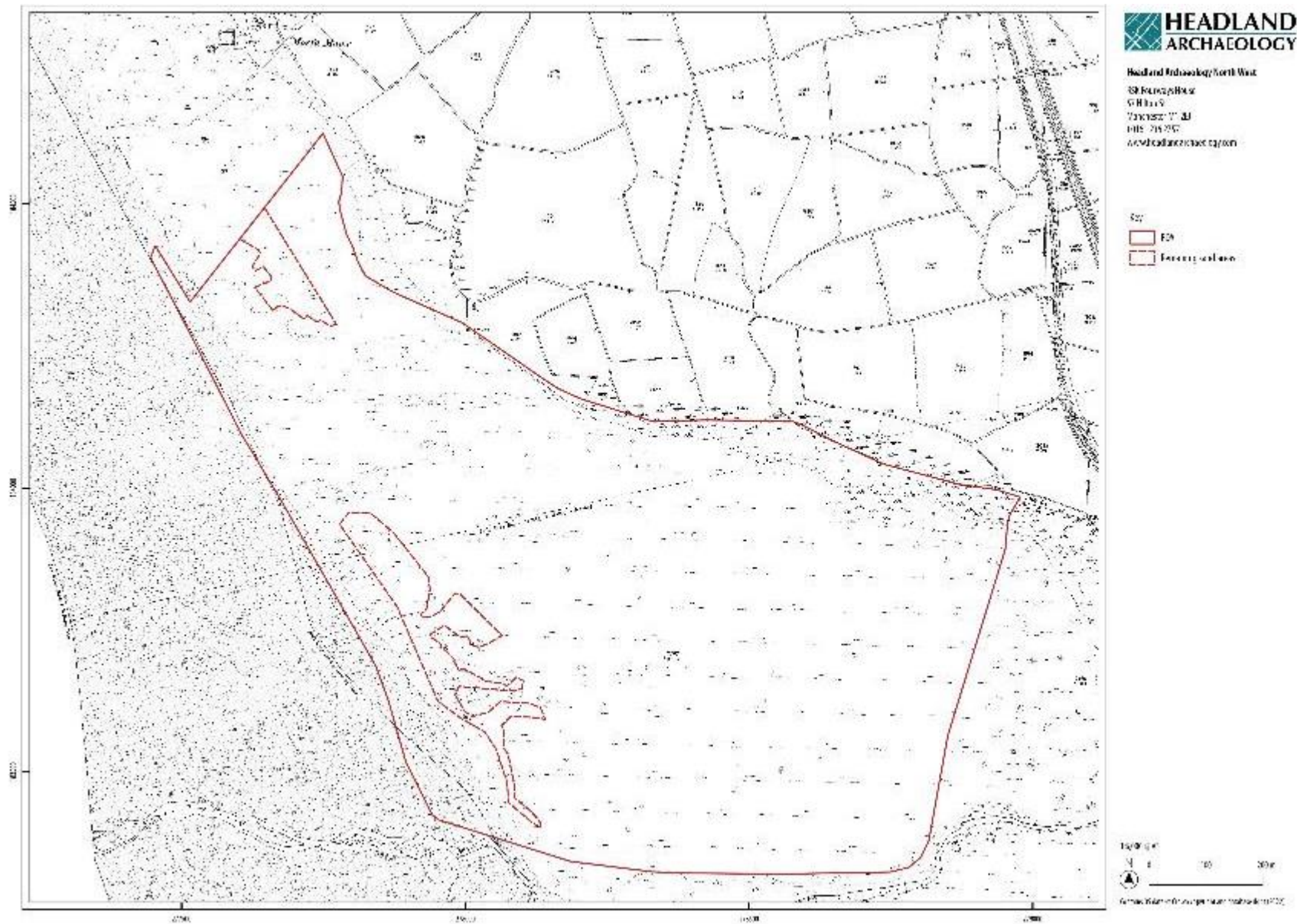
- 5.5.73. There is assessed to be a medium potential for previously unknown remains of this period to be encountered at the PDA due to the location of two non-designated assets dating to this period being present within the PDA. Due to degraded nature of the remains of these assets it is likely that scattered concrete could be located across the PDA, including both Area A and Area B. Any remains are likely to be associated with the military presence demonstrated by these assets.



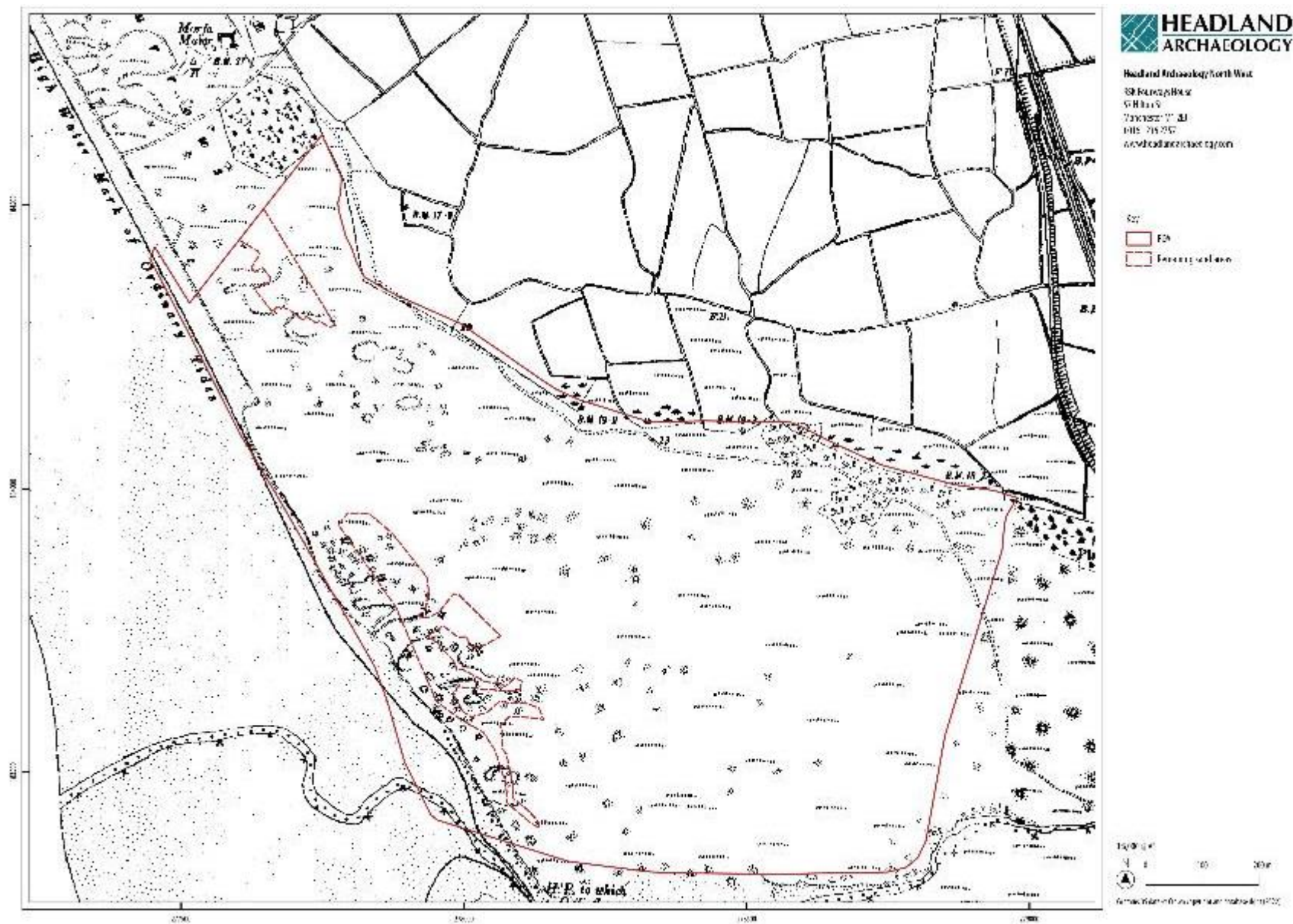
Illus 25. 1813 Thomas Budgen OSD 1:31608 map extract, approximate site location in red



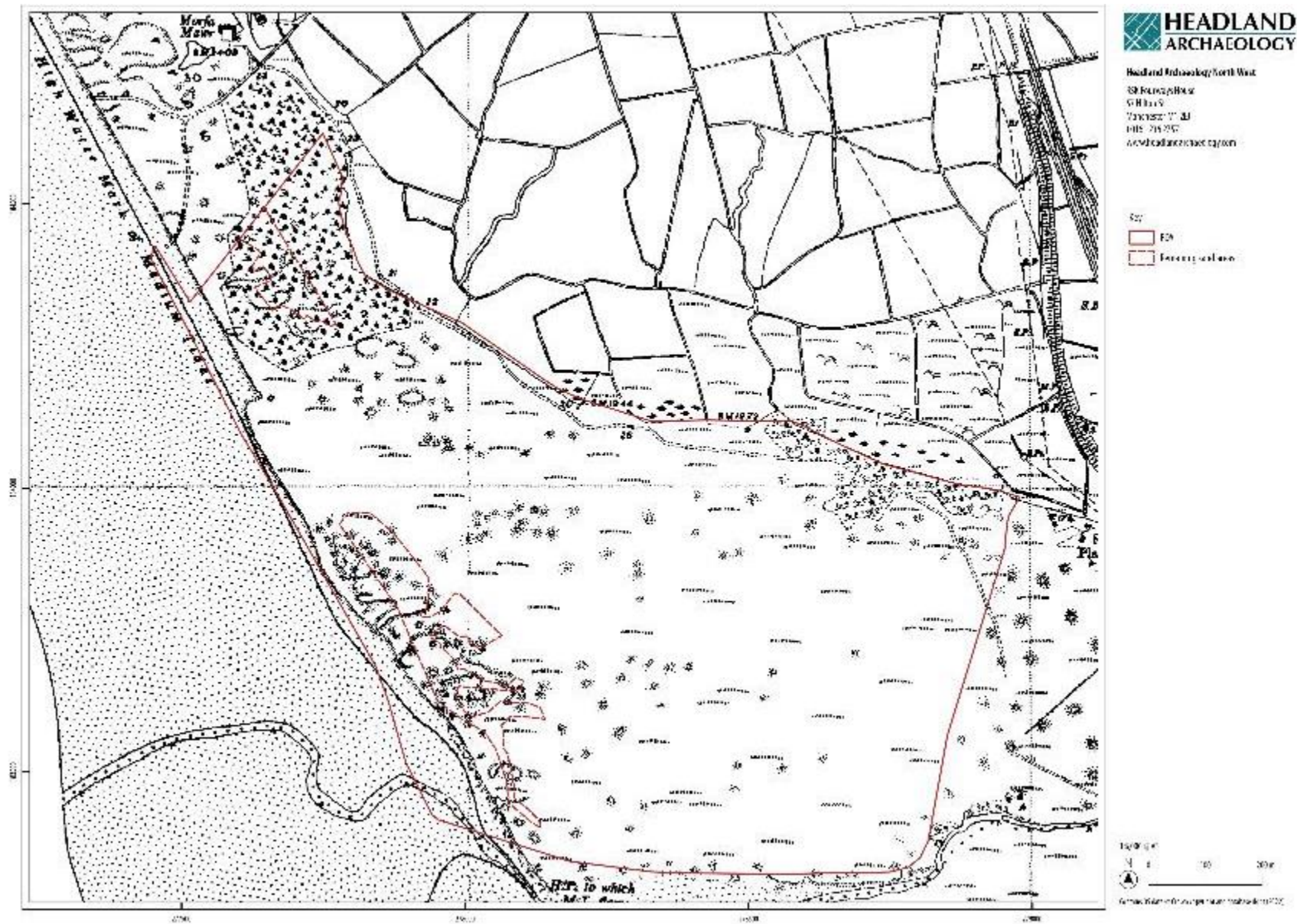
Illus 26. 1877 County Series 1:2500 OS map extract



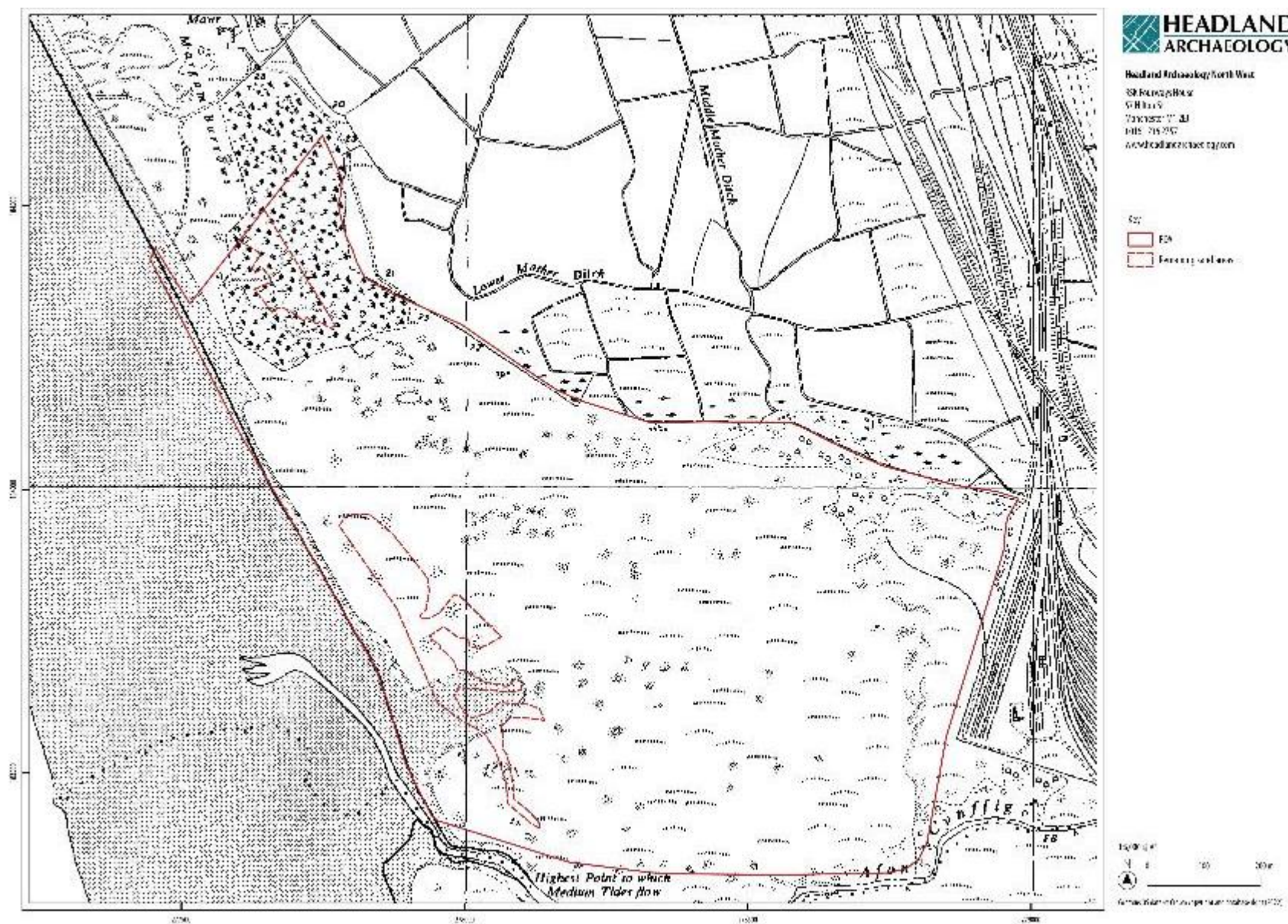
Illus 27. 1899 County Series 1:2500 OS map extract



Illus 28. 1921 National Grid 1:10560 OS map extract



Illus 29. 1952 National Grid 1:10560 OS map extract



Illus 30. 1965 National Grid 1:10560 OS map extract

6. STATEMENT OF SIGNIFICANCE AND IMPORTANCE

6.1. KNOWN AND POTENTIAL HISTORIC ASSETS WITHIN THE PDA

6.1.1. This assessment identifies that there is:

- A low potential for below ground archaeological remains to be present from the Mesolithic to Early Medieval periods of up to high importance;
- A medium potential for archaeological remains dating to the Post-Medieval and Modern periods of up to low importance; and
- A high potential for archaeological remains dating to the Medieval remains of up to high importance within the PDA.

6.1.2. There are three non-designated historic assets located recorded on the GGAT HER within the PDA:

- A heavy anti-aircraft battery (GGAT02564m) adjacent to the southern extent of Area A;
- A tall rectangular two-storey concrete quadrant tower associated with RAF Stormy Down (GGAT07406m) within Area B; and
- Merthyr Mawr, Kenfig & Margam Burrows (HLW (MGI) 1), an Historic Landscape of medium importance covering Area B and a small part of Area A.

6.1.3. Neither the battery nor quadrant tower were located during the site visit, however various concrete remnants were observed in these areas during the walkover. Due to this they are considered assets of Low (Local) importance.

6.2. SETTING OF HISTORIC ASSETS IN THE STUDY AREA

6.2.1. The historic landscape of Merthyr Mawr Warren (part of HLW (MGI) 1) is located on the north west side of the estuary of the River Ogmore. Over the last century, the dunes here have produced a diverse range of archaeological material indicating occupation and activity from the Mesolithic period to the recent past, through the recurrent exposure of buried archaeological features and surfaces caused by the movement of sand. The archaeological potential of the dunes is extremely high, since records of finds suggest occupation sites of the Mesolithic, Neolithic, early Bronze Age (represented by cist graves and tumuli) and Iron Age (with evidence of metalworking). In historic times, medieval occupation is attested by finds of pottery, walling, shell middens, cultivation ridges, roads, boundary stones, and a windmill of possible 15th century date sited on top of the dunes. Movement of the dunes continues and Candleston Castle, a ruined, small, fortified manor house originally built mainly in the late 14th century, was occupied into the 19th century, but now stands up against the eastern edge of the dunes with its land completely buried in sand.

6.2.2. Kenfig and Margam Burrows (also part of HLW (MGI) 1) lie about 7km north west of Merthyr Mawr, on the coastal plain between the sea and Margam Mountain to the north, and they have retained their distinctive and striking appearance despite having been bisected by modern rail and motorway communication systems on their eastern fringes. Historically and archaeologically, the Kenfig area is rich in the evidence of the past, and includes the be-sanded castle and fortified borough of Kenfig, which have been described as the Pompeii of Britain. Although Kenfig was probably a Norman foundation, other archaeological finds of the prehistoric, Roman and Dark Age periods from the immediate area indicate that it was favoured for settlement from an early date.

6.2.3. Approximately 3km to the north east of the PDA there is a group of 36 designated assets comprising five Scheduled Ancient Monuments, five grade I listed buildings, five grade II* listed buildings, 19 grade II listed buildings, one Registered Park and Garden, and one Conservation area (Group 1, as outlined in Table 4). This area is a multi-period landscape of outstanding historical importance and includes significant remains from the prehistoric, early medieval, medieval and post-medieval periods. The area formed a significant ecclesiastic estate with a medieval Cistercian Abbey church and cemetery which was later converted to an important and influential post-medieval gentry estate and deer and Landscape Park with pleasure grounds, gardens and kitchen garden. The area is an important relict archaeological landscape including pre-historic, medieval and post-medieval settlement/fields and pre-historic 'defensive' features.

- 6.2.4. The heavy anti-aircraft battery (GGAT2564m) and RAF quadrant tower (GGAT07406m) are located within the both the PDA and the boundary of the historic landscape of Merthyr Mawr, Kenfig and Margam Burrows (HLW (MGI) 1). Due to the assets origins and purpose the original setting of these assets would have played an important part of the siting for the both the anti-aircraft battery and tower, with high importance placed on the strategic advantages of the local vicinity. The area of Morfa Mawr is a vantage point which provides a wide view of the skies and both out to sea and across the bay towards Swansea. Despite the potential for shifting sands in the area, it was deemed advantageous enough in other areas to warrant the construction of both assets. The anti-aircraft battery and RAF tower represent a strategic approach to the defence of Swansea and the local area against potential air raids during WWII.

7. PROPOSED DEVELOPMENT

- 7.1.1. Mineral planning permission (Ref. 274/270/73) was initially granted for the site on 29 August 1973 for the extraction of sand and tipping of industrial waste. This planning permission was granted for the proposed operations subject to 13 planning conditions.
- 7.1.2. In 2002, following new Landfill Regulations, an updated license was applied for to incorporate the new requirements. A new set of planning conditions was formulated by the local planning authority. Clause 27 of the new mineral mining license outlines requirements for archaeology and built heritage as follows:
- 'Sand extraction shall not take place on the areas identified in Lilac on Drg. 317 Figure 1.3 of the Environmental Statement until the applicant or their agents or successors in title has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to the Local Planning Authority and approved in writing.'*
- 7.1.3. It is understood that the current proposal is to remove sand from Area B, located to the east of the hazardous landfill, and Area A, to the north of the hazardous landfill area, and use this for landfill cover on the site.
- 7.1.4. The location of the proposed extraction areas is shown in Illus 2.

8. PREDICTED IMPACTS OF THE PROPOSED DEVELOPMENT

8.1. DIRECT IMPACTS

- 8.1.1. The assessment presented in this report has considered the known archaeological and historic resource within and surrounding the PDA in order to establish the potential constraints and implications for sand extraction.
- 8.1.2. Direct impacts upon buried archaeological remains have the potential to occur during development as a result of intrusive groundworks. The development proposals comprise sand extraction which will remove any previously unknown buried archaeological remains within its footprint. Activities which may have an impact upon buried archaeological remains include any areas of bulk excavation and topsoil stripping.
- 8.1.3. Development activities within the PDA as described above have the potential to truncate or remove buried archaeological remains, resulting in a direct impact on these assets.
- 8.1.4. There are three non-designated historic assets recorded on the GGAT HER located within the PDA: a heavy anti-aircraft battery (GGAT02564m), a quadrant tower (GGAT07406m) and Merthyr Mawr, Kenfig & Margam Burrows Historic Landscape (HLW (MGI) 1).
- 8.1.5. Both the RAF quadrant tower (GGAT07406m) and Merthyr Mawr, Kenfig & Margam Burrows Historic Landscape (HLW (MGI) 1) are located within proposed sand extraction areas and as such could be directly impacted by the proposed sand extraction. A heavy anti-aircraft battery (GGAT02564m) is adjacent to Area A, however due to remnants of concrete in the surrounding area, remains of this asset may be present within the PDA, and as such may be impacted by the proposed sand extraction.
- 8.1.6. This assessment identifies that there is a low potential for below ground archaeological remains to be present from the Mesolithic to Early Medieval periods, a medium potential for archaeological remains dating to the Palaeolithic, Post-Medieval and Modern periods, and a high potential for archaeological remains dating to the Medieval remains within the PDA. Any previously unknown archaeological remains encountered during the sand extraction process would be impacted by the proposals.

8.2. SETTING IMPACTS

- 8.2.1. Setting impacts upon historic assets in the area surrounding the PDA may occur as a result of the proposed development causing visual or other sensory changes (such as noise, light, movement) within their settings, such that our ability to appreciate the significance of the asset as adversely (or beneficially) affected.
- 8.2.2. The setting of a heavy anti-aircraft battery (GGAT02564m) and a quadrant tower (GGAT07406m), non-designated assets of low importance located within the PDA, has the potential to be adversely affected by the proposed sand extraction, however, due to the state of preservation of these assets observed during the site walkover, the magnitude of this impact is considered low.
- 8.2.3. Merthyr Mawr, Kenfig & Margam Burrows Historic Landscape (HLW (MGI) 1), a non-designated asset of medium importance located within the PDA, has the potential to be adversely affected by the proposed sand extraction. As the nature of the proposed development is similar in nature to the surrounding area, which is already in use as both hazardous and non-hazardous landfill, the impact on the setting of this asset is assessed to be medium to low.
- 8.2.4. Approximately 3km to the north east of the PDA there is a group of 36 designated assets comprising five Scheduled Ancient Monuments, five grade I listed buildings, five grade II* listed buildings, 19 grade II listed buildings, one Registered Park and Garden, and one Conservation area (Group 1, as outlined in Table 4). Intervisibility between these assets and the PDA was assessed during the site walkover, and it was established that visibility was only possible from the tallest sand dunes and was obscured by trees in many areas. Due to the distance and intermittent screening of these assets minimising potential setting impacts, and the nature of the proposed development being similar in nature to that already present in the local vicinity, the magnitude of impact on Group 1 designated assets is considered to be low.

8.3. HISTORIC LANDSCAPE CHARACTER

- 8.3.1. The development proposal is for industrial extraction land use, located alongside existing current and historical industrial and agricultural land-use. The proposed development represents a change to the PDA's character, with new areas of sand extraction alongside extant landfill.

9. RECOMMENDATIONS FOR FURTHER ASSESSMENT

9.1. POTENTIAL DIRECT IMPACTS

- 9.1.1. There are three non-designated historic assets located recorded on the GGAT HER within the PDA:
- A heavy anti-aircraft battery (GGAT02564m) adjacent to the southern extent of Area A;
 - A tall rectangular two-storey concrete quadrant tower associated with RAF Stormy Down (GGAT07406m) within Area B; and
 - Merthyr Mawr, Kenfig & Margam Burrows (HLW (MGI) 1), an Historic Landscape of medium importance covering Area B and a small part of Area A.
- 9.1.2. Further survey and a photographic record may be required to provide a record of the remains of these assets prior to the commencement of sand extraction.
- 9.1.3. This assessment identifies that there is a low potential for below ground archaeological remains to be present from the Mesolithic to Early Medieval periods, a medium potential for archaeological remains dating to the Palaeolithic, Post-Medieval and Modern periods, and a high potential for archaeological remains dating to the Medieval remains within the PDA.
- 9.1.4. Based on the likelihood of buried archaeological remains being present within the PDA and their importance, the potential direct impacts upon known historic assets arising from the proposed development are not considered to be sufficiently significant to represent a likely constraint on development consent.
- 9.1.5. It is likely that the local authority will require further assessment of the PDA's archaeological potential and mitigation of the development impact as necessary and appropriate. Such works should be proportionate to the importance of the remains and significance of the impacts, and in accordance with the requirements of TAN24
- 9.1.6. A programme of non-intrusive and/or intrusive evaluation may be recommended by the LPA in order to inform these conclusions further in advance of any ground-breaking activity. It may be possible to confine such evaluation within the proposed sand extraction site with an intermittent archaeological watching brief on any intrusive groundworks as outlined above.
- 9.1.7. Any such works should be conducted by a suitably qualified archaeological organisation in accordance with a written specification agreed in advance with the Local Planning Authority.

9.2. POTENTIAL SETTING IMPACTS

- 9.2.1. The setting of a non-designated heavy anti-aircraft battery (GGAT02564m) and quadrant tower (GGAT07406m) has the potential to be subject to an impact of low magnitude.
- 9.2.2. The setting of an historic landscape Merthyr Mawr, Kenfig & Margam Burrows Historic Landscape (HLW (MGI) 1) has the potential to be subject to an impact of medium to low magnitude.
- 9.2.3. The setting of Group 1 designated assets has the potential to be subject to an impact of low magnitude.
- 9.2.4. It is anticipated that further detailed setting assessment may be necessary during design of the proposed development. The use of bunding may help to minimise the visual impact of the sand extraction as viewed from the historic landscape.

10. DISCUSSION AND CONCLUSIONS

- 10.1.1. This desk-based assessment has considered the likely impact that future development would have on potential below-ground archaeological remains within the PDA, and the setting of historic assets within the study area, in accordance with planning policy and guidance.
- 10.1.2. It is intended that this report contains sufficient objective data to enable an informed and reasonable decision to be made regarding whether further investigation and mitigation is required at the PDA, in consultation with the local planning authority archaeological advisors.
- 10.1.3. It is not anticipated that proposals to develop the PDA should represent a conflict with legislation or national or local planning policies. The likely development impacts are considered to be of a level of significance that they could be adequately mitigated through a staged programme of impact assessment and archaeological investigation. The need for, scope and scale of such works is suggested below for agreement with the LPA.
- 10.1.4. It is likely that the local authority will require further assessment of the proposed development's settings impact and archaeological potential.
- 10.1.5. In accordance with the requirements of TAN24 any subsequent mitigation should be proportionate to the importance of the remains and significance of the impacts as determined through evaluation.
- 10.1.6. A programme of non-intrusive and/or intrusive evaluation may be recommended by the LPA in order to inform these conclusions further in advance of any ground-breaking activity. It may be possible to confine such evaluation within the proposed sand extraction site with an intermittent archaeological watching brief on any intrusive groundworks as outlined above.
- 10.1.7. Any such works should be conducted by a suitably qualified archaeological organisation in accordance with a written specification agreed in advance with the Local Planning Authority.

POTENTIAL SETTING IMPACTS

- 10.1.8. The Local Plan states that development affecting historic assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials, and architectural detail. It is possible that the use of bunding may help to minimise the visual impact of the sand extraction as viewed from the historic landscape.

GLOSSARY

DEFINITIONS (TAN 24, ANNEX D: GLOSSARY OF TERMS)

Term	Definition
Designated historic asset	A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site or Conservation Area designated as such under the relevant legislation.
Historic asset	An identifiable component of the historic environment. It may consist or be a combination of an archaeological site, a historic building or area, historic park and garden or a parcel of historic landscape. Nationally important historic assets will normally be designated.
Listed Building	A building of special architectural or historic interest which is included in a list compiled or approved by the Welsh Ministers.
Non-designated historic asset	Assets identified by the local planning authority or national registers for the historic environment which have no formal designation but are considered to have a degree of significance meriting consideration in planning decisions. These can include locally listed buildings, information on sites held by the relevant Historic Environment Record.
Archaeological site	A place or group of physical sites in which evidence of past human activity is preserved; the place where a historic asset is located.
Significance:	The sum of the cultural and natural heritage values of a place, often set out in a statement of significance.
Significant	Extensive or important enough to merit attention.
Setting	The setting of a historic asset includes the surroundings in which it is understood, experienced and appreciated, embracing present and past relationships to the surrounding landscape. Its extent is not fixed and may change as the asset and its surroundings evolve. Setting is not itself a historic asset, though land within a setting may contain other historic assets.

TERMS

Term	Definition
Artefact	An item of archaeological interest
Baseline	'Baseline conditions' are the environmental conditions in existence just before the occurrence of an impact – i.e. they are the conditions that would be affected.
Bronze Age	The period of human activity between 2,500 BCE and 700 BCE
Characterisation	Capturing the local distinctiveness by identifying how places have been shaped over time.
Conservation Area	An area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance, designated under the Planning (Listed Buildings and Conservation Areas) Act 1990.

Term	Definition
Conservation Management Plan	A conservation management plan describes the significance of a historic asset and explains how it will be protected, conserved and sustained. It sets out general policies and principles for managing the asset which will retain its significance, together with detailed programmes for maintenance, repair, access and use, and proposals for change.
Construction activity	Vegetation removal, topsoil stripping, temporary storage of materials, ground excavation and remodelling, bare earth, movement of construction vehicles and tall features such as cranes and other construction plant.
Desk based assessment	A programme of study of the historic environment within a specified area or site on land, the inter-tidal zone or underwater that addresses agreed research and/ or conservation objectives. It consists of an analysis of existing written, graphic, photographic and electronic information in order to identify the likely heritage assets, their interests and significance and the character of the study area, including appropriate consideration of the settings of heritage assets and, the nature, extent and quality of the known or potential archaeological, historic, architectural and artistic interest. Significance is to be judged in a local, regional, national or international context as appropriate.
Earthworks	The moving of soil or rock to reconfigure the topography of a site.
Environmental Impact Assessment (EIA)	An analytical process that systematically examines the possible environmental consequences of the implementation of projects as specified in EIA Directive 2011/92/EU (as amended). The assessments are reported in an Environmental Statement (ES).
Environmental Statement (ES)	The report on the results of the EIA.
Fieldwalking survey	Method of systematic non-intrusive survey involving walking across a plough field along transects to collect archaeological artefacts.
Geology	Geology is the study of solid earth, the material of which it is composed (principally rocks) and the processes by which they evolve.
Geophysical survey	Archaeological geophysical survey uses non-intrusive and non-destructive techniques to determine the presence or absence of anomalies likely to be caused by archaeological features, structures or deposits, as far as reasonably possible, within a specified area or site on land, in the inter-tidal zone or underwater. Geophysical survey determines the presence of anomalies of archaeological potential through measurement of one or more physical properties of the subsurface. (ClfA)
Historic Environment Records (HER)	A historic environment record is the store for systematically organised information about the historic environment in a given area and can be accessed by anyone. It is maintained and updated for public benefit.
Historic landscape character types (HLCT)	Historic landscape character types are distinctive and repeated combinations of components defining generic historic landscapes such as 'ancient woodland' or 'parliamentary enclosure'. The types used in this study were defined based on evidence from historic maps and other sources.
Iron Age	The period of human activity between 700 BCE and 43 CE
Made ground	Ground created by infilling an area with material taken from elsewhere; typically, reworked soils, rubble, gravel, sand or former waste material e.g. ash.
Medieval	The period of human activity between 1066 CE and 1550 CE
Mesolithic	Middle Stone Age. The period of human activity between 10,000 BCE and 4,500 BCE.
Metal detector survey	Method of intrusive investigation involving the use of metal detectors to locate buried metal objects.
Mitigation	Mitigation is the action to take to avoid or minimise any harm to the significance of a historic asset.

Term	Definition
Modern	The period of human activity from 1900 to the present day
Neolithic	New Stone Age. The period of human activity between 4,500 BCE and 2,500 BCE
Ordnance Datum	The standard measure of sea level in the UK, from which all heights are measured for mapping purposes.
Palaeolithic	Old Stone Age. The period of human and pre-human activity before around 10,000 BCE
Photomontage	A photorealistic image of the scheme, based on a 3D computer model of the scheme, overlaid onto a base photograph to visually represent the scheme. Features that would be removed as part of the scheme are removed from the base photograph.
Post-Medieval	The period of human activity between 1550 CE and 1900 CE
Prehistoric	The period before the year 43 CE
Receptor	The existing environmental feature that would be affected by an impact – for instance a specific archaeological site
Requirement	A requirement listed as a condition of planning permission
Roman	The period of human activity between 43 CE and 410 CE
Saxon	The period of human activity between 410 CE and 1066 CE
Zone of Theoretical Influence (ZVI)	The zone from which the scheme could theoretically impart an impact based partly on visibility and professional judgement
Zone of Theoretical Visibility (ZTV)	The zone from which the scheme is theoretically visible over 'bare earth'

ABBREVIATIONS AND ACRONYMS

AOD	Above Ordnance Datum (above sea-level)
AP	Aerial Photograph
ASA	Archaeologically Sensitive Area
BCE	Before Common Era
BGS	British Geological Survey
BH	Borehole
C	Century
c.	Circa
CA	Conservation Area
CBM	Ceramic building material
CE	Common Era
CEMP	Construction Environment Management Plan
CIfA	Chartered Institute for Archaeologists
DBA	Desk-based Assessment
DCO	Development Consent Order
DCLG	Department for Communities and Local Government
DMV/SMV	Deserted/Shrunken Medieval Village

EMS	Environmental Management System certified to ISO 14001: 2004
ES	Environmental Statement
Eval.	Evaluation Trial Trenching
Geophys.	Geophysical Survey
HA	Headland Archaeology
HER	Historic Environment Record
HLC	Historic Landscape Character(isation)
HSE	Health and Safety Executive
LB	Listed Building
LPA	Local Planning Authority
LiDAR	Light Detection and Ranging
MLWS	Mean low water springs
NGR	National Grid Reference
NHLE	National Heritage List for England
NRHE	National Record of the Historic Environment
OS	Ordnance Survey
R&F	Ridge and Furrow (earthwork cultivation)
RO	Registered Organisation (with ClfA)
RPG	Registered Park & Garden
SM	Scheduled Monument
SMP	Soil Management Plan
SMS	'Strip, Map and Sample'
WB	Watching Brief
WSI	Written Scheme of Investigation (project design or method statement)
ZTV	Zone of Theoretical Visibility

REFERENCES

BIBLIOGRAPHIC REFERENCES

- Archaeoleg (2003) *A Research Framework for the Archaeology of Wales*.
- Archaeoleg (2004) *A Research Framework for the Archaeology of Wales National Seminar Paper*.
- Archaeoleg (2010) *Review of the Research Framework for the Archaeology of Wales*.
- Archaeoleg (2017) *A Research Framework for the Archaeology of Wales version 3*.
- ARCHI information Systems (2021) *ARCHI UK: Map of Margam Place-Names* [online] Available at: https://www.archiuk.com/cgi-bin/get_placename.pl?placename=Margam&uk_placename2=&MapOrList=map&pwd=freesearch@freesearch.com&synonyms= (Accessed 08/08/2022).
- British Geological Survey (2021) *Geology of Britain Viewer* [Online] Available at: <http://www.bgs.ac.uk/geologyofbritain3d> (Accessed 08/08/2022).
- Cadw (2022) *Cof Cymru – National Historic Assets of Wales*.
- Davies, J., Jenkins, N., Menna, B. & Lynch, P. (eds) (2008) *The Welsh Academy Encyclopaedia of Wales*. Cardiff: University of Wales Press.
- Dyfed Archaeological Trust (2011) *The Lost Lands of our Ancestors*.
- Evans, E (2018) *Romano-British Settlement in South-East Wales* [online] Available at: <https://doi.org/10.11141/ia.48.8> (Accessed 08/08/2022).
- Glamorgan-Gwent Archaeological Trust (2006) *Survey of Prehistoric Funerary and Ritual Sites* [online] Available at: www.ggat.org.uk/cadw/fun_rit/english/fun_ritmain.html (Accessed 08/08/2022).
- Glamorgan-Gwent Archaeological Trust (2022) *Mynydd Margam Historic Landscape Character Areas* [online] Available at: https://www.ggat.org.uk/cadw/historic_landscape/margam/english/mynydd_margam_historic_pro.html (Accessed 14/02/2022).
- Lewis, S. (1849) *A Topographical Dictionary of Wales* [online] Available at: <http://www.british-history.ac.uk/topographical-dict/wales/pp186-193> (Accessed 08/08/2022).
- Lynch, F., Davies, J.L. & Aldhouse-Green, S. (2007) *Prehistoric Wales*.
- Royal Commission on the Ancient and Historical Monuments of Wales (2021) *Cathole Cave, Parkmill* [online] Available at: <https://coflein.gov.uk/en/site/3056121> (Accessed 08/08/2022).
- Royal Commission on the Ancient and Historical Monuments of Wales (2022) *List of Historic Place Names Recorded Name: Margam* [online] Available at: <https://historicplacenames.rcahmw.gov.uk/placenames/recordedname/93e81157-4149-4953-adf9-2d50df1f2107> (Accessed 08/08/2022).
- Ritchie, M. (2018) *A Brief Introduction to Iron Age Settlement in Wales* [online] Available at: <https://doi.org/10.11141/ia.48.2> (Accessed 08/08/2022).
- The Megalithic Portal (2004) *Introduction to West Glamorgan* [online] Available at: <https://www.megalithic.co.uk/article.php?sid=2146411765> (Accessed 08/08/2022).
- The Megalithic Portal (2011) *Ancient Footprints on Kenfig Beach* [online] Available at: <https://www.megalithic.co.uk/article.php?sid=28538> (Accessed 08/08/2022).
- Welsh Coal Mines (2022) *Morfa Colliery, Taibach, 1863* [online] Available at: www.welshcoalmines.co.uk/glamwest/morfa.htm (Accessed 08/08/2022).
- Welsh Government (2022) *Welsh Government Historic Aerial Photography WMTS* [online] Available at: <http://lle.gov.wales/services/tiles/apu/> (Accessed 22/08/2022).

HISTORIC MAPS

1813 Thomas Budgen map of Bridgend (OSD 178) 1:31608

1877 Ordnance Survey County Series 1:2500 1st edition

1899 Ordnance Survey County Series 1:2500 1st revision

1921 Ordnance Survey County Series 1:10560 2nd revision

1952 Ordnance Survey County Series 1:10560 3rd revision

1964 Ordnance Survey National Grid 1:10560 1st imperial edition

APPENDIX 1: KNOWN HISTORIC ASSETS WITHIN THE STUDY AREA

ID	Name	Status	Period	Easting	Northing	Importance
GM056	Danish Camp	SAM	Iron Age	282087	187069	Very High
GM545	Margam Medieval Bath House	SAM	Medieval	280306	186925	Very High
GM488	Chain Home Low Radar Station, Margam	SAM	Modern	279332	187081	Very High
GM493	Bryndu Coke Ovens	SAM	Post Medieval	283895	183491	Very High
GM042	Kenfig Castle & Medieval Town	SAM	Medieval	280103	182564	Very High
GM036	Pyle Incised Stone	SAM	Medieval	282239	182326	Very High
GM057	Camp N of Tonmawr	SAM	Prehistoric	282532	186999	Very High
GM090	Camp 530m E of Tonmawr	SAM	Prehistoric	283086	186208	Very High
GM179	Ty'n-y-Cellar Standing Stone	SAM	Bronze Age	280242	183740	Very High
GM345	Sculptured Cross Llanmihangel Farm	SAM	Early Medieval	281606	182834	Very High
GM477	Half Moon Camp	SAM	Iron Age	279965	186732	Very High
GM005	Margam Abbey	SAM	Medieval	280185	186252	Very High
GM011	Margam Inscribed & Sculptured Stones	SAM	Early Medieval	280139	186350	Very High
GM160	Ergyd Isaf Round Barrows	SAM	Bronze Age	279443	188656	Very High
GM162	Mynydd y Castell Camp	SAM	Iron Age	280616	186572	Very High
GM163	Hen Eglwys Chapel and Defended Enclosure	SAM	Medieval	280123	186522	Very High
GM449	Leat & Dam at Llanmihangel Mill	SAM	Post Medieval	282095	182414	Very High
11217	Sker House	I	Post Medieval	279529	179838	High
11219	Prince of Wales Inn, also known as Ty Newydd	II	Post Medieval	280365	181801	Medium
11227	Church of St James, Pyle with Kenfig	I	Post Medieval	282558	182645	High
11247	Marlas House	II	Post Medieval	281891	182235	Medium
11248	Church of St Mary Magdalen, Pyle with Kenfig.	II*	Medieval	280662	181947	Medium
11334	Ty-maen	II	Post Medieval	281966	180250	Medium
11349	The Hall Farm	II*	Post Medieval	282056	181628	Medium
11360	Ty-yr-ychen, also known as Sker House farm buildings.	II	Post Medieval	279638	179877	Medium
14148	St Mary's Abbey Church	I	Medieval	280152	186291	High
14149	Ruins of Chapter House and Vestibule of St Mary's Abbey	I	Medieval	280197	186267	High
14150	Ruined Undercroft at St Mary's Abbey	I	Medieval	280193	186235	High

ID	Name	Status	Period	Easting	Northing	Importance
14151	Almshouses	II	Post Medieval	280071	186318	Medium
14152	Margam Orangery	I	Post Medieval	280118	186238	High
14153	Ivy Cottage including Facade of Former Banqueting House	I	Post Medieval	280081	186287	High
14155	Hen Eglwys	II*	Medieval	280123	186522	Medium
14157	Barn at Eglwys Nunydd	II	Post Medieval	280304	184901	Medium
14158	Old Park	II*	Post Medieval	280698	185027	Medium
14160	Church of St Theodore	II*	Post Medieval	277255	189098	Medium
14161	Churchyard Walls and Gate Piers to St Mary's Abbey Church	II	Post Medieval	280110	186307	Medium
14162	Kitchen Garden Walls including Vinery Glasshouse	II	Post Medieval	280031	186342	Medium
14163	Terrace Walls and Screen at Margam Castle	II*	Post Medieval	280447	186250	Medium
14164	Middle Lodge	II	Post Medieval	280015	186374	Medium
14165	Cwm Cottage	II	Post Medieval	279852	186116	Medium
14166	Margam Cottage	II	Post Medieval	279888	186115	Medium
14167	2 Grove Cottages	II	Post Medieval	279846	186300	Medium
14168	Piers and Gates at East Lodge and Flanking Walls	II	Post Medieval	281463	185145	Medium
14169	Gateway and Quadrant Walls Leading to Twyn yr Hydd	II	Post Medieval	281044	185098	Medium
14170	Margam Castle	I	Post Medieval	280494	186284	High
14172	Beulah Calvinistic Methodist Chapel	II*	Post Medieval	278373	187422	Medium
14176	Llanmihangel Mill	II*	Medieval	281921	182354	Medium
19171	Pyle Calvinistic Methodist Chapel, Capel y Pil, and schoolroom, with forecourt railings.	II*	Post Medieval	282366	181605	Medium
19172	Group of 4 chest tomb in churchyard of St James, Pyle	II	Post Medieval	282562	182639	Medium
19173	Churchyard Cross in St James' churchyard, Pyle	II	Medieval	282557	182629	Medium
19174	Morgan monument in St James' churchyard, Pyle	II	Post Medieval	282537	182640	Medium
19175	Chest tomb in the graveyard of the Church of St Mary Magdalen, Pyle with Kenfig.	II	Post Medieval	280641	181951	Medium
19176	Kenfig Hill War Memorial	II	Modern	283707	182927	Medium
19177	The Talbot Institute	II	Modern	283685	182955	Medium
19178	Garden gateway at Ty-maen	II	Post Medieval	281990	180252	Medium
19179	Pool Farmhouse	II	Post Medieval	280338	181537	Medium
19180	Mile marker on A48, Pyle to Margam Road	II	Post Medieval	282602	182836	Medium

ID	Name	Status	Period	Easting	Northing	Importance
19182	Two chest tombs set against the E churchyard wall, Church of St James.	II	Post Medieval	282577	182642	Medium
19183	Two chest tombs in the churchyard, St James Church	II	Post Medieval	282548	182629	Medium
19184	Rees Williams monument in the churchyard, St James church.	II	Post Medieval	282568	182642	Medium
22806	Gibeon Chapel	II	Post Medieval	277565	188921	Medium
22807	Carnegie Free Library	II	Modern	277352	188964	Medium
22808	Milepost	II	Post Medieval	277650	188564	Medium
23152	Harbour Court	II	Modern	276687	189509	Medium
23154	Former Harbour House	II	Post Medieval	276066	189031	Medium
23155	Harbour Watch-Tower	II	Post Medieval	275145	188593	Medium
23248	Holy Cross Church	II	Post Medieval	277548	189515	Medium
23253	Dyffryn Chapel	II	Post Medieval	277232	188964	Medium
23255	Gateway to Talbot Memorial Park	II	Modern	277279	189025	Medium
23256	War Memorial	II*	Modern	277319	189063	Medium
23257	Fountain in Honour of John Hopkin Davies	II	Modern	277358	189063	Medium
23258	Bandstand	II	Modern	277371	189116	Medium
23259	Lodge 2, Talbot Memorial Park	II	Modern	277290	189023	Medium
23260	Lodge 1, Talbot Memorial Park	II	Modern	277279	189035	Medium
23262	Llanmihangel	II*	Post Medieval	281558	182866	Medium
23263	Twyn yr Hydd	II	Post Medieval	281090	185277	Medium
23264	Citrus House	II	Post Medieval	279984	186276	Medium
23265	Retaining Wall adjoining Citrus House	II	Post Medieval	280014	186294	Medium
23266	Stone Steps in Terraced Garden	II	Post Medieval	280422	186275	Medium
23267	Terrace with Pools and Flower Beds Fronting Margam Orangery	II*	Post Medieval	280118	186217	Medium
23268	Turbine House	II	Post Medieval	280266	186048	Medium
23269	Stones Museum	II	Post Medieval	280139	186349	Medium
23270	War Memorial	II	Modern	280102	186291	Medium
23271	Pair of Gate Piers to the Former Margam House	II	Post Medieval	280066	186041	Medium
23272	Ornamental Pool	II	Post Medieval	279992	186223	Medium
23273	Former Changing Room	II	Post Medieval	279974	186251	Medium
23274	Monastic Baths	II*	Medieval	280304	186925	Medium

ID	Name	Status	Period	Easting	Northing	Importance
23275	Broadwalk Steps	II	Post Medieval	280272	186260	Medium
23276	Arch over Culvert	II	Post Medieval	280260	186320	Medium
23277	Farm Building at Twyn yr Hydd	II	Post Medieval	281148	185316	Medium
23278	Service Buildings including Courtyard Walls at Margam Castle	II*	Post Medieval	280552	186290	Medium
23279	Kitchen Garden Wall and Glass House at Twyn yr Hydd	II	Post Medieval	281128	185322	Medium
23280	Garden Wall at Twyn yr Hydd	II	Post Medieval	281096	185258	Medium
23281	Entrance to Twyn yr Hydd and Flanking Walls	II	Post Medieval	281160	185190	Medium
23282	Vestry at Beulah Chapel	II	Post Medieval	278370	187431	Medium
23283	Gates, Piers and Railings at Beulah Chapel	II	Post Medieval	278362	187421	Medium
23284	Milepost at Tollgate Park	II	Post Medieval	278407	187268	Medium
23285	Milepost near Margam Park Entrance	II	Post Medieval	279911	185862	Medium
23286	Milepost near Old Park	II	Post Medieval	280770	185287	Medium
23287	Milepost near Cae Garw	II	Post Medieval	281893	184141	Medium
23288	Bridge near Llanmihangel Mill	II	Post Medieval	282002	182324	Medium
23289	Granary at Ty'n y Cellar	II	Post Medieval	280379	183450	Medium
23290	Former Cow-house at Ty'n y Cellar	II	Post Medieval	280390	183485	Medium
23291	Ty'n y Cellar and adjoining Barn	II	Post Medieval	280404	183456	Medium
23292	Cart Shed, Stable and Cow-House at Ty'n y Cellar	II	Post Medieval	280359	183464	Medium
23293	3 Grove Cottages	II	Post Medieval	279839	186302	Medium
87691	Morfa Bach Access Underbridge (West)	II	Post Medieval	279834	183110	Medium
87692	Morfa Bach Access Underbridge (East)	II	Post Medieval	279952	183040	Medium
87693	River Black Underbridge	II	Post Medieval	281389	182533	Medium
87694	Mill Bridge Underbridge	II	Post Medieval	281851	182311	Medium
87695	Marlas Road Overbridge	II	Post Medieval	281994	182241	Medium
87696	Pyle Road Overbridge	II	Post Medieval	282794	181896	Medium
87732	Margam Crematorium	II*	Modern	279537	185580	Medium
151	Margam Park	CA	N/A	280145.2	186281.6	High
PGW(Gm)45(NEP)	Talbot Memorial Park, Port Talbot	RPG	Post Medieval	277327.3	189136.5	Medium
PGW(Gm)52(NEP)	Margam Park	RPG	Post Medieval	281010.2	186166.8	Medium
401297	MARGAM HUMP YARD, MARGAM MOORS	Non-designated	Modern	279540	183100	Low

ID	Name	Status	Period	Easting	Northing	Importance
421807	MARGAM SORTING SIDINGS SIGNAL BOX, MARGAM TRACTION MAINTENANCE DEPOT	Non-designated	Modern	279008	184131	Low
421806	MARGAM ABBEY WORKS EAST SIGNAL BOX, MARGAM ABBEY WORKS	Non-designated	Modern	279017	184671	Low
401428	KENFIG BURROWS;KENFIG NATIONAL NATURE RESERVE	Non-designated	Post Medieval	279120	182870	Low
273817	SUNDA	Non-designated	Post Medieval	277946	182661	Low
402096	SOUTH WALES RAILWAY;GREAT WESTERN RAILWAY SOUTH WALES MAIN LINE	Non-designated	Post Medieval	278900	185000	Low
402928	PEAT EXPOSURES ON FORESHORE, MARGAM SANDS, SSW OF MARGAM	Non-designated	Unknown	276900	185200	Low
413706	MARGAM BURROWS	Non-designated	Medieval	278373	183132	Low
240827	UNNAMED WRECK	Non-designated	Post Medieval	277946	182661	Low
414947	EGLWYS NUNYDD RESERVOIR, MARGAM	Non-designated	Modern	279440	184810	Low
240725	COIN FIND, MARGAM BEACH	Non-designated	Post Medieval	277503	184093	Low
24479	MARGAM WARREN	Non-designated	Unknown	278000	185000	Low
GGAT00747w	MARGAM MOORS RECUMBANT STONE	Non-designated	Bronze Age	278950	185020	Low
GGAT00819w	Margam Bronze Pin Finds	Non-designated	Roman	277000	185200	Low
GGAT01062m	St Thomas' Chapel, Kenfig	Non-designated	Medieval	279000	183000	Low
GGAT01063m	Guildhall, Cynffig	Non-designated	Medieval	279000	183000	Low
GGAT01211w	Margam Sands Axe Head Find	Non-designated	Bronze Age	276900	185200	Low
GGAT01863w	MARGAM SANDS	Non-designated	Post Medieval	277000	185200	Low
GGAT02251w	Margam Sands Axe Head	Non-designated	Bronze Age	277050	185100	Low
GGAT02343w	Margam Sands Axe Heads	Non-designated	Bronze Age	276950	185000	Low
GGAT02564m	Battery, Margam Moors	Non-designated	Modern	277800	184300	Low
GGAT02565m	Unknown Wreck	Non-designated	Post Medieval	277800	182900	Low
GGAT02954w	BUCKET HANDLE, MARGAM BEACH	Non-designated	Bronze Age	277000	185000	Low
GGAT02955w	MARGAM BEACH	Non-designated	Bronze Age	277000	185000	Low
GGAT02956w	MARGAM BEACH	Non-designated	Prehistoric	276980	185050	Low
GGAT02957w	BRONZE NEEDLE, MARGAM BEACH	Non-designated	Bronze Age	277000	185000	Low
GGAT02958w	MARGAM BEACH	Non-designated	Bronze Age	277000	185000	Low
GGAT02959w	MARGAM BEACH	Non-designated	Prehistoric	277000	185000	Low
GGAT02960w	MARGAM BEACH	Non-designated	Prehistoric	277000	185000	Low
GGAT02964w	MARGAM BEACH	Non-designated	Bronze Age	277020	185140	Low

ID	Name	Status	Period	Easting	Northing	Importance
GGAT03132w	Findspot, Margam	Non-designated	Post Medieval	277000	185220	Low
GGAT03138w	Findspot, Margam	Non-designated	Medieval	277000	185200	Low
GGAT03139w	Wreck, Margam	Non-designated	Post Medieval	277000	185300	Low
GGAT03153w	Single ringed pin, Margam Moors	Non-designated	Early Medieval	277300	184300	Low
GGAT03154w	Cauldron Foot, Margam Moors	Non-designated	Medieval	277400	184100	Low
GGAT03155w	Quernstone, Margam Moors	Non-designated	Unknown	277300	184500	Low
GGAT03156w	Animal remains, Margam Moors	Non-designated	Unknown	277200	184700	Low
GGAT03157w	Remains of structure, Margam Moors	Non-designated	Modern	277800	183700	Low
GGAT03158w	Modern concrete structure, Margam Moors	Non-designated	Modern	277400	184400	Low
GGAT06317m	Wreck at Kenfig	Non-designated	Unknown	277820	183060	Low
GGAT06435m	Shingle Pit near remains of Kenfig Castle	Non-designated	Unknown	279603	182936	Low
GGAT06439m	Shingle Pit	Non-designated	Unknown	279584	182813	Low
GGAT07406m	Quadrant Tower, RAF Stormy Down	Non-designated	Modern	278003	183656	Low
GGAT07407m	Possible observation post, RAF Stormy Down	Non-designated	Modern	278080	182680	Low
GGAT08049w	Martin B-26 Marauder 42-96192 crash site	Non-designated	Modern	277114	184601	Low
GGAT08606w	Morfa Mawr Farm, Margam Moors	Non-designated	Post Medieval	277592	184797	Low
GGAT08607w	Boat Rib, Morfa Beach	Non-designated	Unknown	277018	185066	Low
GGAT09017w	Small arms range, Lower Mother	Non-designated	Modern	277880	185400	Low
HLW (MGI) 1	Merthyr Mawr, Kenfig & Margam Burrows	Non-designated	Medieval	282434.2	179683.5	Low
HLW (WGI/MGI) 2	Margam Mountain	Non-designated	Roman	281485.4	188588.6	Low
E005059	Kenfig Industrial Estate ASIDOHL	Event	N/A	279700.6	183542.7	N/A
E003718	Marlas-Raos Sewage Pipeline	Event	N/A	277503	184637	N/A
E006100	GGAT150: Rapid Coastline Zone Assessment	Event	N/A	278365	183706	N/A



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