CPAT Report No. 1826

Rhyd y Groes wind farm

Archaeological Watching Brief

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CLWYD-POWYS ARCHAEOLOGICAL TRUST

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The Clwyd-Powys Archaeological Trust is a Registered Organisation with the Chartered Institute for Archaeologists

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Summary

In October 2021, Clwyd-Powys Archaeological Trust were invited by TPG Wind Ltd to undertake a watching brief during initial groundworks at the Rhyd y Groes wind farm on Anglesey. This was associated with stage 1 of the groundworks that precede the upgrading of the wind farm at Rhyd y Groes. The work consisted of the stripping of an area for the installation of aggregate, with monitoring by an archaeologist. The excavation did not impact any archaeological resource and no features or finds were discovered.

Crynodeb

Fis Hydref 2021, gwahoddwyd Ymddiriedolaeth Archaeolegol Clwyd-Powys gan TPG Wind Ltd i gynnal briff gwylio yn ystod gwaith cychwynnol paratoi tir yn fferm wynt Rhyd y Groes ar Ynys Môn. Roedd hyn yn gysylltiedig â chyfnod 1 gwaith paratoi tir ymlaen llaw i uwchraddio'r fferm wynt yn Rhyd y Groes. Roedd y gwaith yn cynnwys stripio ardal ar gyfer gosod agreg, gydag archaeolegydd yn monitro'r gwaith. Ni chafodd y gwaith cloddio effaith ar unrhyw adnodd archaeolegol ac ni ddaethpwyd o hyd i unrhyw nodweddion neu ddarganfyddiadau.

1 Introduction

1.1. The Clwyd-Powys Archaeological Trust (CPAT) were commissioned to undertake a programme of archaeological monitoring on behalf of TPG Wind Ltd as mitigation for necessary infrastructure work. This is in connection with Stage 1 of a project known as Rhyd y Groes Wind Farm (repowering) (planning reference 20C102L/EIA/1E). It is located near Amlwch on Anglesey (SH 4083 9273) (Fig. 1).

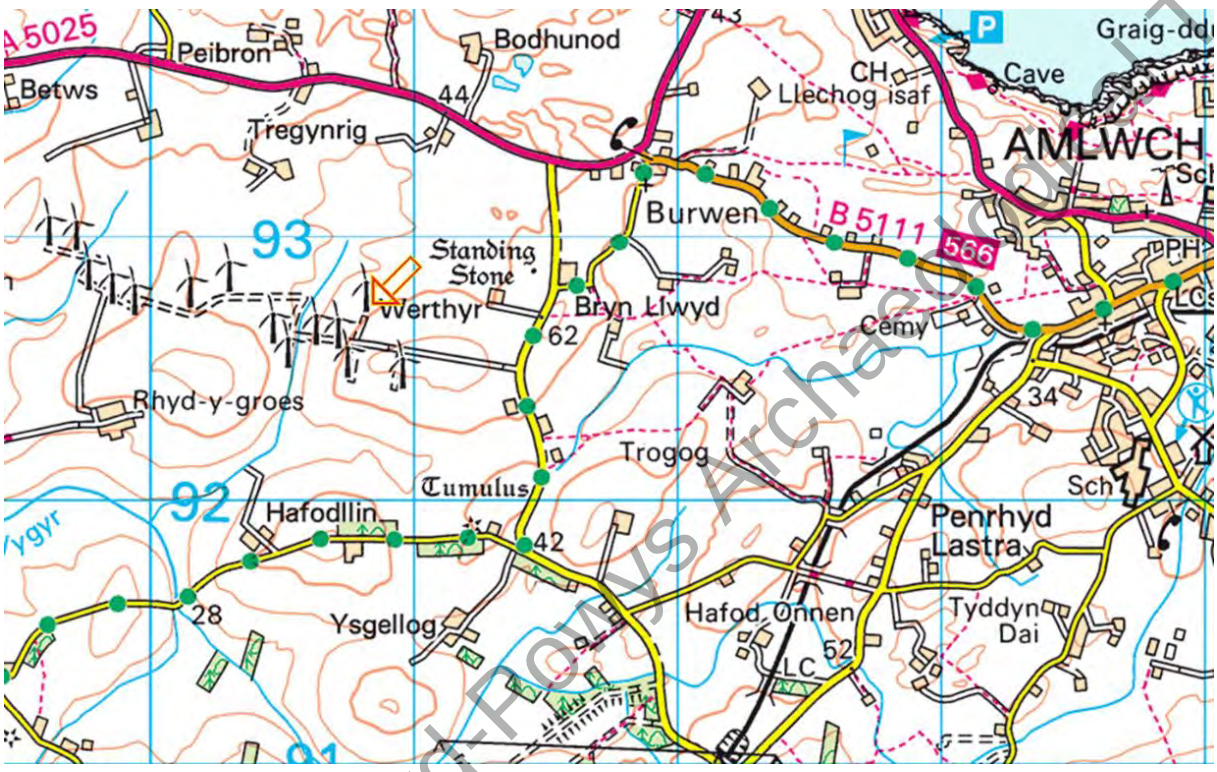

Fig. 1a Location of groundworks at Rhyd y Groes wind farm (general)

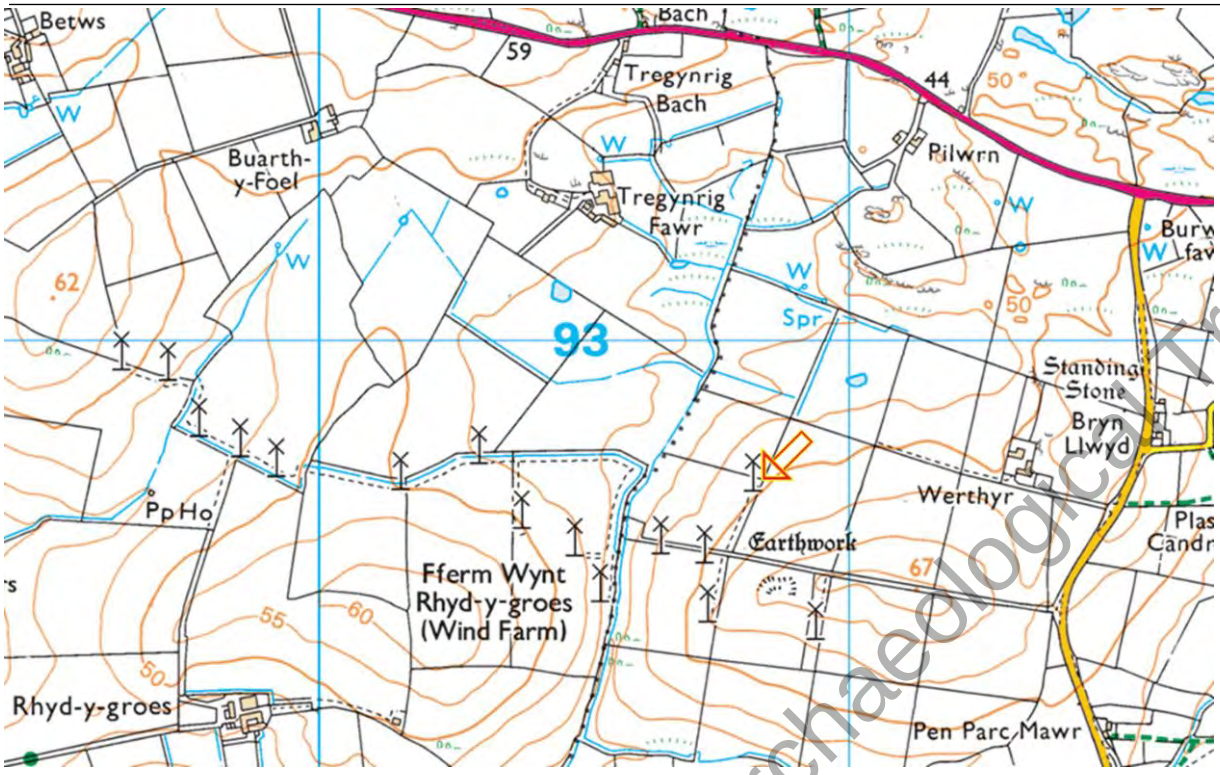

Fig. 1b Location of groundworks at Rhyd y Groes wind farm (detail)
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1.2. Wessex Archaeology's Heritage Impact Assessment which supported the planning application identified assets 14 and 51 in close proximity to Stage 1 (Fig. 2), an Iron Age – Romano-British cropmark enclosure (HER 5199) and an undated Holloway (HER 38099).

Fig. 2 Wessex Archaeology's Heritage Impact Assessment map showing heritage assets that may be in proximity to all stages of works, 2014

1.3. The current work comprises preliminary works for a more extensive programme of construction including groundworks which could impact on buried archaeological remains. Fig. 3 shows the original boundary of the application, and where the current work lies in relation to the development and to known heritage assets as plotted by Wessex Archaeology in their Heritage Assessment.

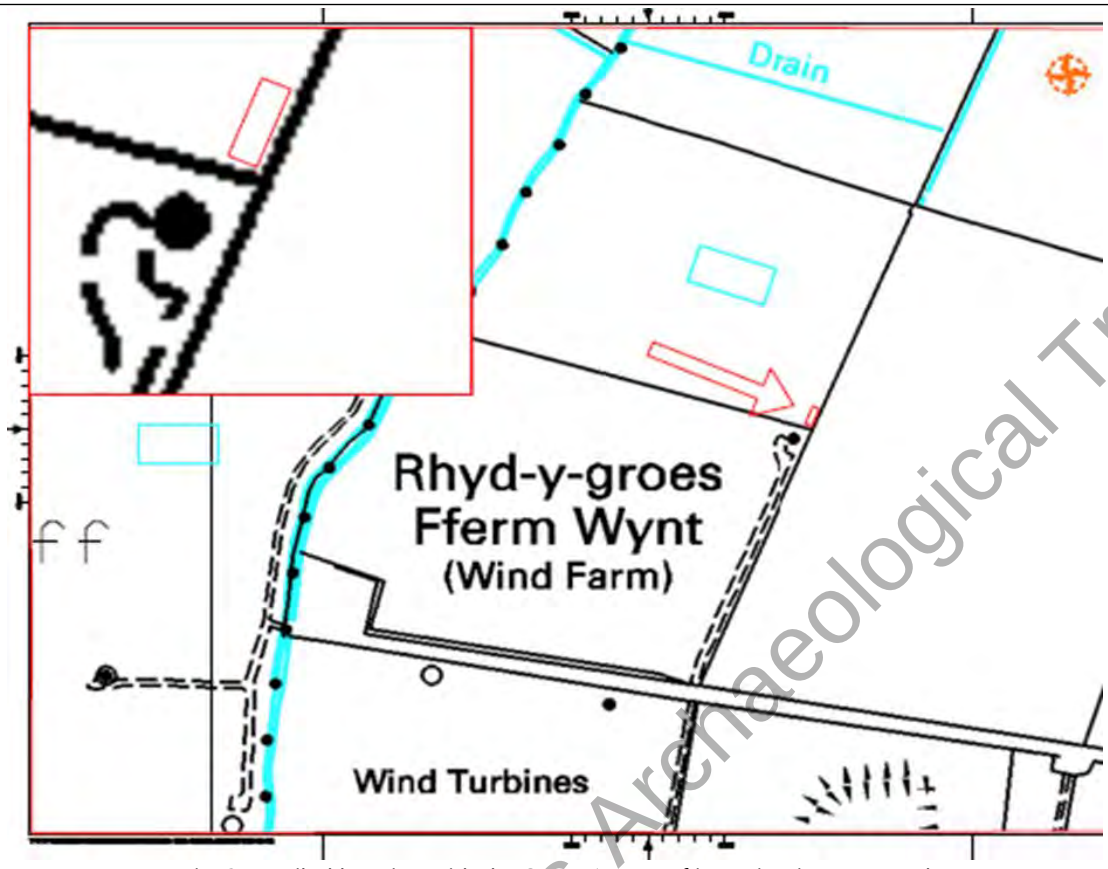

Fig. 3 Detailed location with the Stage 1 zone of investigation (arrowed)

1.4. The original aim of mitigation for the proposed groundworks was to ensure that any disturbance of archaeological remains is appropriately investigated and recorded by an archaeologist on site, who also supervised the topsoiling and ground reduction works.

1.5. In accordance with the outline mitigation strategy proposed in the ES (Chapter 12, p.376) depending on the results of the initial topsoil strip, a subsequent phase of excavation, employing a strip, map and recording approach, would be required. However, as the first stage of excavation produced nothing of archaeological interest, it is unlikely at this stage to require further work. Any future topsoil removal will require a separate WSI to be approved.

2 Historical Background

2.1. Later prehistory is particularly evident on Anglesey. Anglesey is prolific with prehistoric earthworks and megalithic monuments, and funerary sites recently have come to prominent attention due to expansive infrastructure projects. Near to the stage 1 works area, there seems to be no evidence for barrows/cairn structures or complexes, however, prehistoric curvilinear/rectilinear earthworks have been identified in earlier desk based assessments.

2.2. Direct evidence of settlement activity dating from the Roman period is currently absent within close proximity to the works area, and is relatively rare in Anglesey as a whole, though Romano-British settlements are found elsewhere on the island. The Menai Strait was clearly a focus for Roman activity and this is illustrated by the discovery of the Roman settlement at Tai Cochion (PRN 28425), on the Anglesey side of the strait some 8.5km to the south-west of the Britannia Bridge. The discovery of Roman copper ingots (PRN 38250) by divers in the

strait suggests that it was used by shipping in the period. Northern Anglesey has relatively little evidence of Roman occupation or activity, but there is a possibility of Roman presence in the area; in 1990 a possible Roman fortlet was identified at Cemlyn Bay in the cropmarks during a drought.

2.3. The medieval period is well represented topographically on Anglesey, however northern Anglesey is generally less well understood than the more populated parts to the south. Recent excavations have revealed early medieval cemeteries around Wylfa Nuclear Power Station as well as possibly post-Roman settlements towards the west of Cemlyn. There is a possible martyrium at a cemetery site excavated in 2018 near Trywn Wylfa/Wylfa Head. Hagiographically, post-Roman and medieval saints have established several church sites in the area near to the assessment area, such as the churches at Llanbadrig and Rhosbeirio. Both church sites are said to be early medieval; the current structures, however, are significantly later.

2.4. The most obvious extant features around the stage 1 works area are field systems, most of which have probably existed in their current state since late to post-medieval times, but may be significantly older. The farmsteads and farm complexes associated with these field systems are seen in features that still exist around Rhyd y Groes today; animal pens such as drystone sheepfolds as well as functional outbuildings from the post-mediaeval/pre-modern era may still be present.

2.5. Many post-medieval churches and places of worship are near to Rhyd y Groes wind farm, such as Capel Bethesda outside of Cemaes as well as its associated burial ground, however, this has fallen out of use as a place of worship. Today the area has many post-medieval farms and modern housing, as can be seen above in figs. 1 & 2.

3 Watching Brief

3.1. The watching brief was conducted on the 11th of October in accordance with the Chartered Institute for Archaeologists' (CIfA) (2014) *Standard and Guidance for an Archaeological Watching Brief*. The monitoring of the excavation by an archaeologist was deemed necessary as outlined above in sects. 1.2 to 1.5.

3.2. The excavation was a stripping of the topsoil in an area approximately 10 x 5 metres. The stripping was to allow the installation of aggregate to form a road surface for heavy plant to access through the field and minimise damage. Fig. 4 shows the point of ingress for the field that is the focus of the stripping, and as it appeared pre-excavation.

Fig. 4 The area to be stripped pre-excavation. Viewed from north west. CPAT photo 4955-0001

3.3. The excavation was done by a 1.8 tonne mechanical excavator, and the ground was reduced in controlled strips. The spoil was taken by a large trailer driven by a full size farm/utility tractor (fig. 5). The stripping was done with utmost care so as not to disturb any potential features that may exist directly beneath the surface, especially as this corner of the field was recently seeded by the land owner. The top soil was approximately up to 0.3 m in depth and was a dark grey clayey silt.

Fig. 5 Illustration of regular intervals of soil kept to by the excavator. Viewed from west. CPAT photo 4955-0003

3.4. The only notable discovery during the monitoring was a stony deposit that appeared towards the western part of the excavation area (fig. 6). Upon manual excavation, there were pieces of modern plastic waste discovered – including a crisp packet with an identifiable expiration date from 1997 – that was below the stony deposit. It was concluded that the stone was probably debris from damage to the dry-stone wall near to the gate at the entrance to the field, which was directly south of the excavation area.

Fig. 6 Stony deposit found close to the field entrance. Viewed from north. CPAT photo 4955-0007

3.5. The excavation concluded with no archaeological resource identified. The subsoil ranged from 0.3 to 0.5 m deep near to the field boundaries, but inwards from the field boundary (approximately 1 to 1.5 m from the fence to the east) the subsoil increased in depth (see fig. 7 & 8). The excavation did not exceed a depth of 0.6 m as it had to remain level to provide a good base for importing aggregate. The excavation did not find any archaeological resource such as cut features or artefactual finds.

Fig. 7 Closing shot of excavation showing sterile soil and maximum depth reached. CPAT photo 4955-0012

Fig. 8 Section shot of the limit of excavation, showing maximum depth reached. CPAT photo 4955-0013

4 Conclusions

4.1. At the conclusion of the stripping, there were no archaeological features or finds discovered. The archaeological resource in this area is not present. Although some subsoil was left in the northwest part of the excavation in order to minimise the aggregate required, the lack of finds or features apparent in the subsoil or natural base soil left the archaeologist satisfied that the area was sterile, with only modern activity apparent in the excavation area.

4.2. Any further excavation should be actively monitored by archaeologists, but this area, in accordance with the stages of development outlined in the WSI, should not need further excavation and thus should not require monitoring.

5 Archive deposition Statement

5.1. The project archive has been prepared according to the CPAT Archive Policy and in line with the CIfA *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives guidance* (2014). The digital archive only will be deposited with the Historic Environment Record, Clwyd-Powys Archaeological Trust and the paper/drawn/digital archive with the National Monuments Record (RCAHMW).

Archive summary

CPAT Event PRN: 140388

14 digital photographs, CPAT film no 4955

Appendix 1: CPAT WSI 2568

1 Introduction

1.1. The Clwyd-Powys Archaeological Trust (CPAT) have been commissioned to undertake a programme of archaeological monitoring as mitigation works on behalf of TPG Wind Ltd in connection with Stage 1 of a project known as Rhyd y Groes Wind Farm (repowering), (SH 4083 9273) on Anglesey (Fig. 1) (planning reference 20C102L/EIA/RE).

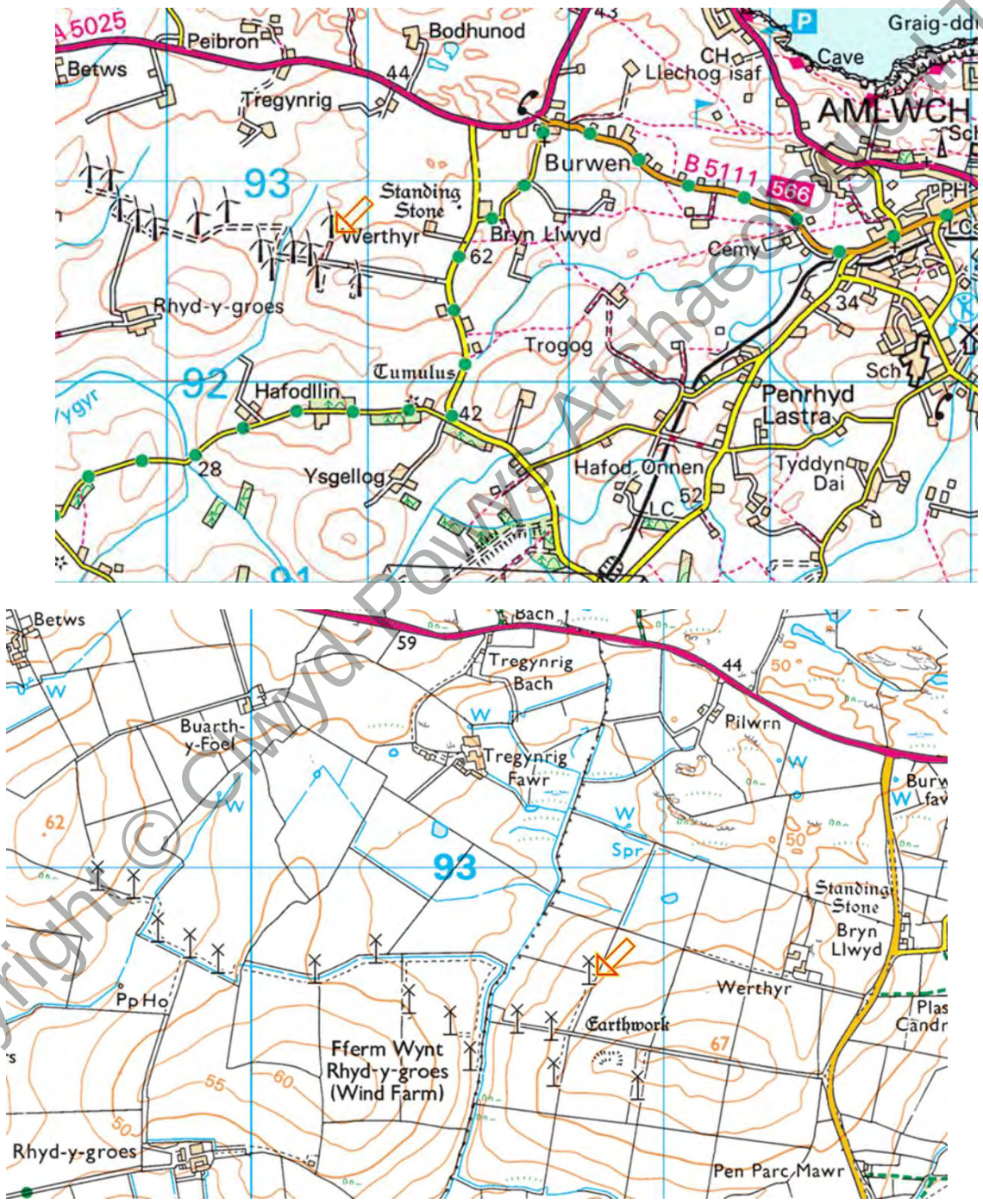

Fig. 1: The location of Rhyd y Groes wind farm with the Stage 1 zone of investigation arrowed
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1.2. Wessex Archaeology's Cultural Heritage Assessment identified assets 14 and 51 in close proximity to Stage 1 (Fig. 2), an Iron Age – Romano-British cropmark enclosure (HER 5199) and an undated Holloway (HER 38099).

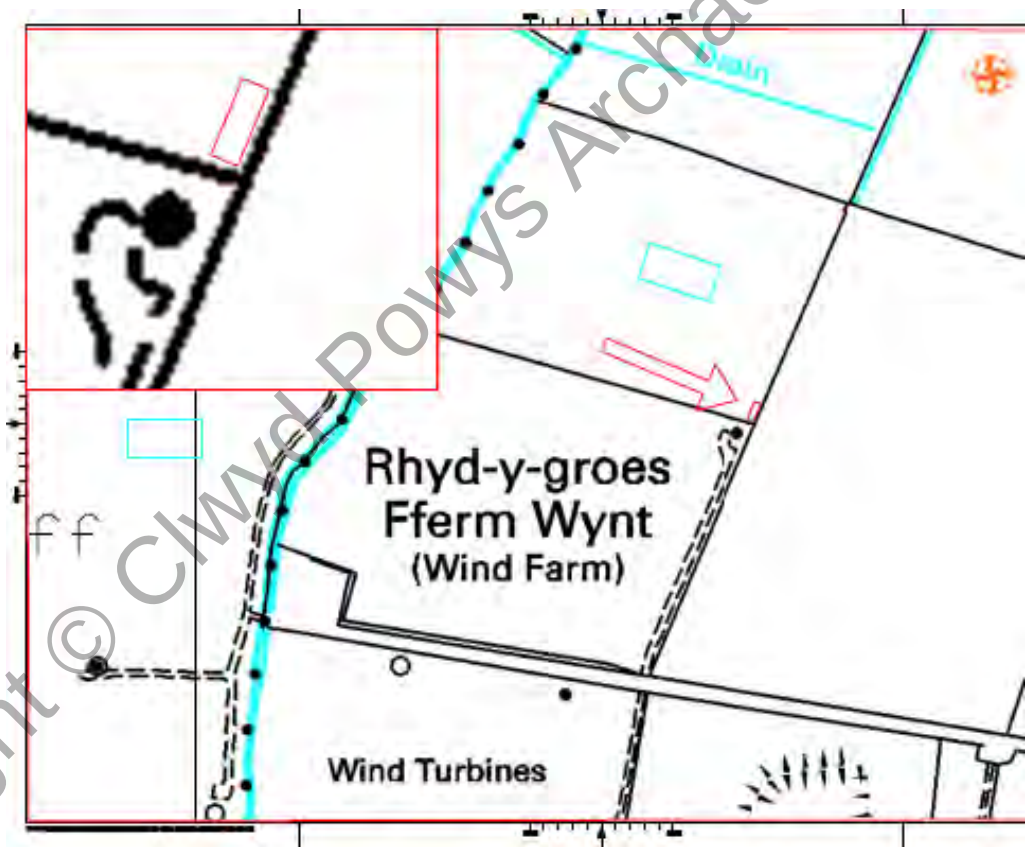

Fig. 2: Detailed location with the Stage 1 zone of investigation arrowed (and plotted against Figure 1 of Wessex Archaeology's Heritage Impact Assessment 2014, above)

1.3. This document presents a Written Scheme of Investigation (WSI) for the archaeological mitigation and has been formulated through discussion with the Gwynedd Archaeological Planning Service (GAPS) and is subject to their approval.

1.4. The current work comprises Stage 1 of a more extensive programme of construction including groundworks which could impact on buried archaeological remains. Figure 2 shows the original boundary of the application, and where the current work lies in relation to the development and to known heritage assets as plotted by Wessex Archaeology in their Cultural Heritage Assessment. Figure 3 shows the general arrangements for the development, with turbine locations, access tracks, cable routes and related infrastructure.

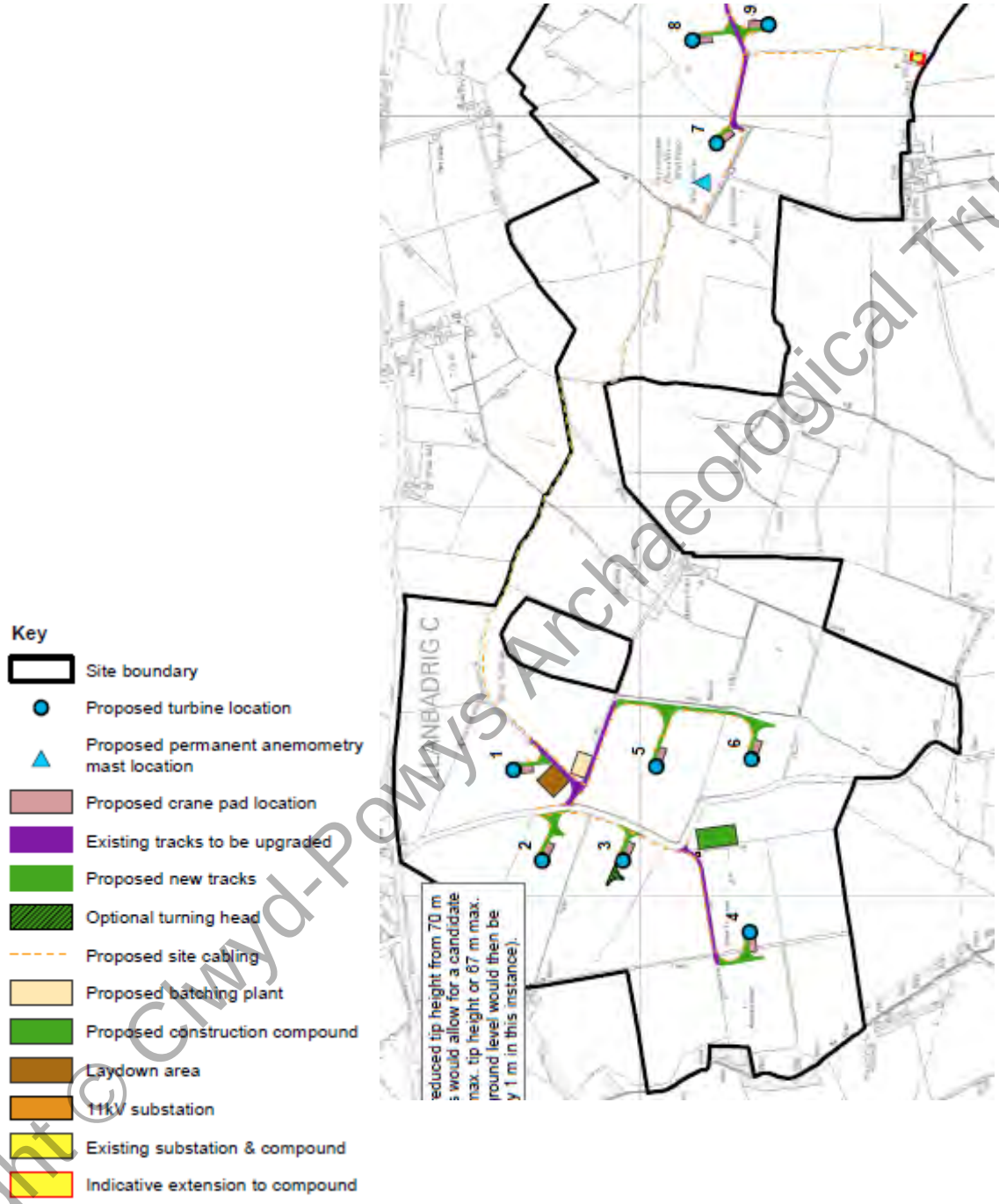

Figure 3 *Details of overall permitted scheme (amended site layout June 2016)*

1.5. The permitted scheme is for 11 turbines up to 79m tip height. The scheme involves the following groundworks: the creation of crane pads, foundations, underground electricity cables, improvements to parts of the existing track, works to the highway, the creation of new access tracks, an extension to the existing 33kV substation, the erection of a new 11kV substation, the erection of an anemometer and temporary construction and storage compounds and batching plant (which would also entail the de-commissioning of the existing wind farm) at Rhyd y Groes Wind Farm, Rhosgoch.

1.6. The Stage 1 works relate to construction works associated with T11 (Fig. 4).

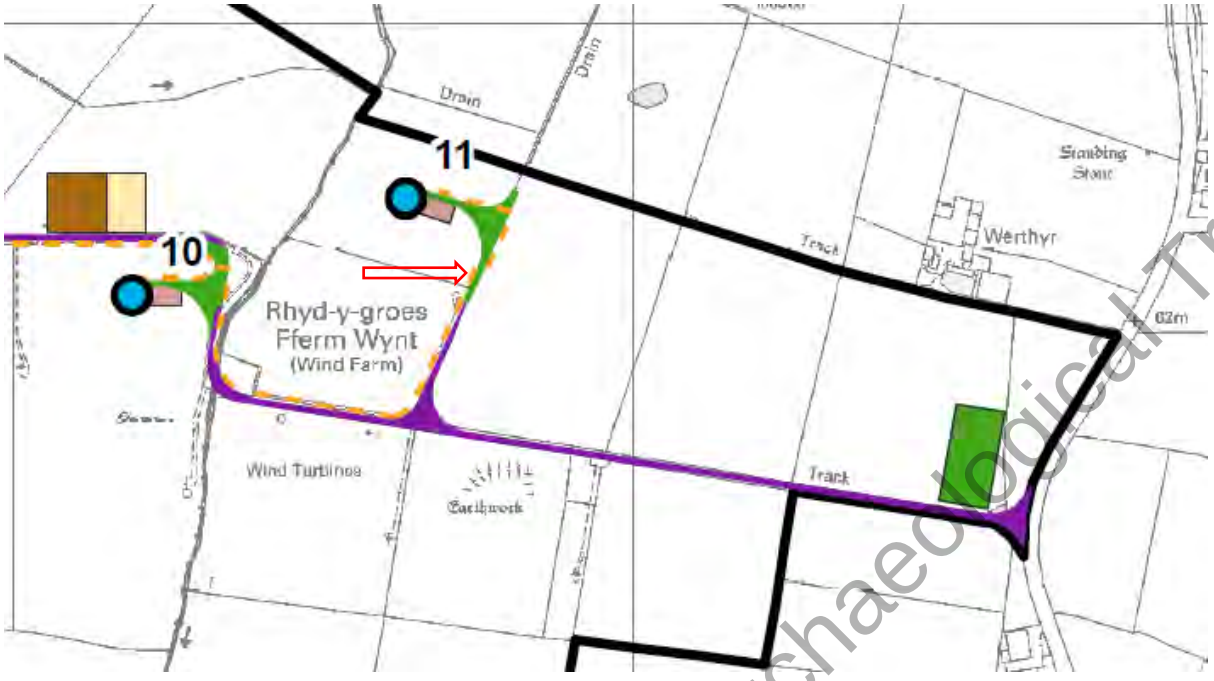

Figure 4 *Detail from Fig. 3 showing area associated with the Stage 1 works*

2 Mitigation

2.1. The aim of mitigation for the proposed groundworks is to ensure that any disturbance of archaeological remains is appropriately investigated and recorded by an archaeologist on site, who would be supervising the topsoiling and ground reduction works.

2.2. For any underground section, there will be a watching brief during both the topsoil strip and subsequent cable trench excavations.

2.3. In accordance with the outline mitigation strategy proposed in the ES (Chapter 12, p.376) depending on the results of the initial topsoil strip, a subsequent phase of excavation, employing a strip, map and recording approach, might be required. The nature and extent of such excavations, if required, would be agreed in advance with both GAPS and TPG Wind Ltd. Any additional work would be the subject of a separate WSI.

3 Standard and Guidance

3.1. The archaeological work will be undertaken in accordance with the following the Chartered Institute for Archaeologists' (CIfA) standards and guidance:

Standard and Guidance for Archaeological Watching brief (2014)
Standard and Guidance for Archaeological Field Evaluation (2014)
Standard and Guidance for Archaeological Excavation (2014)
Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (2014)
Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives (2014)

3.2. The Clwyd-Powys Archaeological Trust is a CIfA Registered Organisation and as such agrees to abide by the Institute's *Code of Conduct* (2014). The project will be managed by an appropriately qualified professional archaeologist who is a Member of the CIfA.

4 Methodology

1. Archaeological supervision and investigation

4.1. Archaeological supervision will be undertaken to monitor the following works:

- Soil stripping for access tracks, compounds, crane pads, foundations, cable route trenches, sub-station extension, and batching plant.
- It will also guide contractors and heavy machinery away from any archaeologically sensitive asset or area, which lie outside the approved zone of groundworks

4.2. All soil stripping will be conducted under the supervision of an archaeologist, using a machine with a broad, flat, toothless blade. Work will be supervised by one or more archaeologists at all times, depending on how many machines are operating at any given time. Soil stripping will remove all overburden onto the surface of the natural subsoil, or the first significant archaeological horizon which is recognised.

4.3. Isolated archaeological features and artefacts will be investigated and recorded as work progresses, although should any significant archaeology be revealed no further construction work will be permitted until an agreement has been reached with GAPS and TPG Wind Ltd to allow for an appropriate level of investigation and recording under a strip, map and excavate approach.

2. General excavation methodology

4.4. The excavation of archaeological features or deposits will be undertaken by hand using the conventional techniques for archaeological excavation:

- All features will be located as accurately as possible on an overall plan of the development at an appropriate scale, showing boundaries depicted on Ordnance Survey mapping;
- Contexts will be recorded on individual record forms, using a continuous numbering system, and be drawn and photographed as appropriate;
- Stratigraphic units will be assigned a record number and entered along with a description on an individual record form or trench recording sheet as appropriate;
- Plans will be drawn on permatrace to a scale of 1:10, 1:20 or 1:50, as appropriate;
- All photography will be taken using a digital SLR camera with a minimum resolution of 12 mega pixels, including a metric scale in each view, with views logged in a photographic register;
- In the event of human burials being discovered the Ministry of Justice will be informed. The remains will initially be left in situ, and if removal is required, a MoJ licences will be applied for under the Burial Act 1857;
- In the event of finding any artefacts covered by the provisions of the Treasures Act 1996, the appropriate procedures under this legislation will be followed.

3. Artefacts

4.5. All artefacts and environmental samples will be treated in a manner appropriate to their composition and a sampling strategy will be developed as appropriate:

- All archaeologically significant finds recovered during the watching brief will be retained and located accurately using GPS or total station;
- All stratified finds will be collected by context, or where appropriate, individually recorded in three dimensions. Unstratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest.
- All finds and samples will be collected, processed, sorted, quantified, recorded, labelled, packed, stored, marked, assessed, analysed and conserved in a manner appropriate to their composition and in line with appropriate guidance;
- Arrangements will be made to assess and study any artefacts, assemblages and environment samples;
- Any artefacts recovered during the recording process will be deposited with the nearest regional or county Museum, subject to the permission of the owner. The artefacts will be deposited along with a copy of the site report including a detailed list of all artefacts recovered.

4. Assessment of the Site Archive

4.6. Following the completion of fieldwork the site archive will be assessed to determine the potential of the data to contribute to archaeological knowledge and to identify any further study necessary. This will be completed within three months of the conclusion of all on site fieldwork and if the evidence is complex then the results of the assessment will be submitted to GAPS for approval, as follows:

- An interim report of the excavation results.
- A full description of the site archive.
- An assessment of the potential of the site archive for further analysis including assessments of environmental samples, artefacts and ecofacts.
- A programme and costing for the full analysis of the site archive, publication of the results and deposition of the archive.
- A final quotation for post excavation analysis, reporting and publication will then be submitted to the client.

5. Report

4.7. If the evidence gathered from the mitigation is not complex and does not need a detailed stand-alone post-excavation assessment (PXA), or subsequent to approval and completion of a PXA and updated project design, an illustrated report will be prepared containing conventional sections to include:

- Non-technical summary
- Introduction
- Site location
- Archaeological Background
- Aims and objectives
- Methodology

- A full, phased stratigraphic discussion of the archaeological features
- Artefactual summary
- Conclusions
- An interpretive discussion of the results, placing them in a local and regional context
- The results of assessment of artefacts and ecofacts carried out by suitable specialists
- Supporting photographs, illustrations and plans at appropriate scales
- Supporting data – tabulated or in appendices
- References
- Appropriate appendices on archives and finds

4.8. The report summary will be provided in English and Welsh, in accordance with the *Guidance for the Submission of Data to the Welsh Historic Environment Records* (HERs) V1 (July 2018).

4.9. A draft version of the report will be provided to GAPS for approval prior to the production of the final version.

4.10. Copies of the report will be provided to the client, GAPS, the regional HER and the NMR.

6. Site archive

4.11. The overall archive will conform to guidelines described in *Management of Research Projects in the Historic Environment* (MoRPHE), Historic England 2015, the CIfA (2014) *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* and *The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales* (NPAAW, 2017) and *Guidance for the Submission of Data to the Welsh Historic Environment Records* (HERs) V1 (July 2018).

4.12. The paper and digital archive will be deposited with the National Monuments Record (NMR), RCAHMW, including a copy of the final report. This archive will include all written, drawn, survey and photographic records relating directly to the investigations undertaken.

4.13. Selection and retention policies for the archaeological archive will employ CIFA guidance (Selection Toolkit)[1] as appropriate in discussion with the repository as advised by CIFA. However, this can only be achieved once the project creates any significant archival material, and once a suitable repository has been found, and so would form part of the post-excavation assessment process. The decision would be made by CPAT informed by the research potential and heritage significance of the archaeological evidence uncovered by the site work.

For the material archive CPAT has a retention policy for artefacts which follow these priorities:

High priority for retention

- Rare finds from stratified and unstratified contexts
- Prehistoric and early medieval assemblages
- Key stratigraphic dating assemblages crucial to the structural development of the site
- Assemblages which are not well represented in museum collections

1.1. 1 https://www.archaeologists.net/selection-toolkit/toolkit

High priority for disposal

- Unstratified material unless intrinsically dateable and unusual/rare
- Artefacts from residual/intrusive contexts unless of key stratigraphic importance to the site
- Assemblages already well represented in museum collections
- Unprocessed environmental/soil samples

7. Data management plan

1.1. The project will be conducted in accordance with CPAT's data management policy. All paper records will be collated, catalogued and labelled with the unique project code. All digital data will follow strict file naming, to include the unique project code, and be sorted into a standard series of sub-folders. The digital data will be catalogued, including a list of file types and relevant software, and managed on an Excel spreadsheet.

5 Resources and programming

5.1. The start of groundworks is scheduled for 11th October 2021. It will comprise a topsoil strip to enable access road construction in the vicinity of Turbine 11. The overall construction programme is presented in the table below effective from March 2023:

Task Name	1	2	3	4	5	6	7	8	9	10	11	12
Mobilisation												
Access and site tracks												
Substation and control building												
Foundations												
Cabling												
Hard standings												
Turbine erection												
Commissioning of Wind Farm												
Reliability testing												
Restoration Works												
Demobilisation												

5.2. The programme of mitigation will be undertaken by a team of skilled archaeologists under the site direction of a Member of CIfA, with overall supervision by CPAT's Principal Archaeologist. CPAT is also a CIfA Registered Organisation and as such agrees to abide by their *Code of Conduct* (2019) and the *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (2014).

5.3. All report preparation will be completed by or with the assistance of the same field archaeologist(s) who conducted the site work.

5.4. The client should be aware that in the event that significant archaeological remains are revealed there may be a requirement for more detailed excavation and specialist services. Any further work over and above the original watching brief, excavation and reporting would be the subject of a separate WSI and costing.

6 Monitoring

6.1. The timetable for the mitigation works has yet to be agreed with the client. GAPS will be informed of the timetable as soon as this becomes available and will be kept informed as work progresses in order to arrange monitoring as necessary.

7 Health and Safety

7.1. Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.

7.2. A project-specific Risk Assessment and Method Statement (RAMS) will be prepared prior to the commencement of on-site works

7.3. All site staff will undertake the Contractor's safety induction and work within the site constraints. Emergency arrangements will conform to the Contractor's Emergency Plan.

7.4. Access, egress and movement within the scheme will be undertaken according to protocols agreed with the Contractor.

7.5. The use of PPE will conform to the Contractor's site rules. These will include but not be limited to the following:

- hi-viz clothing to class EN471 will be worn at all times
- safety footwear and eye protection will be worn at all times
- suitable gloves and other PPE will be worn as directed
- hard hats will be worn in proximity to working plant

7.6. It has been assumed that sufficient and appropriate welfare facilities will be provided by the Contractor.

8 Insurance

CPAT is covered by appropriate Public and Employer's Liability insurance, as well as Professional Indemnity insurance to the values identified below (copies of certificates available on request.

9 References

Rhyd y Groes Repower Wind Farm Written Statement Volume 1 of 5 April 2015 Natural Power Consultants for TPG Wind Ltd

Rhyd y Groes Repower Wind Farm Scheme Amendment Statement June 2016, Natural Power Consultants for TPG Wind Ltd

Wessex Archaeology March 2014 *Rhyd–y-Groes Repower Anglesey Cultural Heritage Assessment*

Tim Malim

Principal Archaeologist

9th September 2021