Cnewr 1, Sennybridge Powys Watching Brief Report

Planning Application Number: 14/11127/FUL (Brecon Beacons)



Report by: Trysor

For: TGVHydro Ltd

November 2016



Cnewr 1, Sennybridge, Powys Watching Brief Report

Planning Application Number: 14/11127/FUL (Brecon Beacons)

By

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Trysor Project No. 2016/530

For: TGVHydro Ltd

November 2016

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Cover photograph: Trench through former line of tramway, looking southeast.

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RHIF YR ADRODDIAD - REPORT NUMBER: Trysor 2016/530

DYDDIAD 7^{fed} Tachwedd 2016 DATE 7th November 2016

Paratowyd yr adroddiad hwn gan bartneriad Trysor. Mae wedi ei gael yn gywir ac yn derbyn ein sêl bendith.

This report was prepared by the Trysor partners. It has been checked and received our approval.

JENNY HALL MCI fA Jenny Hall

PAUL SAMBROOK MCIfA Paul Sambrook.

Croesawn unrhyw sylwadau ar gynnwys neu strwythur yr adroddiad hwn.

We welcome any comments on the content or structure of this report.

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Trysor is a Registered Organisation with the Chartered Institute for Archaeologists and both partners are Members of the Chartered Institute for Archaeologists, www.archaeologists.net

Jenny Hall (BSc Joint Hons., Geology and Archaeology, MCIfA) had 12 years excavation experience, which included undertaking watching briefs prior to becoming the Sites and Monuments Record Manager for a Welsh Archaeological Trust for 10 years. She has been an independent archaeologist since 2004 undertaking a variety of work that includes upland survey, desk-based appraisals and assessments, and watching briefs.

Paul Sambrook (BA Joint Hons., Archaeology and Welsh, MCIfA, PGCE) has extensive experience as a fieldworker in Wales. He was involved with Cadw's pan-Wales Deserted Rural Settlements Project for 7 years. He also undertook Tir Gofal field survey work and watching briefs. He has been an independent archaeologist since 2004 undertaking a variety of work including upland survey, desk-based appraisals/assessments, and watching briefs.

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1. Summary

- 1.1 In July 2016, Trysor undertook a watching brief during groundworks for an electricity cable at SN8911722044 as one of the conditions on a consented hydro scheme at Cnewr, near Sennybridge.
- 1.2 The excavation of the narrow cable trench across the line of the former tramway was watched.
- 1.3 The former tramway had previously been removed at this point and the existing earthwork was a modern bank along the same line with a ditch/drain along its southern edge.

2. Copyright

2.1 Trysor hold the copyright of this report and of the paper and digital archive. Further paper copies may be made of this report without gaining permission to reproduce.

3. Introduction

- 3.1 TGV Hydro Ltd, of CRiC, Beaufort Street, Crickhowell, NP8 1BN, commissioned Trysor heritage consultants to write a Written Scheme of Investigation for Cnewr 1, one of two consented, micro-hydro schemes on the Cnewr estate. Cnewr 1 relates to planning application number: 14/11127/FUL (Brecon Beacons) and utilises the Nant Cnewr Fawr.
- 3.2 Trysor produced a written scheme of investigation for a watching brief, see Appendix A, and it was approved by the archaeological advisor to Brecon Beacons National Park.

4. The development

- 4.1 The development consists of a high head micro hydro scheme, with two intakes and shared forebay tank, pipeline and turbine house. It takes water from the Nant Cnewr Fawr at SN9037622090 and SN9040522220 and returns it at SN8928322158, see Figure 1.
- 4.2 The electricity cable runs from SN8928322158 to approximately SN8905522052m, see Figures 1 & 2.

5. Planning context of the proposed development

5.1 An archaeological condition was imposed on the granting of the planning application.

The developer will ensure that a suitably qualified archaeological contractor is present during excavation of trenches though archaeologically sensitive areas so that an archaeological watching brief can be maintained.



The archaeological watching brief will be carried out in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority and must meet the standards laid down by the Institute of Archaeologists in their Standard and Guidance for an Archaeological Watching Brief.

A copy of the watching brief report shall be submitted to the Local Planning Authority for approval, to the Royal Commission on the ancient and Historical Monuments of Wales for inclusion on the National Monument Record, and to Clwyd Powys Archaeological Trust for inclusion in the Regional Historic Environment Record (HER) within two months of the fieldwork being completed.

Reason

To allow for recording of the structure of archaeological interest during the construction phase.

5.2 Trysor produced a written scheme of investigation for the evaluation, see Appendix A, and this was approved by the archaeological advisor to Brecon Beacons National Park.

6. Scope of Work

- 6.1 The written scheme of investigation (Appendix A) said that a watching brief would be undertaken on groundworks where the electricity cable trench crossed the former tramway CNE2016_007 (see Appendix A) at approximately SN8912022050, see Figure 2.
- 6.2 The watching brief was carried out in accordance with the Chartered Institute for Archaeologists' *Standard and Guidance for an Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014).



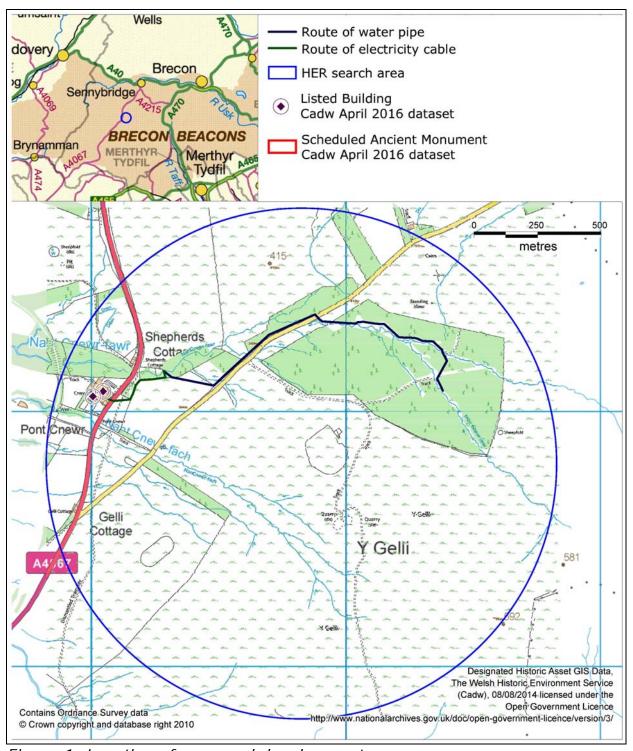


Figure 1: Location of proposed development



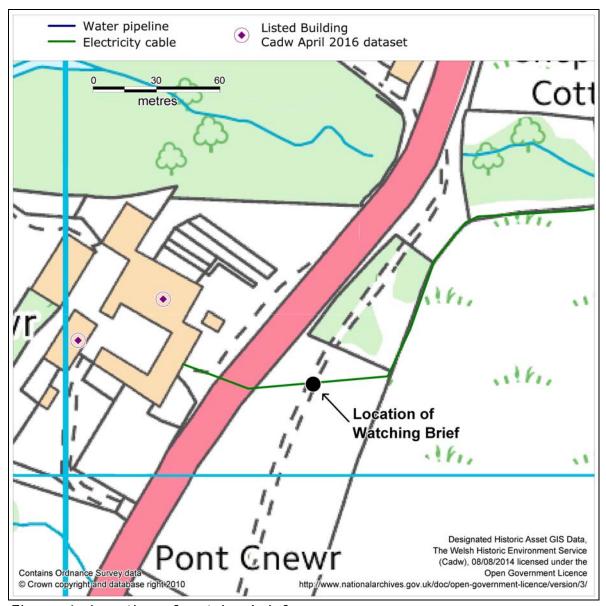


Figure 1: Location of watcing brief



7. The Development Site

- 7.1 The development site lies on a gentle northwest facing slope on the southern side of the Nant Cnewr Fawr, on Cnewr estate land.
- 7.2 The underlying strata at the development site consist of interbedded argillaceous rocks and sandstones, part of the St Maughans Formation. These rocks were formed from river deposits in the Devonian Period, approximately 398 to 416 million years ago.
- 7.3 Glacial till laid down over 2 million years ago in the Quaternary period overlies the hard rock.

8. Historical and Archaeological Overview

- 8.1 The Brecon Forest Tramroad network was created during the first half of the 1820s, to enable the raw materials of the Great Forest estate to be moved for export out of the district. A limestone quarry at Pwll Byrfe was initially favoured, but rapidly abandoned in favour of the lower-lying Penwyllt Quarry. The tramroad network ran southwards to the Swansea Canal at Gurnos, from where minerals could be sent by barge to Swansea and onwards through its busy port. This also gave access to the coal reserves of the upper Swansea valley around Ystradgynlais. Northwards, the Tramroad system went as far as Sennybridge, where limekilns were to produce the valuable lime fertiliser required on several farms owned by Christie in the Usk valley at Sennybridge, as well as at Cnewr. This also allowed Christie to supply the market for lime further away from the valuable limestone outcropping in the upper Swansea valley.
- 8.2 Cnewr Farm, one of Christie's main farms in the Great Forest, was built in 1821. It stood immediately alongside the main tramroad to Sennybridge and was supplied with the lime required to improve the holding via the tramroad, but also became an important point on the network. Lime sheds, stables and housing were all constructed at Cnewr to be of use to the operation of the tramroad system.
- 8.3 The tramroad bed, CNE2016_007, see appendix A, is still visible immediately to the east of the farm buildings at Cnewr, surviving as a linear feature, with sections of cuttings and embankments. There is no evidence within the development area and adjacent ground that the tramroad connected directly to the building complex.



9. Fieldwork Methodology

- 9.1 The watching brief was carried out on 15th July 2016. A narrow trench sufficient to take the electricity cable was cut across the earthwork bank at SN8911622043.
- 9.2 The site code used was CNE2016.

10. Site Stratigraphy

10.1 There was only one context, 001, a redeposited topsoil.

11. Photographs

11.1 Colour digital photographs were taken during the watching brief and excavation of trench using a 16M pixel camera. The following table describes the content of each photograph included in the project archive. The photographs are included in Appendix B at the end of the report.

Table 1: Photographs

Photo	Description	Date	Direction
Number		Taken	
CNE2016_111	Excavating the narrow cable trench through the earthwork bank along the line of the tramway	15/07/2016	Looking south southwest
CNE2016_112	Excavated trench through bank	15/07/2016	Looking east

12. Conclusion

12.1 The eastern end of the tramway in the field opposite the Cnewr estate farm had been removed in the past and the earthwork recreated as a narrower bank with a ditch on its upslope, eastern side. This destroyed and "recreated" section of the tramway bed runs from SN8911622034 north northeast for about 25 metres. Hence the development caused had no impact on the historic tramway bed.

13. Archive

- 13.1 The archive and a copy of the report and photographs will be deposited with the National Monuments Record, Aberystwyth. Photographs are in TIFF format, following the standard required by the RCAHMW.
- 13.2 A further copy of the report will be supplied to the Historic Environment Record at Clwyd-Powys Archaeological Trust, Llandeilo.



APPENDIX A WRITTEN SCHEME OF INVESTIGATION



CNEWR 1 HYDRO SCHEME, SENNYBRIDGE WRITTEN SCHEME OF INVESTIGATION PLANNING APPLICATION 14/11127/FUL

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CNEWR 1 HYDRO SCHEME, CNEWR ESTATE, SENNYBRIDGE, BRECON, POWYS WRITTEN SCHEME OF INVESTIGATION

Planning application – 14/11127/FUL (Brecon Beacons)

1. Introduction

- 1.1 TGV Hydro Ltd, of CRiC, Beaufort Street, Crickhowell, NP8 1BN, have commissioned Trysor heritage consultants to write a Written Scheme of Investigation for Cnewr 1, one of two consented, micro-hydro schemes on the Cnewr estate. This one relates to planning application number: 14/11127/FUL (Brecon Beacons) and utilises the Nant Cnewr Fawr.
- 1.2 The development runs between SN9038022081 and SN8928222158, east of the Cnewr estate buildings at Crai. The export electricity cable will run from SN8928222158 southwest to the estate buildings, see Figure 1.

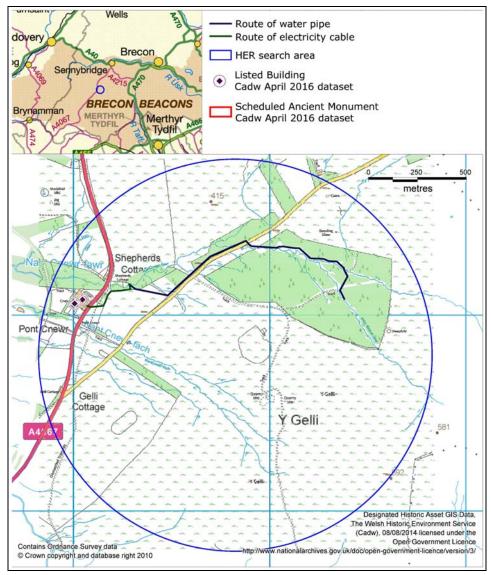


Figure 1: Location of the hydro scheme at Cnewr 1.



2. Objective of the Written Scheme of Investigation

2.1 The objective of this written scheme of investigation (WSI) is to specify the method to be used for a programme of archaeological work prior to or during construction of the consented hydro scheme for Cnewr 1 on the Cnewr Estate, near Sennybridge.

3. The development

- 3.1 The development consists of a high head micro hydro scheme, with two intakes and shared forebay tank, pipeline and turbine house. It takes water from the Nant Cnewr Fawr at SN9037622090 and SN9040522220 and returns it at SN8928322158.
- 3.2 The electricity cable runs from SN8928322158 to approximately SN8905522052.

4. Conditions on the planning consent

4.1 In granting approval for the application, the Local Planning Authority imposed a condition on the consent; the condition specifies the actions necessary to mitigate the impact of the development on the archaeological resource.

The developer will ensure that a suitably qualified archaeological contractor is present during excavation of trenches though archaeologically sensitive areas so that an archaeological watching brief can be maintained.

The archaeological watching brief will be carried out in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the Local Planning Authority and must meet the standards laid down by the Institute of Archaeologists in their Standard and Guidance for an Archaeological Watching Brief.

A copy of the watching brief report shall be submitted to the Local Planning Authority for approval, to the Royal Commission on the ancient and Historical Monuments of Wales for inclusion on the National Monument Record, and to Clwyd Powys Archaeological Trust for inclusion in the Regional Historic Environment Record (HER) within two months of the fieldwork being completed.

Reason

To allow for recording of the structure of archaeological interest during the construction phase.

4.2 No brief for the watching brief was supplied by Brecon Beacons National Park, (BBNP, undated)

5. Nature of the archaeological resource

- 5.1 In the delegated decision report dating to September 2014 it was stated that the Brecon Forest Tramroad would be impacted on by the hydro scheme.
- 5.2 In order to write this WSI, the relevant data was acquired from the Clwyd Powys Historic Environment Record and historic mapping consulted.
- 5.3 The entire route of the pipeline was walked with Gemma Samuel of TGV Hydro and areas where there would be groundworks identified. Historic assets on the line of the pipeline or other groundworks were recorded as well as other historic assets close by.



- 5.4 This information was collated and can be seen in Figure 2, Appendix A and B. An assessment of the significance of the historic asset and the level of impact and appropriate mitigation was made.
- 5.5 Seven historic assets were recorded by Trysor, along the route of the scheme, most of minor importance. The significance of a previously unrecorded bridge, CNE 2016_001 is unknown, but it will not be directly affected by the development.
- 5.6 The Brecon Forest Tramroad network was established by John Christie, a wealthy man who had amassed a fortune in the indigo trade, after he acquired much of the crown lands known as the Great Forest of Brecon, when it was sold by the Crown during 1819-20 to raise funds following the Napoleonic wars.
- 5.7 Christie was intent exploiting the mineral wealth of his large estate, which included important outcrops of limestone, a source of the lime used as an agricultural fertiliser to improve the land, especially useful on the acidic soils of upland Wales.
- 5.8 The Brecon Forest Tramroad network was created during the first half of the 1820s, to enable the raw materials of the Great Forest estate to be moved for export out of the district. A limestone quarry at Pwll Byrfe was initially favoured, but rapidly abandoned in favour of the lower-lying Penwyllt Quarry. The tramroad network ran southwards to the Swansea Canal at Gurnos, from where minerals could be sent by barge to Swansea and onwards through its busy port. This also gave access to the coal reserves of the upper Swansea valley around Ystradgynlais. Northwards, the Tramroad system went as far as Sennybridge, where limekilns were to produce the valuable lime fertiliser required on several farms owned by Christie in the Usk valley at Sennybridge, as well as at Cnewr. This also allowed Christie to supply the market for lime further away from the valuable limestone outcropping in the upper Swansea valley.
- 5.9 Cnewr Farm, one of Christie's main farms in the Great Forest, was built in 1821. It stood immediately alongside the main tramroad to Sennybridge and was supplied with the lime required to improve the holding via the tramroad, but also became an important point on the network. Lime sheds, stables and housing were all constructed at Cnewr to be of use to the operation of the tramroad system.
- 5.10 The tramroad bed, CNE2016_007, is still visible immediately to the east of the farm buildings at Cnewr, surviving as a linear feature, with sections of cuttings and embankments. It is not thought that the tramroad connected directly to the building complex.
- 5.11 The tramroad bed, CNE2016_007, will be directly affected by the electricity cable trench and in mitigation a watching brief will be carried out when groundworks cut through this feature. It should be noted that this section of tramroad has already been truncated on its southeastern side, see photo CNE2016_109 in Appendix B.



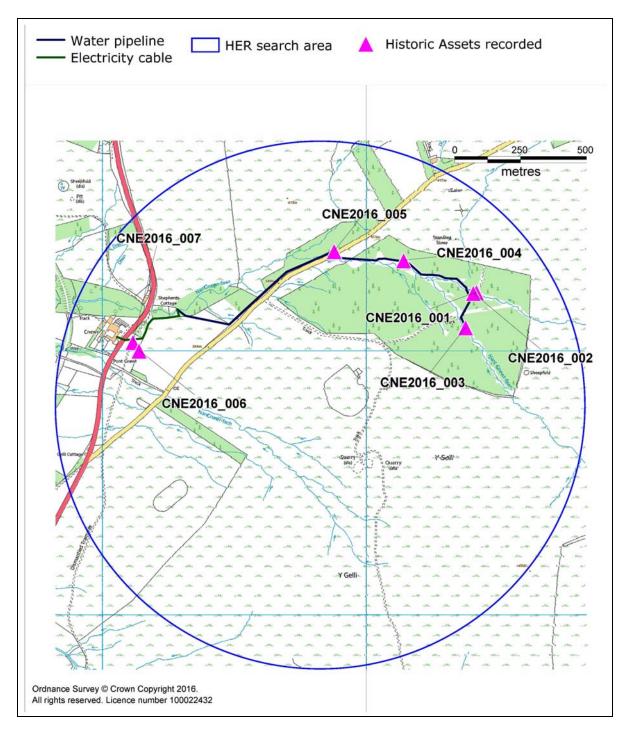


Figure 2: Historic assets recorded



6. Aims and Objectives of Proposed Mitigation

- 6.1 The objectives of the archaeological works are:
 - to monitor groundworks, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundworks;
 - at the conclusion of the project, to produce an integrated archive for the project work and a report setting out the results of the project and the archaeological conclusions that can be drawn from the recorded data.
- 6.2 The report will be provided to the NMR and regional HER, along with project database so that information can be added to the existing information about the archaeological resource.
- 6.3 The Industrial to Modern (1750 to present) theme, in the Research Framework for the Archaeology of Wales, cites transport links as an area of interest. The most recent document in 2011, from the first review of the framework, identified that active research was being undertaken in transport systems, including railways pre 1850. The research aim was identified as:

The significance, form and archaeological survival of transport corridors – turnpikes, government-sponsored roads, canals, railways – in terms of their engineering, the industries they served and the settlements they sustained; their context and significance in terms of similar sites elsewhere in the world Industrial and Modern, A Research Framework for the Archaeology of Wales Version 02, Final Paper February 2011

6.4 The investigation of the tramway will provide some information towards this research aim.

7. Scope of Mitigation

- 7.1 A watching brief will be undertaken on groundworks where the pipeline crosses the former tramway CNE2016_007 at approximately SN8912022050.
- 7.2 The Chartered Institute for Archaeologists' Standard and Guidance for Archaeological Watching Brief (CIfA, 014b) was used to write this Written Scheme of Investigation. They define a watching brief as:
- "....a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive."
- 7.3 The purpose of a watching brief is described as:

"a. to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established



with sufficient accuracy) in advance of development or other potentially disruptive works

b. to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard

A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The objective of a watching brief is to establish and make available information about the archaeological resource existing on a site.

- 7.4 This watching brief should establish whether any features can be identified as of possible archaeological significance within the groundworks of the proposed development.
- 7.5 If archaeological features are encountered further mitigation may be required.

8. Methodology

- 8.1 The watching brief will be carried out in accordance with Chartered Institute for Archaeologists' *Standard and Guidance for an Archaeological Watching Brief* (CIfA, 2014a)
- 8.2 A two-person team will undertake a watching brief and features of archaeological interest recorded. Excavation of any features will be limited to that necessary to establish their extent and character, unless their excavation is required to allow the development to proceed.



9. Recording

- 9.1 A plan of the groundworks, and representative sections if appropriate, will be drawn, at an appropriate scale, recording all features of archaeological interest. The plan will be based on the applicants' survey drawings of the development area. If archaeological features of contexts are encountered, plans will be drawn on permatrace to a scale of 1:10, 1:20 or 1:50, as appropriate.
- 9.2 A written record of all activity will be kept in a project specific notebook. If archaeological contexts are encountered they will be recorded following the *Central Excavation Unit Manual: Part 2: Recording*, 1986, using a consecutive numbering system.
- 9.3 Any artefacts will be dealt with in accordance with the guidance provided in the Chartered Institute for Archaeologists *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA, 2014b). Any artefacts will be retained, cleaned, recorded and stored.
- 9.4 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 Ministry of Justice license will be applied for under the Burial Act 1857.
- 9.5 Colour digital photographs will be taken, as appropriate, using a 16M pixel camera. A written record will be made on site of the photographs taken. Appropriate photographic scales will be used.

10. Contingency arrangements if archaeological features are discovered

10.1 In the event that archaeological remains are encountered, where appropriate investigation falls outside the scope of this specification, a meeting between Trysor, the applicant, Brecon Beacon National Park Heritage Officer Archaeology or their representative, and the Local Planning Authority case officer will be convened in order to agree a course of action. The applicant will be responsible for paying for any further work necessary such as curatorial monitoring, finds conservation, finds specialist, radio-carbon dating etc.

11. Health & Safety

11.1 Trysor will undertake a risk assessment in accordance with their health and safety policy. Managing safe working alongside machinery within confined spaces will be a priority.

12. Reporting

12.1 A report on the watching brief will be prepared according to the requirements of section 3.8 of the Chartered Institute for Archaeologists' *Standard and Guidance for an Archaeological Watching Brief* (CIfA, 2014a, p.14) following the completion of the work. Copies of the report will be provided to the client, the Regional Historic Environment Record and the National Monuments Record.

13. Dissemination

13.1 A summary of the work undertaken and its findings will be submitted to *Archaeology in Wales*, the annual review of archaeological work in Wales collated the Council for British Archaeology Wales (CBA Wales).



13.2 The project will be entered onto OASIS.

14. Archive

- 14.1 The archive will be deposited with the National Monuments Record, including a copy of the final report in accordance with the CIfA's *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (IfA, 2013c). This archive will include all written, drawn and photographic records relating directly to the investigations undertaken. Digital archives will follow the standard required by the RCAHMW (RCAHMW, 2015).
- 14.2 The significance of any artefacts retrieved will be assessed and this will determine where may be an appropriate place for deposition, subject to agreement by the legal owner, the landowner. Brecknock Museum in Brecon has limited storage space and does not take human remains (National Panel for Archaeological Archives in Wales, 2008). The National Monuments Record again has limited scope for storing artefacts but they are well equipped for storing paper and digital records.
- 14.3 If the artefacts are deposited separately to the rest of an archive, a copy of the report and archive will be deposited with the artefacts.

15. Resources to be used

15.1 Two members of staff will undertake the watching brief. They will be equipped with standard field equipment, including digital cameras, GPS and first aid kits. Trysor have access to the computer hardware and software required to deliver the completed final report and archive to a professional standard.

16. Qualification of personnel

- 16.1 Trysor is a Registered Organisation with the Chartered Institute for Archaeologists and both partners are Members of the Chartered Institute for Archaeologists, www.archaeologists.net
- 16.2 Jenny Hall (BSc Joint Hons., Geology and Archaeology, MCIfA) had 12 years excavation experience, which included undertaking watching briefs prior to becoming the Sites and Monuments Record Manager for a Welsh Archaeological Trust for 10 years. Since 2004 she has been an independent archaeologist undertaking a variety of work that includes upland survey, desktop assessments and watching briefs.
- 16.3 Paul Sambrook (BA Joint Hons., Archaeology and Welsh, MCIfA, PGCE) has extensive experience as a fieldworker in Wales. He was involved with Cadw's pan-Wales Deserted Rural Settlements Project for 7 years. He also undertook Tir Gofal field survey work and watching briefs. Since 2004 he has been an independent archaeologist undertaking a variety of work that includes upland survey, desktop assessments and watching briefs.
- 16.4 Dee Williams (BA Archaeology and Classical Studies) graduated from the University of Wales, Lampeter. After University she pursued a career in field archaeology. Her first supervisory post was with Wessex Archaeology (Manpower Service Commission 1984-5) as the Finds Officer on a large multi-period urban excavation in Dorchester. From 1986 to 1994 she was employed as the Finds Officer with the Dyfed Archaeological Trust. From



1994 to the present she has worked as an administrator in the Department of Archaeology at Lampeter but continues her research interests in finds with specialisms in ceramics and glass.

16.5 Martin Locock (BA, MCIfA) – Martin has undertaken many bone reports for Glamorgan Gwent Archaeological Trust and others. He has also undertaken studies of bricks and mortar.

16.6 Dr Ian Brooks (PhD, BA, MCIfA, FSA) - Flint assemblages of any size from a single artefact to many thousands of artefacts can be analysis. Recent projects have varied from a few artefacts recovered during the excavation of a late medieval house in North Wales to over 16,000 Mesolithic artefacts from Bath. In addition to standard typological studies Ian Brooks has developed specialist techniques to investigate the original source of the flint and the deliberate heat treatment of flint by the use of micropalaeontology.

16.7 Wendy Carruthers (BSc, MSc) has worked as a freelance archaeobotanist for over 30 years, mainly analysing plant macrofossils from sites in southern and central England and Wales. After graduating in Manchester she worked as a field botanist for a year, followed by a couple of years on archaeological excavations as a digger and planner. I then took the Masters course in Plant Taxonomy at Reading, and started working as a freelance archaeobotanist after I graduated. In the early 1990s she was the English Heritage Archaeobotanist at the Ancient Monuments Laboratory for four years. Over the years she has analysed charred, waterlogged, mineralised, silicified and desiccated plant remains. She is particularly interested in preservation by mineralisation.

17. Insurance & Professional indemnity

17.1 Trysor has Public Liability and Professional Indemnity Insurance.

18. Project identification

18.1 The project has been designated Trysor Project No. 2016/510. Site code is CNE2016.

19. Monitoring

19.1 Staff from Brecon Beacons National Park will be welcome to visit the site and monitor the work. They will be informed as to when work will start on site and contact details given.



20. Sources

Ordnance Survey, 1813, Original Surveyors Drawings

Ordnance Survey, 1832, 1 inch to a mile survey

Ordnance Survey, 1887, 1:2500 Ordnance Survey, 1905, 1:10560

20.1 Non-published

Central Excavation Unit, 1986, Central Excavation Unit Manual: Part 2: Recording, 1986

National Panel for Archaeological Archives in Wales, 2008, National Standards for Wales for Collecting and Depositing Archaeological Archives

RCAHMW, 2015, RCAHMW guidelines for Digital Archives, Version 1

20.2 Published

CIfA, 2014a, Standard and Guidance for an archaeological watching brief

CIfA, 2014b, Standard and Guidance for the collection, documentation, conservation and research of archaeological materials.

CIfA, 2014c, Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives

20.3 Web based materials

Historic Landscape Characterisation,

 $\underline{\text{http://www.ggat.org.uk/cadw/historic_landscape/main/english/historical.htm}}, accessed \\ \underline{06/05/2016}$

Historic Wales, http://historicwales.gov.uk/, accessed 06/05/2016

20.4 Data Sources

Cadw, Historic Landscape all-Wales dataset, supplied 31/07/2014

Cadw, Historic Landscape Character Areas, supplied 08/08/2014

Cadw, Listed Building all-Wales dataset, supplied April 2016

Cadw, Parks and Gardens all-Wales dataset, supplied August 2015

Cadw, Scheduled Ancient Monument all-Wales dataset, supplied April 2016

Jenny Hall & Paul Sambrook

Trysor, May 2016, revised June 2016



Appendix A Site Gazetteer



ID CNE2016_001 NANT CNEWR FAWR

number: BRIDGE

Clwyd Powys HER PRN: NMR NPRN: 0

NGR: SN9041722223

Period:Post MedievalBroadclass:TransportForm:Other StructureCondition:Damaged

Site Status:

SAM number: LB number: grade:

Trysor Stone-built bridge over the Nant Cnewr Fawr. The central section has now collapsed but appears to have been flat and of

timbers and metal. The stone abutments are well-built with concave sides. It stands over a metre high in the centre and is at least 2 metres wide. It is very overgrown with vegetation. The use of the bridge is unclear but its form seems likely to be a tramroad bridge rather than just a bridge on a road/track. It is

not shown on historic Ordnance Survey maps nor is track

leading to it.

Rarity: Not common

Documentation:

Group Value:

Evidential Value: Extant feature

Historical Value: None

Aesthetic Value: None

Communal Value: None

Significance: Unknown

Any Direct No Impact?: None

Any Indirect Yes Impact?: Yes

The water pipe carrying diverted water whilst the intake was built passes thought the bridge, Inadvertent damage should be avoided.

Comment on Impact:

A pipe used to divert the stream whilst the first intake (ID number 2) was constructed rune down the stream bed and between the bridge $\,$

abutments.



ID CNE2016_002 NANT CNEWR FAWR **number:** HYDRO INTAKE

Clwyd Powys HER PRN: NMR NPRN: 0

NGR: SN9040522220

Period:21st centuryBroadclass:IndustrialForm:Other StructureCondition:Intact

Site Status:

SAM number: LB number: 0 grade:

Trysor The recently constructed hydro intake, consisting of a concrete

Description: dam built across the Nant Cnewr Fawr.

Rarity: Not rare

Documentation:

Group Value: Part of hydro scheme

Evidential Value: Extant Structure

Historical Value: NoneAesthetic Value: None

Communal Value: None

Significance: Minor Importance

Any Direct No Impact?: No

Any Indirect No Impact?: No

Comment on

Impact:

Part of the micro-hydro scheme, built in 2016.



ID CNE2016_003 NANT CNEWR FAWR

number: HYDRO

Clwyd Powys HER PRN: NMR NPRN: 0

NGR: SN9037622090

Period:21st centuryBroadclass:IndustrialForm:Other StructureCondition:Intact

Site Status:

SAM number: LB number: 0 grade:

Trysor The recently constructed hydro intake, consisting of a concrete

Description: dam built across the Nant Cnewr Fawr.

Rarity: Not rare

Documentation:

Group Value: Part of hydro scheme

Evidential Value: Extant Structure

Historical Value: None

Aesthetic Value: None

Communal Value: None

Significance: Minor Importance

Any Direct No Impact?: No

Any Indirect No Impact?: No

Comment on

Impact:

Part of the micro-hydro scheme, built in 2016.



ID CNE2016_004 NANT CNEWR FAWR

number: **LEAT**

Clwyd Powys HER PRN: NMR NPRN: 0

NGR: SN9014122344

Period: Post Medieval? Broadclass: Water Supply and Drainage

Form: Earthwork Condition: Damaged

Site Status:

SAM number: LB number: 0 grade:

Trysor This leat runs along the northern side of the Nant Cnewr Fawr, Description:

and the hydro scheme pipe will follow part of its course. It sis

about 1 metre wide and has a bank on the side closest to the stream. It could be traced for about 85 metres, from

SN9018522317 to SN9010922348, but where it returns to the

stream was not clear. Its purpose is unknown, but another small leat was recorded connecting to section of the Nant Cnewr

Fach c, 830 metres to the southwest.

Rarity: Common

Documentation:

Group Value: None

Evidential Value: Earthwork

Historical Value: None

Aesthetic Value: None

Communal Value: None

Significance: Minor Importance

Any Direct Impact?:

Yes

No

The pipeline is gong to follow the course of the leat and will be just

Pegged on the surface throughout this section, but care should be taken

to avoid damaging the earthworks of the leat

Any Indirect

Impact?: None

Comment on

Impact:

The pipeline will utilise the course of the leat but will be above ground.



ID CNE2016_005 CNEWR

number:BOUNDARY WALL

Clwyd Powys HER PRN: NMR NPRN: 0

NGR: SN8987822379

Period: Post Medieval Broadclass: Monument (By Form)

Form: Other Structure Condition: Damaged

Site Status:

SAM number: LB number: 0 grade:

Trysor A drystone boundary wall, running along the northwest side of

Description: the road. It is in various states of repair with a fence beyond it

to the northwest.

Rarity: Common

Documentation:

Group Value: Part of field system

Evidential Value: Extant wall

Historical Value: None

Aesthetic Value: None

Communal Value: None

Significance: Minor Importance

Any Direct Yes

Impact?: Very Low

The pipeline will have to pass through this wall

Any Indirect No

Impact?: None

Comment on

Impact:

The pipeline will have to pass through the wall.



IDCNE2016_006 **CNEWR**

number: FIELD BOUNDARY

Clwyd Powys HER PRN: NMR NPRN: 0

NGR: SN8913922002

Period: Post Medieval Broadclass: Monument (By Form) Form: Earthwork Condition: Near destroyed

Site Status:

LB number: SAM number: 0 grade:

Trysor A denuded, former field boundary, now a stone spread up to 2 Description:

metres wide and 0.30 metres high. The boundary is shown on

historic Ordnance Survey maps.

Rarity: Common

Documentation:

Group Value: Part of field system

Evidential Value: Remains of boundary, boundary line shown on Ordnance Survey maps.

Historical Value: None

Aesthetic Value: None

Communal Value: None

Significance: Minor Importance

Yes

No

Any Direct

Impact?: Very Low

The electricity cable may clip the northern end of the boundary

Any Indirect

Impact?: None

Comment on

Impact:

The electricity cable may clip the northern end of the boundary



ID CNE2016_007 CNEWR number: TRAMWAY

Clwyd Powys HER PRN: NMR NPRN: 0

NGR: SN8911622034

Period:Post MedievalBroadclass:TransportForm:EarthworkCondition:Various

Site Status:

SAM number: LB number: 0 grade:

Trysor Description: The Brecon Forest Tramroad network was established by John Christie, a wealthy man who had amassed a fortune in the

indigo trade, after he acquired much of the crown lands known as the Great Forest of Brecon, when it was sold by the Crown to raise funds for the Napoleonic wars during 1819-20.

Christie was intent exploiting the mineral wealth of his large estate, which included important outcrops of limestone, a source of the lime used as an agricultural fertiliser to improve the land, especially useful on the acidic soils of upland Wales.

The Brecon Forest Tramroad network was created during the first half of the 1820s, to enable the raw materials of the Great Forest estate to be moved for export out of the district. A limestone quarry at Pwll Byrfe was initially favoured, but rapidly abandoned in favour of the lower-lying Penwyllt Quarry. The tramroad network ran southwards to the Swansea Canal at Gurnos, from where minerals could be sent by barge to Swansea and onwards through its busy port. This also gave access to the coal reserves of the upper Swansea valley around Ystradgynlais. Northwards, the Tramroad system went as far as Sennybridge, where limekilns were to produce the valuable lime fertiliser required on several farms owned by Christie in the Usk valley at Sennybridge, as well as at Cnewr. This also allowed Christie to supply the market for lime further away from the valuable limestone outcropping in the upper Swansea valley.

Cnewr Farm, one of Christie's main farms in the Great Forest, was built in 1821. It stood immediately alongside the main tramroad to Sennybridge and was supplied with the lime required to improve the holding via the tramroad, but also became an important point on the network. Lime sheds, stables and housing were all constructed at Cnewr to be of use to the operation of the tramroad system.

The tramroad bed is still visible immediately to the east of the



farm buildings at Cnewr, surviving as a linear feature, with sections of cuttings and embankments. It is not thought that the tramroad connected directly to the building complex.

Rarity: Not rare

Documentation: Group Value:

Evidential Value: Extant earthwork

Historical Value: Part
Aesthetic Value: None
Communal Value: None

Significance: Regionally Important

Any Direct Yes Impact?: Low

The electricity cable will pass through the tramway at a point where it

has already been truncated on its southeast side.

Any Indirect No Impact?: None

Comment on Impact: he electricity cable will pass through the tramway at a point where it has already been truncated on its southeast side. A watching brief whilst

the groundworks are being excavated through the tramway should be sufficient to record the nature of the remaining part of the tramroad at

this point.



Appendix B: Site Photographs





Plate 1: CNE2016_101, The remains of the stone built bridge with the central section collapsed and the abutments overgrown, looking south southwest.



Plate 2: CNE2016_002, The remains of the stone bridge, CNE2016_001, in the background with the hydro intake, CNE2016_002 in the foreground, looking southeast.





Plate 3: CNE2016_103, Hydro intake, looking northwest.



Plate 4: CNE2016_104, Hydro intake, looking south southeast.





Plate 5: CNE2016_105, Hydro intake, looking northwest.



Plate 6: CNE2016_106, Leat, looking west northwest.





Plate 7: CNE2016_107, Boundary wall, looking north northwest.



Plate 8: CNE2016_108, Denuded former field boundary, looking north northeast.





Plate 9: CNE2016_109, Tramroad, looking northeast, showing the truncated southeastern side of the tramroad. **NB – During the watching brief it was**

recorded that this a redeposited bank and not the tramway.



Plate 10: CNE2016_110, Tramroad, looking southwest, showing the full width of the tramroad.



APPENDIX B WATCHING BRIEF PHOTOGRAPHS



Plate 5: CNE2016_111. A general view of the excavation through the line of the tramway, looking south southwest. The nature of the bank can be seen in the foreground with the excavated ditch to its east (left of the photograph). The bank is rough and uneven which contrasts with the extant tramway embankment further to the south southwest which is rounded, even, with a flat top.





Plate 6: CNE2016_112. Looking east, at the narrow cable trench across the bank. It had been thought that the tramway embankment had been clipped redigging the ditch to the east but in fact the bank here seems to a modern product of digging the ditch and the tramway embankment had already been lost or was never an embankment here.