

PMTW21



Pengarnddu Service Reservoir, Merthyr Tydfil, Glamorgan, Wales

Client: Mott MacDonald Bentley

V2.0

28/01/21

Ailsa Westgarth, MCIfA
Headland Archaeology (UK) Ltd
Unit 1 Clearview Court
Twyford Road
Hereford HR2 6JR

1 INTRODUCTION

- 1.1 This document is submitted by Headland Archaeology (UK) Ltd as the Project Design for an archaeological watching brief of the proposed Pengarnddu Service Reservoir Project, Merthyr Tydfil.
- 1.2 The archaeological advisor to the planning authority (The Glamorgan Gwent Archaeological Trust – GGAT) have indicated that the ground disturbing works should be subject to an archaeological watching brief.
- 1.3 This Written Scheme of Investigation defines the scope of the investigation and is submitted for agreement from the archaeological advisor to the planning authority.
- 1.4 The watching brief will provide further information about the archaeological resource, to enable appropriate decisions to be reached regarding the planning submission. This Project Design takes into account relevant ClfA and regional Standards and Guidance.

SITE LOCATION AND DESCRIPTION

- 1.5 The scheme is located at NGR SO 07500 08900 in the County Borough of Merthyr Tydfil within the historic county of Glamorgan. The scheme area is approximately 4.35ha and located on the northern edge of a modern industrial estate, to its north is the Brecon Beacons National Park. It is located in the north-east of the Merthyr Tydfil Registered Historic Landscape.
- 1.6 The solid geology of the site is composed of South Wales Lower coal measures formation - Sandstone. Overlain by superficial deposits of Devensian Till (British Geological Survey website; <http://www.bgs.ac.uk>).

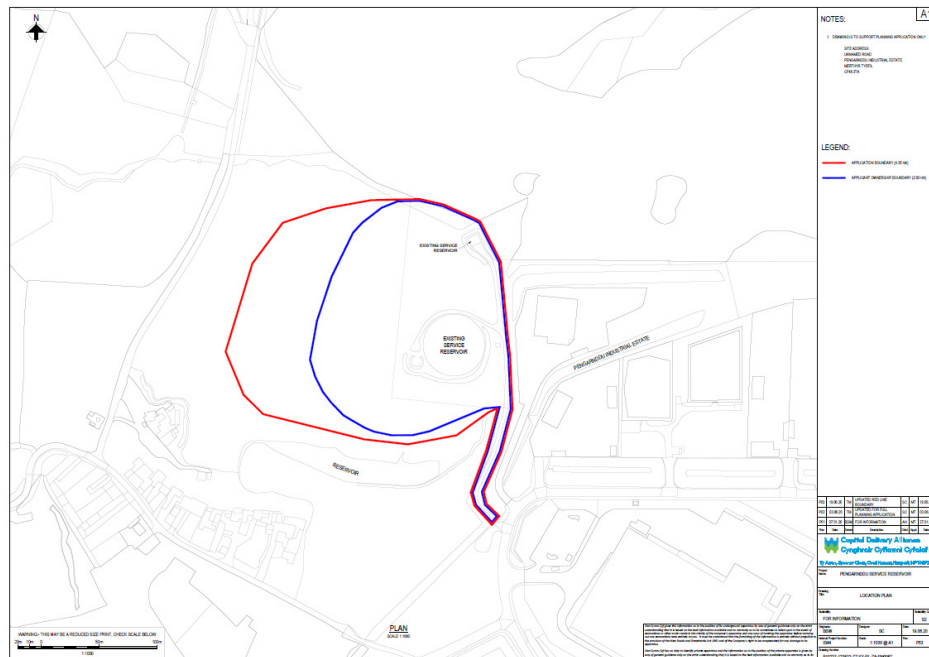


Figure 1: Development Area

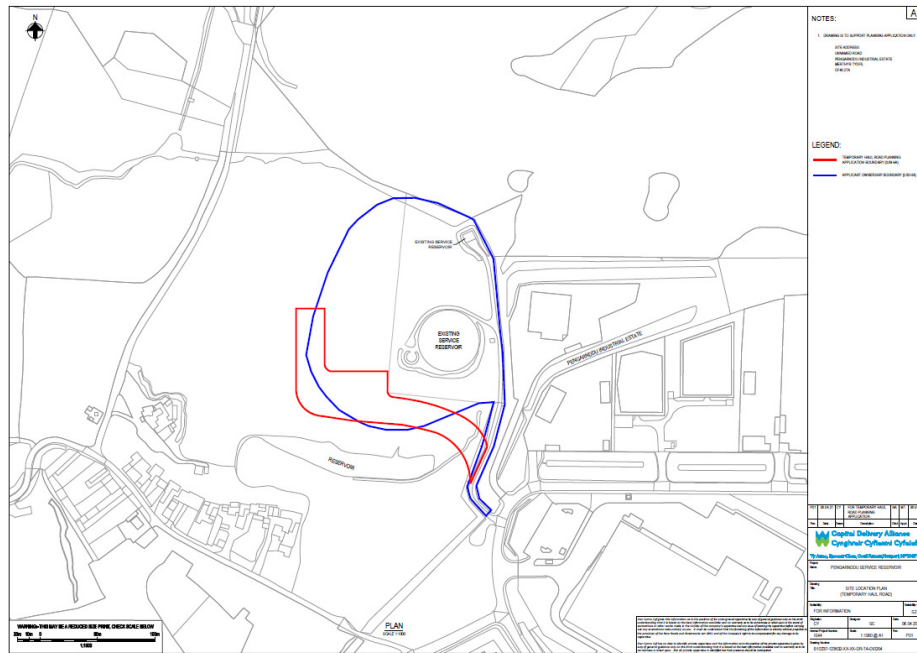


Figure 2: Proposed works

ARCHAEOLOGICAL BACKGROUND

- 1.7 An ASIDOHL (Assessment of the Significance of the Impact of Development on Historic Landscape Areas on the Register (Mott MacDonald, June 2020)), was undertaken to assess the impact of the development upon the local Historic Landscape.
- 1.8 Merthyr Tydfil occupies a natural basin at the top of the Taff Valley. The historic interest of the landscape is largely associated with its post-medieval industrial development, with particular interest in landscapes relating to the iron and steel industry.
- 1.9 Merthyr Tydfil has been assessed by GGAT as containing 79 distinct HCAs. These HCAs comprise medieval and post-medieval agricultural landscapes, medieval and post-medieval common land and enclosed common land, post-medieval industrial landscapes (related to the mining and the steel industries and water management), post-medieval and modern townships and reclaimed industrial land.
- 1.10 The wider area contained a number of industrial HCA's including a post medieval settlement at Dowlais (including iron working areas), Ivor Iron Works, an industrial area of former iron works; Pantcadifor, Rhyd-y-Bedd and Caeracca, a minor post-medieval settlement; Pengarnddu, a former industrial landscape of quarrying and water management; and Twynau Gwynion Quarries, 19th century quarries associated with iron works (among others).
- 1.11 HCA041 is the only area within the proposed development and forms An area of common land containing characteristic water-management features, including part of the 19th century Dowlais Free Drainage System associated with the Dowlais and later the Ivor Iron Works; individual components include the Saints and Pitwell Ponds and numerous associated features".
- 1.12 The ground disturbing works are currently planned to commence on 6th May 2021.

- 1.13 A draft report will then be delivered to the client and, on approval, to the planning authority within six weeks of the completion of fieldwork.

2 PROJECT TEAM

- 2.1 The project will be managed for Headland Archaeology by Ailsa Westgarth; the field team will consist of a project archaeologist. *Curricula vitae* of key personnel can be supplied on request. The project team will familiarise themselves with the background to the site and will be aware of the project's aims and methodologies.
- 2.2 Specialist artefact analyses will be managed by Julie Franklin who is Headland's Finds Manager. Julie will undertake finds assessment within her areas of competence (medieval and post-medieval metalwork, glassware, clay pipes, ceramic building material and other small finds). Further consultation will be sub-contracted to recognised period specialists familiar with finds from this geographical area as appropriate, notably David Mullin (Neolithic – Bronze-Age pottery) and Jane Timby (Romano-British pottery).
- 2.3 Environmental analysis will be managed by Dr Alex Smith. Headland has in-house specialists who can undertake analysis of plant macrofossils, faunal remains and human remains (although it is not anticipated that the latter will be removed during a watching brief project).
- 2.4 Headland Archaeology (UK) Ltd is a Registered Organisation and abides by the Codes of Conduct and Approved Practice and Standards of the Chartered Institute for Archaeologists. The company has all the necessary technical and personnel resources for the satisfactory completion of the watching brief.

3 INSURANCE & COPYRIGHT

- 3.1 Headland Archaeology (UK) Ltd is fully indemnified and all necessary insurances can be presented on request.
- 3.2 Copyright will be retained by Headland Archaeology (UK) Ltd. Headland will licence the client and other bodies as necessary for use in matters relating to the project and for use of the project archive by the relevant museum. This licence will also extend to non-commercial use.

4 HEALTH & SAFETY

- 4.1 All of Headland's work is undertaken in accordance with current H&S legislation. A risk assessment and method statement will be prepared prior to the commencement of fieldwork. All staff will wear appropriate PPE and this will include high-visibility clothing, hard hats and safety footwear. Suitable site welfare facilities will be provided by Mott MacDonald (The Client).
- 4.2 All Headland employees will follow national COVID-19 guidance, Mott MacDonald COVID-19 policy and Headland Archaeology COVID-19 Risk Assessment. Employees will not attend site if they display any symptoms of COVID-19. Social distancing at a minimum of 2m will be adhered to at all times. Additional disinfectant wipes, hand gel and masks are carried by all Headland employees.

5 ACCESS & SERVICES

- 5.1 This WSI is submitted on the understanding that Headland Archaeology will maintain access to proposed development area, allowing time for any additional recording of archaeologically sensitive deposits.

6 OBJECTIVES

6.1 The objectives of the watching brief are as follows:

- To establish the location, extent, nature and date of archaeological features or deposits that may be present within the areas proposed to be disturbed during the development;
- To sample and assess any peat deposits encountered for Palaeoenvironmental remains
- To establish the integrity and state of preservation of archaeological features or deposits that may be present within the areas proposed to be disturbed during the development;
- To inform the planning authority;
- To assist in developing a mitigation strategy should remains of significance be present on the site; and
- To produce and deposit a satisfactory archive and disseminate the results of the work via grey-literature reporting and publication as appropriate.

7 STRATEGY

7.1 Initial discussions between the client and GGAT have resulted in agreement on the watching brief strategy.

8 METHOD

FIELDWORK

- 8.1 Any intrusive groundworks within the development area (Fig 1), will be subject to an archaeological watching brief.
- 8.2 All areas will be excavated by 50t machine with a bladed bucket under archaeological supervision and will be excavated in controlled spits. Areas of topsoil to be removed by bulldozer will be inspected when approximately 20m wide areas were stripped and the bulldozer clear of the areas. Machine excavation will terminate at required depth for construction or the underlying natural deposits (whichever is reached soonest).
- 8.3 Excavation of archaeological deposits and features encountered, required to satisfy the objectives of the watching brief will continue by hand (except where agreed otherwise with the archaeological advisor). The stratigraphic sequence will be recorded in full across the PDA, even where no archaeological deposits have been identified.

RECORDING

- 8.4 All recording will follow the Headland manual and ClfA Standards and Guidance. All contexts, small finds and environmental samples will be given unique numbers. All recording will be undertaken on *pro forma* record cards. In the event that stratified deposits are encountered, a 'Harris' matrix will be compiled. Digital photographs on a minimum 10mp camera will be taken as the site photographic archive.
- 8.5 A site plan including all identified features, location of test pits and other pertinent information will be recorded digitally. The site plan will be accurately linked to the National Grid and heights to OD. Where appropriate, sections and stratigraphic sequences will be recorded digitally. Digital recording will be undertaken using a differential GPS. If additional detailed recording of features and sections is required (ie. where their complexity means that archaeological information could be lost if

recorded digitally) then plans and sections will be hand-drawn on permatrace at an appropriate scale (normally 1:20 or 1:50 for plans and 1:10 for sections).

SAMPLES AND ARTEFACTS

- 8.6 Finds will be routinely recorded by context and recorded 3-dimensionally where appropriate (i.e. where their position within a context can provide further significant information or the find is of particular significance). Any artefacts retrieved during the watching brief will be cleaned using appropriate techniques and packaged and stored in accordance with *First Aid for Finds* (Watkinson & Neal 1998). All artefacts recovered during the watching brief will be cleaned, marked and catalogued. Headland's in-house finds specialists will be available to provide advice remotely or on site if necessary. Conservation will be undertaken by Cardiff University.
- 8.7 The terms of the Treasure Act 1996 will be followed with regards to any finds which might fall within its scope. Any finds will be removed to a safe place and reported to the local coroner as required by the procedures laid down in the "Code of Practice". Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft. The find will also be reported to the Portable Antiquities Scheme Finds Liaison Officer at GGAT; enquiries@ggat.org.uk.
- 8.8 Deposits on the site are anticipated to be in non-waterlogged contexts. They are expected to comprise the fills of negative features. The site sampling strategy is to collect bulk samples from selected deposits for wet sieving and floatation in order to recover any environmental material and other finds (e.g. bone, pottery etc.). Deposits will be selected on site for sampling based upon their potential to contain artefacts or ecofacts relevant to understanding the character, date or significance of the deposit and of the environmental resource itself. It is noted that not all environmental remains are visible to the naked eye under field conditions; therefore bulk samples will be taken from features of potential significance even when no ecofactual/artefactual evidence has been directly observed.
- 8.9 Where waterlogged deposits are encountered (such as peat) appropriate sampling techniques will be employed so as to maximise the environmental information gained from such deposits. This may include the taking of monolith or core samples for pollen and non-pollen palynomorphs (e.g. testates and fungal spores) and large specialist samples for plant macrofossil, wood (including waterlogged wood) and insect analyses.

9 MONITORING

- 9.1 Access to the site will be afforded to the archaeological advisor for monitoring purposes.

10 REPORTING AND ARCHIVE

- 10.1 All aspects of reporting and archive will be undertaken in accordance with guidelines published by the ClfA on behalf of the Archaeological Archives Forum (July 2007). On completion of the watching brief Headland will produce a site archive. This will include all relevant specialist assessments of excavated material.
- 10.2 Final report contents and format will be in line with ClfA and GGAT-HER requirements, including summary with Welsh language translation. Copies of the report will be sent to the client for onward transmission to the local planning authority; copies (paper & electronic) will also be submitted to the HER Manager, to be deposited in the GGAT Historic Environment Record. Submission will be in accordance with *Guidance for the Submission of Data to the Welsh Historic Environment Records (2018)*. All reports will be submitted within two months of the completion of fieldwork.

- 10.3 Headland Archaeology (UK) Ltd actively seeks to encourage land-owners to deposit artefacts with an appropriate museum, and agreement will be sought to this effect. Where permission is forthcoming the finds and archive will be deposited with the appropriate museum in line with its deposition guidelines. Deposition will be undertaken within one year of the completion of fieldwork. Deposition will be in accordance with *the National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales (2017)*.
- 10.4 A digital copy of the archive including photographs will be send to RCAHMW as per its guidelines.
- 10.5 Summary publication of the results will be in *CBA Wales* and *Morgannwg* in the year following the completion of fieldwork.
- 10.6 If further publication of the results of the watching brief is required then a specification will be agreed with GGAT and costs will be provided for agreement by the client.

11 PUBLIC ENGAGEMENT

- 11.1 The potential for the archaeological works to contribute to the advancement of educational or community benefits through public engagement has been considered. This potential is currently assessed to be low because of the limited duration and extent of the works and the low archaeological potential of the area.
- 11.2 Headland proposes no further additional public engagement beyond dissemination of the results as described above. This position will be kept under review as the works progress and the results become known. If circumstances change then potential public engagement activities – for example, press releases or other publicity - will be discussed with GGAT and the client.

12 HUMAN REMAINS

- 12.1 All finds of human remains will be reported to the consultant/client/coroner/curator. Ordinarily none will be excavated during the course of the present program of work. If human remains are to be excavated during subsequent work, a license will be gained from the Ministry of Justice in accordance with Section 25 of the 1857 Burial Act. All excavation and treatment of cremated and inhumed human remains will be undertaken in cognisance of ClfA Technical Paper Number 13 (Brickley & McKinley & 2004) and relevant English Heritage guidelines (2005).

13 COPYRIGHT

- 13.1 Copyright will be retained by Headland Archaeology (UK) Ltd. Headland will licence the client, GGAT and other bodies as necessary for use in matters relating to the project and for use of the project archive by the relevant museum. This licence will also extend to non-commercial use by the GGAT HER.

14 PUBLICITY

- 14.1 No press releases or publicity material will be issued without prior approval of the client. GGAT will be offered the opportunity to be acknowledged in any press release etc.

15 BIBLIOGRAPHY

Archaeological Archives Forum Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (published by the IfA 2007).

Brickley M & McKinley J 2004 Guidelines to the standards for recording human remains (IfA Paper No 7).

Chartered Institute for Archaeologists, 1990 (revised 2014). Code of Approved, Practice for the Regulation of Contractual Arrangements in Field Archaeology;

Chartered Institute for Archaeologists, 2020. Standards and Guidance for the collection, documentation, conservation and research of archaeological material;

Chartered Institute for Archaeologists, 2020. Standards and Guidance for the creation, compilation, transfer and deposition of archaeological archives;

Chartered Institute for Archaeologists, 2020. Code of Conduct;

English Heritage 2011, Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (second edition).

English Heritage Guidance for best practice for treatment of human remains from Christian burial grounds in England (Church Archaeology Human Remains Working Group Report 2005).

English Heritage Management of Research Projects in the Historic Environment: the MoRPHE Project Managers' Guide (2006).

National Panel for Archaeological Archives in Wales: National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales 2017. <http://www.welshmuseumsfederation.org/en/news-archive/resources-landing/Collections/national-standard-and-guidance-for-collecting-and-depositing-archaeological-archives-in-wales-2017.html>

Mott MacDonald 2020. Pengarnddu Service Reservoir Assessment of the Significance of the Impact of Development on Historic Landscape (ASIDOHL2) June 2020

Richards, J.C., Richards, J., and Robinson, D., (Eds), 2000. Digital Archives from Excavation and Fieldwork: Guide to Good Practice (Second Edition), Archaeology Data Service;

Society of Museum Archaeologists, 1993. Selection, Retention and Dispersal of Archaeological Collections: Guidelines for use in England, Wales and Northern Ireland;

Society of Museum Archaeologists, 1995. Towards an Accessible Archaeological Archive, The Transfer of Archaeological Archives to Museums: Guidelines for use in England, Northern Ireland, Scotland and Wales;

The Welsh Archaeological Trusts, 2018. Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs). <http://www.ggat.org.uk/her/downloads/Guidance%20for%20the%20Submission%20of%20Data%20to%20Welsh%20HERs.pdf>

Watkinson D & Neal V First aid for finds, (Third Edition 1998).