Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire 18/16877/FUL (BBNPA) Historic Environment Desk-based Assessment



Report by: Trysor

For: TGVHydro Ltd

February 2019



Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire 18/16877/FUL (BBNPA) Historic Environment Desk-based Assessment

By

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Trysor Project No. 2019/656 DAT HER Event Record PRN: 114814

For: TGVHydro Ltd

February 2019

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Cover photograph: The Nant Ffynnon Wen at the boundary between the open mountain land and the enclosed land of Pant y Turnor, looking west. The pipe to the turbine would run on the east side of the stream.

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RHIF YR ADRODDIAD - REPORT NUMBER: Trysor 2019/656 DAT HER EVENT RECORD PRN – 114814

DYDDIAD 11^{eg} Mis Chwefror 2019 **DATE** 11th February 2019

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.

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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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Event Record PRN – DAT HER

PRN	DAT 114814				
Name	Micro Hydro Scheme, Pant y Turnor, Llanddeusant				
	Carmarthenshire, 18/16877/FUL (BBNPA)				
	Historic Environment Desk-based Assessment				
Туре	Desk based Assessment				
NGR	SN7632422266				
Easting	276324				
Northing	222266				
Summary	In January 2019 Trysor undertook a desk-based				
(English)	assessment for a proposed Micro-Hydro Scheme at Pant y				
	Turnor, Llanddeusant, Carmarthenshire. The assessment				
	included a field survey of the proposed development area.				
	© Trysor 2019				
Summary	Yn ystod Mis Ionawr 2019 roedd Trysor wedi cwblhau				
(Cymraeg)	asesiad pen-fwrdd mewn cysylltiad â chais cynllunio ar				
	gyfer cynllun trydan-dŵr ym Mhant y Turnor,				
	Llanddeusant, Sir Gaerfyrddin. Roedd yr asesiad wedi				
	cynnwys arolwg maes o ardal y cynllun arfaethedig. ©				
	Trysor 2019				
Description	In January 2019 Trysor undertook a desk-based				
	assessment for a proposed Micro-Hydro Scheme at Pant y				
	Turnor, Llanddeusant, Carmarthenshire. The assessment				
	included a field survey of the proposed development area.				
	© Trysor 2019				
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,				
Sources	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)				
	Historic Environment Desk-based Assessment				
Copyright					
Copyright	© Trysor 2019				

Site Record PRNs – DAT HER

PRN	DAT 114815				
Name	NANT FFYNNON WEN				
Туре	SHEEP FOLD				
NGR	SN7625022167				
Easting	276250				
Northing	222167				
Summary	The site of a sheep fold shown on the 1877 1:2500				
(English)	scale Ordnance Survey map but destroyed by a				
	modern trackway. © Trysor 2019				
Summary	Safle lloc defaid sy'n ymddangos ar fap 1:2500 yr				
(Cymraeg)	Arolwg Ordnans ym 1877 ond sydd wedi cael ei				
	ddinistrio gan heol a gafodd ei adeiladu yma yn y				
	cyfnod modern. © Trysor 2019				
Description	A sheep fold is shown here on the 1877 1:2500 scale				
	Ordnance Survey map. The fold appears to have				
	been lost when a modern trackway was constructed				
	to the site in the later 20th century. No evidence of				
	the fold was noted during fieldwork in 2019. It may				
	have been associated with a sheep wash in the				
	stream but not evidence of this has been noted. ©				
	Trysor 2019				
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,				
	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)				
	Historic Environment Desk-based Assessment				
Copyright	© Trysor 2019				

1					
PRN	DAT 114816				
Name	PANT Y TURNOR				
Туре	BARN				
NGR	SN7599122520				
Easting	275991				
Northing	222520				
Summary	A former barn on the farmyard at Pant y Turnor				
(English)	which has been converted for residential purposes. ©				
	Trysor 2019				
Summary	Hen ysgubor ar glos fferm Pant y Turnor sydd wedi				
(Cymraeg)	cael ei throi yn breswylfa. © Trysor 2019				
Description	This former barn is part of the building complex set				
	around the farmyard at Pant y Turnor. This building				
	stands to the southwestern side of the farmhouse. In				
	modern times it has been converted for residential				
	purposes. © Trysor 2019				
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,				
	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)				
	Historic Environment Desk-based Assessment				
Copyright	© Trysor 2019				

PRN	DAT 114817					
Name	NANT FFYNNON WEN					
Туре	WALL					
NGR	SN7597922180					
Easting	275979					
Northing	222180					
Summary	A ruinous drystone wall which is shown on the 1840					
(English)	parish tithe map. © Trysor 2019					
Summary	Wal gerrig sych dadfeiledig, sy'n ymddangos ar fap					
(Cymraeg)	degwm y plwyf, 1840. © Trysor 2019					
Description	This drystone wall appears to be shown on the 1840					
	Llanddeusant parish tithe map and the 1887 1:2500					
	scale Ordnance Survey map. It is not in good					
	condition but has been supplanted by a post and wire					
	fenceline, just to its northern side, and is therefore					
	still a feature along the boundary between the parish					
	5 7 1					
	commons and enclosed farmland. The wall is less					
	than 1 metre high and it is often a revetment at the					
	bottom of slope rather than a free standing wall.					
	Sections of it have fallen. © Trysor 2019					
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,					
	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)					
	Historic Environment Desk-based Assessment					
Copyright	©Trysor 2019					

[
PRN	DAT 114818					
Name	NANT FFYNNON WEN					
Туре	SHEEP FOLD					
NGR	SN7639022150					
Easting	276390					
Northing	222150					
Summary	A large drystone sheepfold complex on the northern					
(English)	edge of the Llanddeusant parish upland commons. ©					
	Trysor 2019					
Summary	Lloc defaid mawr, wedi'i adeiladau allan o gerrig					
(Cymraeg)	sych, ar gyrion tir comin mynyddig plwyf					
	Llanddeusant. © Trysor 2019					
Description	A large, multi-celled sheepfold complex on the					
	northern edge of the Llanddeusant parish commons.					
	This sheepfold was in place by the late 19th century,					
	as evidenced by historic mapping, but its origins are					
	unclear. It has not been in use in modern times and					
	is now in a state of decay. At the time of the 1877					
	1:2500 Ordnance Survey map, a total of 17 cells of					
	varying size can be identified within the fold. 16 of					
	these are arranged around a large, square, central					
	cell. Entry appears to have been possible through					
	sheep crawls. © Trysor 2019					
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,					
	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)					
	Historic Environment Desk-based Assessment					
Copyright	© Trysor 2019					

DDN					
PRN	DAT 114819				
Name	NANT FFYNNON WEN				
Туре	PLATFORM				
NGR	SN7645722111				
Easting	276457				
Northing	222111				
Summary	A medieval or later earthwork platform on the open				
(English)	mountain pastures of the Mynydd Du. There appear				
	to be traces of a stone foundation on the platform. $\ensuremath{\mathbb{C}}$				
6	Trysor 2019				
Summary	Llwyfan adeilad, sy'n dyddio i'r canoloesoedd neu'n				
(Cymraeg)	ddiweddarach, ar borfeydd mynyddig, agored y				
	Mynydd Du. Gwelir olion seiliau cerrig sych adeilad				
	ar y llwyfan. © Trysor 2019				
Description	A rectilinear earthwork platform, on a west-northwest to east-southeast alignment on the open mountain pastures of the Mynydd Du common. Its measured 8 metres in length overall by 4 metres wide. The leveled area measures 6 metres long with a slight apron at the west-northwest end and a slight fan at the west-southeast end. The north-northeast side slightly cut into the slope. There is stone visible across the area of the platform, including a possible wall base along the south-southwest side, indicating that a hut with a stone foundation may once have stood on the platform. © Trysor 2019				
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA) Historic Environment Desk-based Assessment				
Copyright	© Trysor 2019				

PRN	DAT 114820					
Name	NANT FFYNNON WEN					
Туре	BOUNDARY BANK					
NGR	SN7661722107					
Easting	276617					
Northing	222107					
Summary	A denuded earthwork bank, part of a wider intake					
(English)	(NPRN 84325) on the fringe of the Mynydd Du					
	commons in the uplands of Llanddeusant parish,					
	probably of post-medieval date. © Trysor 2019					
Summary	Hen glawdd pridd sydd yn rhedeg ar draws rhostir					
(Cymraeg)	agored y Mynydd Du yma ac yn ffurfio rhan o sustem					
	o gaeau sy'n cynrychioli ymgais i gau i mewn rhan o'r					
	mynydd yn y gorffennol. Mae'r cloddiau hyn yn debyg					
	o ddyddio i'r cyfnod Ôl-ganoloesol. © Trysor 2019					
Description	A denuded earthwork bank, part of a wider intake					
	(NPRN 84325) on the fringe of the Mynydd Du					
	commons in the uplands of Llanddeusant parish,					
	probably of post-medieval date. It runs west-					
	southwest to east-northeast up the hillslope for some					
	410 metres from the Nant Ffynnonwen stream to one					
	of its tributary rill. It appears to continue for some					
	distance beyond this point along the northern side of					
	,					
	the tributary rill. © Trysor 2019					
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,					
	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)					
Convright	Historic Environment Desk-based Assessment					
Copyright	© Trysor 2019					

PRN	DAT 114821				
Name	NANT FFYNNON WEN				
Туре	BOUNDARY BANK				
NGR	SN7656922045				
Easting	276569				
Northing	222045				
Summary	A denuded earthwork bank, part of a wider intake				
(English)	(NPRN 84325) on the fringe of the Mynydd Du				
	commons in the uplands of Llanddeusant parish,				
	probably of post-medieval date. © Trysor 2019				
Summary					
(Cymraeg)	Hen glawdd pridd sydd yn rhedeg ar draws rhostir				
(Cynnacg)	agored y Mynydd Du yma ac yn ffurfio rhan o sustem				
	o gaeau sy'n cynrychioli ymgais i gau i mewn rhan o'r				
	mynydd yn y gorffennol. Mae'r cloddiau hyn yn debyg				
Description	o ddyddio i'r cyfnod Ôl-ganoloesol. © Trysor 2019				
Description	A denuded earthwork bank, part of a wider intake				
	(NPRN 84325) on the fringe of the Mynydd Du				
	commons in the uplands of Llanddeusant parish,				
	probably of post-medieval date. It runs north-				
	northeast to south-southwest for some 145 metres				
	and crosses a mountain rill at its southern end,				
	before terminating at a second rill. At its northern				
	end it joins another boundary bank, which runs west-				
	southwest to east-northeast up the hillslope. ${\mathbb C}$ Trysor				
	2019				
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,				
	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)				
	Historic Environment Desk-based Assessment				
Copyright	© Trysor 2019				

PRN	DAT 114822			
	-			
Name	NANT FFYNNON WEN			
Туре	MOUND			
NGR	SN7636921998			
Easting	276369			
Northing	221998			
Summary (English)	A small, earthwork mound measuring 2.25 metres in diameter and about 0.3 metres high. Its purpose is not known but it may be a small burial cairn of Bronze Age date. © Trysor 2019			
Summary	Twmpath pridd bychan sy'n mesur tua 2.25 metr			
(Cymraeg)	mewn diamedr a thua 0.3 medr o uchder. Nid yw ei			
	bwrpas yn hysbys ond gall fod yn garnedd claddu fychan sy'n dyddio i Oes yr Efydd. ©Trysor 2019			
Description	A small, earthwork mound measuring 2.25 metres in diameter and about 0.3 metres high. It is found on the open common. Its purpose is not known but it appears to be an earth mound, cut along its southwest side by a sheep track. It could be a Bronze Age funerary cairn, as mounds of similar size and context have been found to contain cremation burials. © Trysor 2019			
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)			
	Historic Environment Desk-based Assessment			
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PRN	DAT 114823			
Name	NANT FFYNNON WEN			
Туре	SHEEP FOLD			
NGR	SN7605522092			
Easting	276055			
Northing	222092			
Summary	A large, modern sheepfold, of timber post and sheep-			
(English)	wire construction. © Trysor 2019			
Summary	Lloc defaid mawr, modern, wedi'i adeiladu allan o			
(Cymraeg)	byst pren a ffens defaid. ©Trysor 2019			
Description This is a large, modern sheepfold, of timber pe				
	sheep-wire construction. It appears to date to the			
	late 20th or early 21st century and is first shown on			
	the 2005 Google Earth satellite imagery. © Trysor			
	2019			
Sources	Trysor, 2019, Micro Hydro Scheme, Pant y Turnor,			
	Llanddeusant Carmarthenshire, 18/16877/FUL (BBNPA)			
	Historic Environment Desk-based Assessment			
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1. Summary

- 1.1 This historic environment assessment has been undertaken by Trysor to examine likely impacts on the historic environment from a micro-hydro scheme on the Nant Ffynnon Wen, centred on SN7632422266, to the north of Pant y Turnor, Llanddeusant, Carmarthenshire, SA19 9TN.
- 1.2 A walkover survey was undertaken by Trysor to examine the location of the development. Information was also gathered on the indirect, visual impacts on historic assets within the wider landscape.
- 1.3 The walk-over survey led to the recording of nine historic assets previously not included in the regional HER, amongst which are two new archaeological features; a platform and a mound.
- 1.4 The assessment studied the direct and indirect impacts on all recorded historic assets within an area measuring 500 metres in radius, focused on SN7632422266, a central point on the consented development. The Dyfed Historic Environment Record and data from RCAHMW and Cadw was consulted. Historical mapping was also consulted as well as aerial photographs and LiDAR.
- 1.5 There is one Scheduled Monument within a 500 metre radius of the development.
- 1.6 There are no Listed Buildings within a 500 metre radius of the development.
- 1.7 There are no Registered Parks and Gardens within the 500 metre radius of the development.
- 1.8 Archaeological mitigations have been suggested. Some historic assets would experience some disturbance from pipe laying activity;
- 1.8.1 The water pipe from the turbine house to the stream would pass through a collapsed section of Wall, ID number 13. The reinstatement of this short section of collapsed walling would help to preserve the integrity of the boundary after the laying of the pipe and prevent erosion along the base of slope at the common boundary.
- 1.8.2 The pipe will also be laid across the line of two earthwork boundary banks, ID numbers 16 & 17, which are part of an undated, extensive enclosure field system. A watching brief on the pipeline when cut through the bank might be considered an appropriate response.
- 1.8.3 Five historic assets may be exposed to indirect, physical impacts from construction activity, particularly erosion by vehicular activity. These historic assets should be identified to contractors in advance of the development and marked to ensure they are visible and damage can be avoided.

2. Copyright

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3. Introduction

- 3.1 TGVHydro Ltd, c/o CRiC, Beaufort Street, Crickhowell, NP8 1BN, commissioned Trysor heritage consultants, on behalf of their client, to undertake a desk based assessment, including walkover survey for a proposed micro-hydro scheme at Pant y Turnor, Llanddeusant, Carmarthenshire SA19 9TN, see Figure 1.
- 3.2 A planning application has been submitted, planning application 18/16877/FUL (Brecon Beacons).
- 3.3 The Application was commented on by the Heritage Officer (Archaeology) at Brecon Beacons National Park Authority who recommended a walkover survey be carried out before the application is determined.

"Insufficient evidence and information has been provided to date in relation to the potential archaeological impact of the scheme.

It is recommended that an archaeological walkover survey is conducted to map, and assess any potential for impact to, known heritage sites and to prospect for any further unrecorded heritage assets. The walkover survey should be undertaken by a qualified archaeological contractor, and in accordance with an agreed archaeological written scheme of investigation approved in writing by the Local Planning Authority Archaeologist and which must meet the standards laid down by the Chartered Institute for Archaeologists.

Following approval, the report will inform further works necessary: determination of the application/ or whether further archaeological work is required."

Heritage Officer (Archaeology) Internal Memorandum dated 10/01/2019

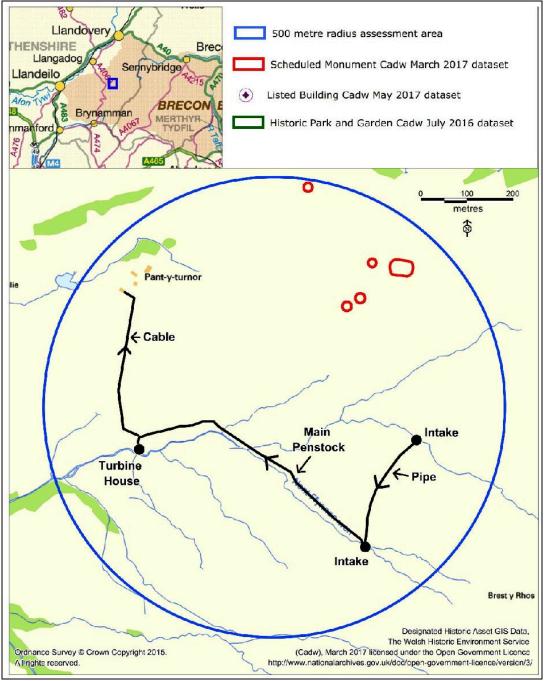


Figure 1: Location of the proposed development, showing the 500 metre radius assessment area.

4. The development

- 4.1 It is proposed that a high head micro hydro scheme, centred on SN7632422266, is installed at Pant y Turnor on the north side of the Mynydd Du, Carmarthenshire.
- 4.2 The scheme will consist of two intake weirs on two tributaries of the Nant Ffynnonwen. The northern weir at approximately SN7663122199 will feed the southern weir at approximately SN7651221969 via a feeding pipe. From the southern weir, water will be piped to the turbine house at SN7601922195. The water will be returned to the stream at SN 7600922177 via a short outflow pipe, and electricity exported by cable back to a building at approximately SN7599622520 at Pant y Turnor, see Figure 1.

5. Methodology

- 5.1 The desk-based assessment considered known historic assets within a 500 metre radius circle centred on SN7632422266, the centre of the proposed development (see Figure 1). This has helped develop an understanding of the archaeology and landscape of the surrounding area as well as assess any direct or indirect impacts. Historic assets have been given an ID number for the purposes of this report; other reference numbers are cross referenced in Appendix B.
- 5.2 Data from the regional Historic Environment Record held by Dyfed Archaeological Trust was acquired for the 500 metre radius assessment area.
- 5.3 Historic mapping was consulted. The maps used included the early 19th century Ordnance Survey Original Surveyors Drawings, as well as late 19th and 20th century 1:2500 scale Ordnance Survey mapping and the parish tithe map.
- 5.4 A walkover survey was made by Trysor to the development site, and the surrounding area, on 30th January, 2019. Visible archaeological features within the area that would be directly affected by the development were searched for and any other historic assets on which there may be a direct impact recorded. The wider landscape was also studied taking note of topography, vegetation and structures.

5.4.1 In places ground conditions made it impossible to follow the line of the proposed water pipe due to terrain and thick gorse vegetation.

- 5.5 Aerial photographs on Google Earth, dating to 2005, 2006, 2009, 2010, 2013, 2015 and 2016, were used to inform the assessment. LiDAR data of 1 metre and 2 metre resolution was available for the assessment area.
- 5.6 Modern mapping was used to assess current public access.

- 5.7 All information gathered during the desktop assessment and site visit was entered into a bespoke database created in Access 2003 to form an assessment dataset.
- 5.8 The final dataset is the source of the material output in this report, including the GIS mapping which illustrates the location of historic assets in the area, and the tables and appendices which provide detailed information on the historic assets within the study area.
- 5.9 Each of the records in the final assessment 500 metre radius dataset was assessed for Period, Rarity, Documentation, Group Value¹, as well as Evidential Value, Historical Value, Aesthetic Value, Communal Value². Once these had been considered the significance of each historic asset was determined and scored in accordance with the categories adopted by the Welsh Archaeological Trusts i.e. Nationally Important, Regionally Important, Locally Important, Minor and Features Needing Further Investigation (Unknown), see Figure 4. Full details of this exercise are given in Appendix B.
- 5.10 The Direct and Indirect impact on each historic asset was assessed taking into account both physical and non-physical impacts. Each impact was assessed within the scale Very Low, Low, Moderate, High and Very High, taken into account the significance of the historic asset and the nature of the impact.

6. The Development Site

- 6.1 The linear development area is found along an approximately 580 metre long stretch of the upper course of the Nant Ffynnonwen stream and one of its tributary streams on the northern fringe of the extensive Mynydd Du commons, near Llanddeusant. The streams flow southeast to northwest initially, through narrow and steep-sided rills, before uniting in the main Nant Ffynnonwen valley at the edge of the common, where the stream flows westwards through a larger but equally steepsided valley, which is difficult to access in parts due to ground vegetation, trees, and rocks. The turbine house will be located within this valley, to the north of the stream, and then a connection will be made from the turbine house to an outbuilding at Pant y Turnor farm, some 350 metres to the north.
- 6.2 This section of the common has never been permanently settled in the past and its character is that of upland pasture dedicated to grazing sheep. Permanent settlement appears to have been restricted to area of enclosed farmland to the north of the Nant Ffynnonwen stream, where scattered cottages and farmsteads are still occupied within the farmed landscape. This area has not seen significant industrial

¹ Period, Rarity, Documentation and Group Value are criteria defined in the Welsh Office Circular 60/96, 1996.

² Evidential Value, Historical Value, Aesthetic Value and Communal Value are criteria defined in Cadw's Conservation Principles publication, 2011.

- 6.3 The vegetation of the common here is typical of the wet, acidic moorland of the wider Mynydd Du area. Grassland pasture is present, but heather, gorse and some *Molina* (purple-moor grass) cover much of the landscape and obscure the surface in parts of this treeless area. Trees, shrubs and ground vegetation, including some bracken, are present along the generally steep slopes of the Nant Ffynnonwen valley outside the common boundary, making access difficult in places.
- 6.4 Immediately to the north of the Nant Ffynnonwen valley, lies the holding of Pant y Turnor. The fields of the enclosed landscape immediately to the north of the stream valley are now dominated by *Molina*. North of these fields the land is still maintained as clean, improved pasture.
- 6.5 Access to the development area is gained by a minor, single track, public road which runs from the public road at Beili farm down to a gate on the northern side of Nant Ffynnonwen. This gate gives access to the mountain pastures via a ford across the stream. Historically this trackway has been used to take flocks to the mountain and this tradition remains to the present day.

6.6 The area of the proposed development is underlain by rocks of the Devonian Period. The common is underlain by Sandstones of the Senni Formation, while the farmed landscape to the north is underlain by argillaceous rocks of the Maughans Formation. This bedrock was laid down approximately 393 to 419 million years ago in an environment dominated by the channels and floodplains of a large river system. The bedrock is masked by superficial deposits of glacial tills belonging to the Quaternary Period and mainly deposited at the end of the last Ice Age.

7. Archaeological and Historical Overview

- 7.1 The archaeological record for an area within a 500 metre radius of the proposed development includes evidence of prehistoric and medieval or later activity.
- 7.2 As is typical of the uplands of the region, there is ample evidence of Bronze Age activity around Nant Ffynnonwen. To the north of the stream there is the fine Tyle Pengam Standing stone (ID number 3) and up to five associated round barrows or cairns (ID numbers 1, 2, 4, 6 & 7) which form a cemetery group. These monuments are scheduled together as funerary complex (CM181).
- 7.2.1 Equally typical of the Bronze Age archaeology of the region is an absence of evidence for the settlement sites of the community which erected these funerary monuments. This monument group is found on a locally prominent ridge which is likely to have been best viewed from lower ground to the north and it may be surmised that a Bronze Age community settled and farmed the landscape in that direction at an unrecognised location.
- 7.2.2 A possible hut circle (ID number 5) of prehistoric date was noted by the Ordnance Survey close to Nant Ffynnonwen in the 1970s. This appears to have been a circular stone foundation set on a platform or hollow. Land improvements in the later 20th century removed all evidence of this feature however and it cannot therefore be verified as a prehistoric settlement site.
- 7.3 Also typical of the regional uplands is the preponderance of deserted settlement sites of medieval or later date on the mountain pastures. These are commonly recorded as platforms, longhouses and long huts in the upland environment and are usually interpreted as the seasonal settlement sites of pastoral farmers who lived on the uplands during the summer grazing season with their stock animals, in medieval or early post-medieval times.
- 7.3.1 Examples of such deserted settlement sites are well known across the Mynydd Du upland block, but the area around the proposed development has not been subject to an intensive field survey and prior to this study no examples have been specifically recorded in the assessment area. The field survey for this assessment has identified one earthwork platform (ID number 15), which bears some evidence of being the base for a rectilinear building with a stone foundation.
- 7.4 The RCAHMW's National Monuments Record (NMR) includes a record for an extensive area of enclosure or intake across the lower slopes of the common across Brest y Rhos. The earthwork banks of the enclosures extend into the area of the proposed development (ID numbers 16 & 17). The date of this attempt to enclose the common is not known, but

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the RCAHMW record and the evidence of recent Google Earth satellite imagery indicate that possible huts or folds, which remain unrecorded, exist within the enclosure area higher up the slopes and outside the assessment area. The enclosure is likely to be of earlier post-medieval date as the boundary banks seen on the common are not shown on any existing historic mapping, including the earliest Ordnance Survey map of 1811, which suggests that they predate those maps and had fallen out of use by the 19th century.

- 7.4.1 The survival of some 10 hectares of ridge and furrow cultivation (ID number 9) in a group of field parcel around the Tyle Pengam standing stone, to the northern side of the Nant Ffynnonwen valley, is more evidence of how land use has changed in recent centuries. Ridge and furrow is evidence of the land being ploughed by oxen or horses in the past. Although this example has been recorded as medieval, it could equally date to the 18th or 19th centuries as ploughing was still undertaken by both oxen and horses into the relatively recent past. The use of what is now marginal pastureland at over 300 metres above sea level to grow crops in the past, probably oats, is evidence of a very different farming system to that which has dominated the landscape here in modern times.
- 7.5 Most of the historic assets found within the assessment area are of post-medieval or modern date. These include the large multi-celled sheepfold on the common edge (ID number 14) and its modern successor 300 metres to the west-southwest.
- 7.6 A number of post-medieval historic assets no longer survive. A smaller sheep fold (ID number 11), shown on historic Ordnance Survey maps above the southern side of the Nant Ffynnonwen valley appears to have been destroyed by the construction of a modern trackway to the site. The 1811 Ordnance Survey map also appears to show a cottage (ID number 10) above the northern side of the Nant Ffynnonwen valley, see Figure 2. The 1840 tithe map for this precise area is damaged and the detail lost, but a small parcel of land alongside the possible cottage site is named as "Garden" on the accompanying tithe schedule, see Figure 3. A rectilinear structure is shown at this point on late 19th century Ordnance Survey maps, but no evidence now survives of such a structure.
- 7.7 The development is focused on the farmstead of Pant y Turnor. This post-medieval farmstead is typical of settlements close to the common edge. The 19th century farmhouse (now under renovation) and its modest outbuildings stood at the heart of a holding which had good access to the mountain pastures and was in an ideal location for pastoral farming. Pant y Turnor is no longer a traditional farmstead and its outbuildings have been converted for other uses in modern times, although the holding still amounts to over 60 acres of pastureland.

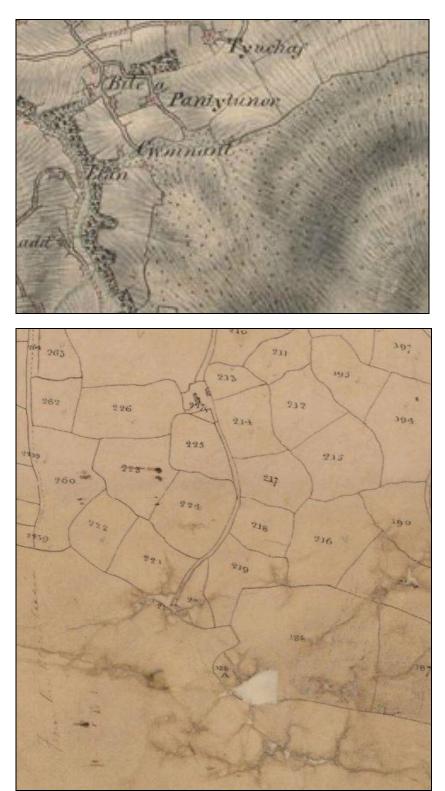


Figure 2; The 1811 Ordnance Survey Original Surveyors Drawing of the development area shown Pant y Turnor. There are no features shown on the adjacent common, but this should not be interpreted as meaning that features such as sheep folds were not present at the time. Note the location of the possible cottage ID number 10 above the "t" in Cwmnant.

Figure 3; The 1840 parish tithe map shows Pant y Turnor (parcel 227) and its field system. No details were surveyed on the adjacent common. Parcel 188A is recorded as "Garden" on the tithe schedule and may originally have been associated with a lost cottage. The rip in the map has occurred where the possible cottage would have stood. The tithe schedule does not name a cottage however.

8. Data Collation

- 8.1 The HER enquiry for the 500 metre radius assessment area yielded 15 records for historic assets.
- 8.2 After the walkover survey visit, the historic map search, and the rapid assessment of the readily available data the final dataset for the 500 metre radius assessment area contained 19 records for historic assets.
- 8.2.1 Five HER records were deleted. Four were for overall records for prehistoric funerary monuments not required for this assessment as the individual historic assets were assessed. One was for a post medieval settlement with insufficient information to locate the historic asset. Further details are given in section 14.
- 8.2.2 Nine new records were created in the project database by Trysor. These were for historic assets on or near the proposed development and included records for three sheepfolds (ID numbers 11, 14, & 19), two earthwork banks (ID number 16 & 17), an earthwork platform (ID number 15), earthwork mound (ID number 18) a former barn (ID number 12), and a wall (ID number13).

9. Assessment of Significance

- 9.1 The significance of each historic asset was determined and scored in accordance with the categories adopted by the Welsh Archaeological Trusts i.e. Nationally Important, Regionally Important, Locally Important, Minor and Features Needing Further Investigation (Unknown), see Figure 4. Full details of this exercise are given in Appendix B.
- 9.2 Within the 19 records there was one Scheduled Monument consisting of several individual historic assets. There were no Listed Buildings or Registered Historic Parks and Gardens.

ID Number	Historic Asset Name	Historic Asset Type	Significance	Historic Asset Status
7	NANT FFYNNON-WEN	Round	Nationally	Scheduled
/		Barrow	Important	Monument
6	NANT FFYNNON-WEN	Round	Nationally	Scheduled
0		Barrow	Important	Monument
4	TY-UCHAF	Round	Nationally	Scheduled
4		Barrow	Important	Monument
3	SYTHFAEN;	Standing	Nationally	Scheduled
2	TYLE PENGAM	Stone	Important	Monument
1	TWYN SWND;	Round	Nationally	Scheduled
T	TYLE PENGAM	Barrow	Important	Monument
2	TWYN SWND;	Round	Nationally	Scheduled
Z	TYLE PENGAM	Barrow	Important	Monument
14	NANT FFYNNON WEN	Sheep Fold	Locally	
14		-	Important	
15	NANT FFYNNON WEN	Platform	Locally	
15			Important	
16	NANT FFYNNON WEN	Boundary	Locally	
10		Bank	Important	
17	NANT FFYNNON WEN	Boundary	Locally	
17		Bank	Important	
8	TY UCHAF	Cairnfield	Locally	
0			Important	
0	TYLE PENGAM	Ridge and	Locally	
9		Furrow	Important	
10	NANT FFYNNON WEN	Sheep Fold	Minor	
19		-	Importance	
12	PANT Y TURNOR	Barn	Minor	
12			Importance	
13	NANT FFYNNON WEN	Wall	Minor	
15			Importance	
10	NANT FFYNNON WEN	Structure	Minor	
10			Importance	
11	NANT FFYNNON WEN	Sheep Fold	Minor	
			Importance	
F	NANT FFYNNON-WEN	Hut Circle	Minor	
5			Importance	
18	NANT FFYNNON WEN	Mound	Unknown	

Table 1: Assessed significance of historic assets

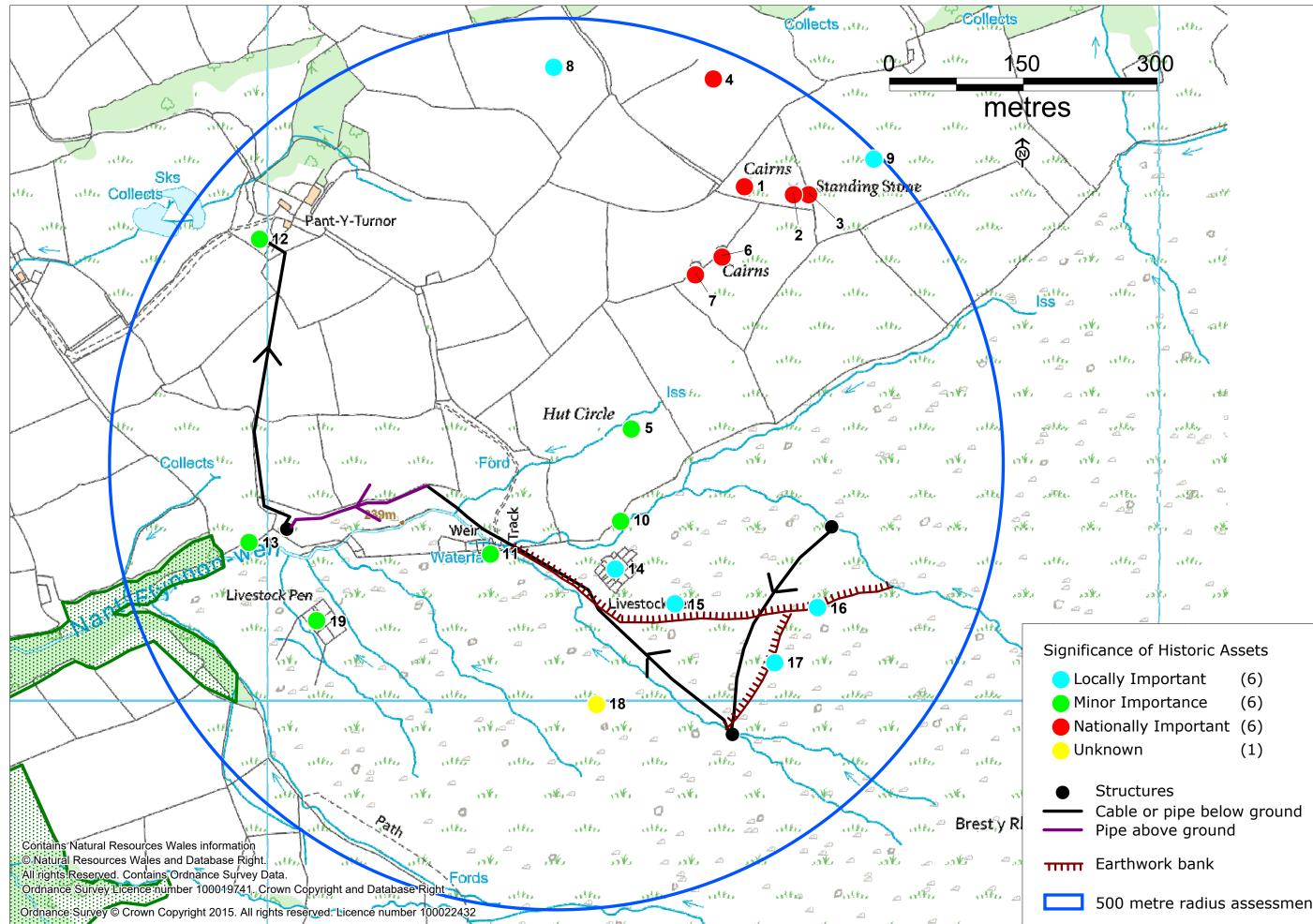


Figure 4: The 500 metre assessment area showing significance of historic assets, labelled with Project ID Number

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Locally Important	(6)
Minor Importance	(6)
••••••••••••••••••••••••••••••••••••••	(-)

- 500 metre radius assessment area

10. Assessment of Impact

10.1 The Direct and Indirect impact on each historic asset was assessed taking into account both physical and non-physical impacts. Each impact was assessed within the scale Very Low, Low, Moderate, High and Very High, taken into account the significance of the historic asset and the nature of the impact. A full table is found in Appendix B but a summary is tabulated in Table 2 below and illustrated in Figure 5.

ID Number	Historic Asset Name	Historic Asset Type	Level of Direct Impact	Level of Indirect Impact	Level of Impact on Setting	Level of Impact on Significance
13	NANT FFYNNON WEN	WALL	Moderate	Moderate	None	None
17	NANT FFYNNON WEN	BOUNDARY BANK	Low	Low	None	None
16	NANT FFYNNON WEN	BOUNDARY BANK	Low	Low	None	None
12	PANT Y TURNOR	BARN	Very Low	None	None	None
18	NANT FFYNNON WEN	MOUND	None	Moderate	None	None
15	NANT FFYNNON WEN	PLATFORM	None	Low	None	None
14	NANT FFYNNON WEN	SHEEP FOLD	None	Low	None	None
1	TWYN SWND; TYLE PENGAM	ROUND BARROW	None	Very Low	None	None
7	NANT FFYNNON- WEN	ROUND BARROW	None	Very Low	None	None
6	NANT FFYNNON- WEN	ROUND BARROW	None	Very Low	None	None
9	TYLE PENGAM	RIDGE AND FURROW	None	Very Low	None	None
3	SYTHFAEN; TYLE PENGAM	STANDING STONE	None	Very Low	None	None
2	TWYN SWND; TYLE PENGAM	ROUND BARROW	None	Very Low	None	None
11	NANT FFYNNON WEN	SHEEP FOLD	None	None	None	None
8	TY UCHAF	CAIRNFIELD	None	None	None	None

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				ea / issessimente		
4	TY-UCHAF	ROUND BARROW	None	None	None	None
5	NANT FFYNNON- WEN	HUT CIRCLE	None	None	None	None
10	NANT FFYNNON WEN	STRUCTURE	None	None	None	None
19	NANT FFYNNON WEN	SHEEP FOLD	None	None	None	None

Table 2: Impact on historic assets within the 500 metre assessment area

- 10.2 As Table 2 shows, no recorded historic assets within the 500 metre assessment area would be exposed to any significant impact from the development. Full details of the assessment of direct and indirect impact for each of the historic assets in Table 2 can be found in Appendix B.
- 10.2.1 One historic asset, Wall ID number 13, would experience a Moderate, direct impact, though only on a small section where a water pipe would pass through its line and some repair would be necessary. Two undated boundary banks (ID numbers 16 & 17) will have a Low, direct impact as a water pipe will pass through them. The former barn at Pant y Turnor will experience a Very Low, direct impact due to the electricity cables being connected to the building. None of these features are of more than Local importance and none have statutory protection.
- 10.2.2 There would be potential Low indirect impacts on a number of historic assets. Those of particular concern could potentially be damaged by construction vehicles moving through the landscape and inadvertently causing erosion damage to the features. This is an issue for several historic assets located on the common land, including the boundary banks (ID numbers 16 & 17), the mound (ID number 18), the platform (ID number 15) and sheepfold (ID number 15). Several other historic assets, notably the group of prehistoric funerary monuments and ridge and furrow on Tyle Pengam (ID number s 1, 2, 3, 6, 7 & 9) which would experience only a Very Low, indirect, visual impact.
- 10.3 There is one Scheduled Monument within 500m of the development area, which is the group of funerary monuments on Tyle Pengam (CM 181) which includes a standing stone and five funerary cairns scheduled as a group.
- 10.4 There are no Listed Buildings within the 500m assessment area
- 10.5 There are no Registered Parks and Gardens within the 500m assessment area.
- 10.6 There are no World Heritage sites within the 500m assessment area.

- 10.7 The development site lies within the Black Mountain and Mynydd Myddfai Historic Landscape. The part of the development site located on the common land falls within the Black Mountain Historic Character Area. The area located within the enclosed farmland lies within the Llanddeusant-Capel Gwynfe Historic Character Area.
- 10.8 The southern part of the proposed development would be within the The Black Mountain-Y Mynydd Ddu LANDMAP Historic Landscape Aspect Area (CRMRTHL40294), which is described as;

"Most significant archaeological element(s): 18th 19th century quarrying, bronze age summit cairns,?medieval and postmed deserted settlements"

- 10.8.1 The overall evaluation of this aspect area is Outstanding "It is a good example of an upland landscape with nationally important components." This landscape would not be affected by the development.
- 10.8.2 The northern part of the proposed development would be within the Llanddeusant-Capel-Gwynfe LANDMAP Historic Landscape Aspect Area (CRMRTHL40287), but it is not described.
- 10.8.3 The overall evaluation of this aspect area is High It is a typical example of a Carmarthenshire agricultural landscape." This landscape would not be affected by the development.
- 10.9 There are no Conservation Areas within the 500m study area.
- 10.10 The development area lies within the Brecon Beacons National Park.
- 10.11 During the field visit, two new historic assets were identified a medieval or later platform (ID number 15) and an undated mound (ID number 18). These were recorded, along with seven other historic assets which were not previously recorded in the regional HER; three sheepfolds (ID numbers 11, 14, & 19), two earthwork banks (ID number 16 & 17), a former barn (ID number 12) and a wall (ID number13).
- 10.12 No palaeoenvironmental potential was identified. There is no evidence that the development would damage sites if palaeoenvironmental importance.
- 10.13 The boundary banks within the development area are thought to be all earthwork banks or drystone walls of post-medieval date.
- 10.14 There are no field names of archaeological significance at the development site.

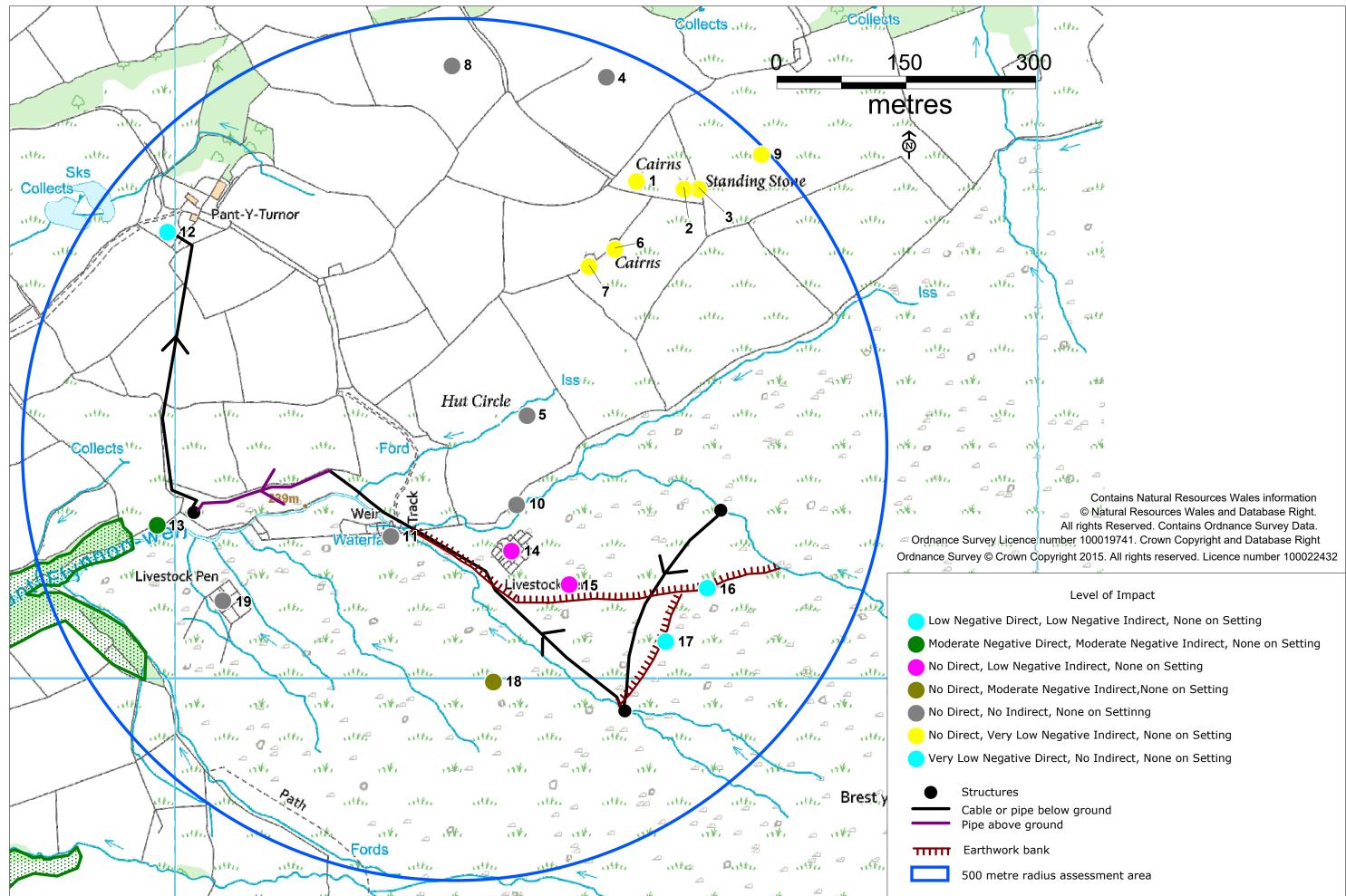


Figure 5: The 500 metre assessment area showing the impact on historic assets, labelled with Project ID Number

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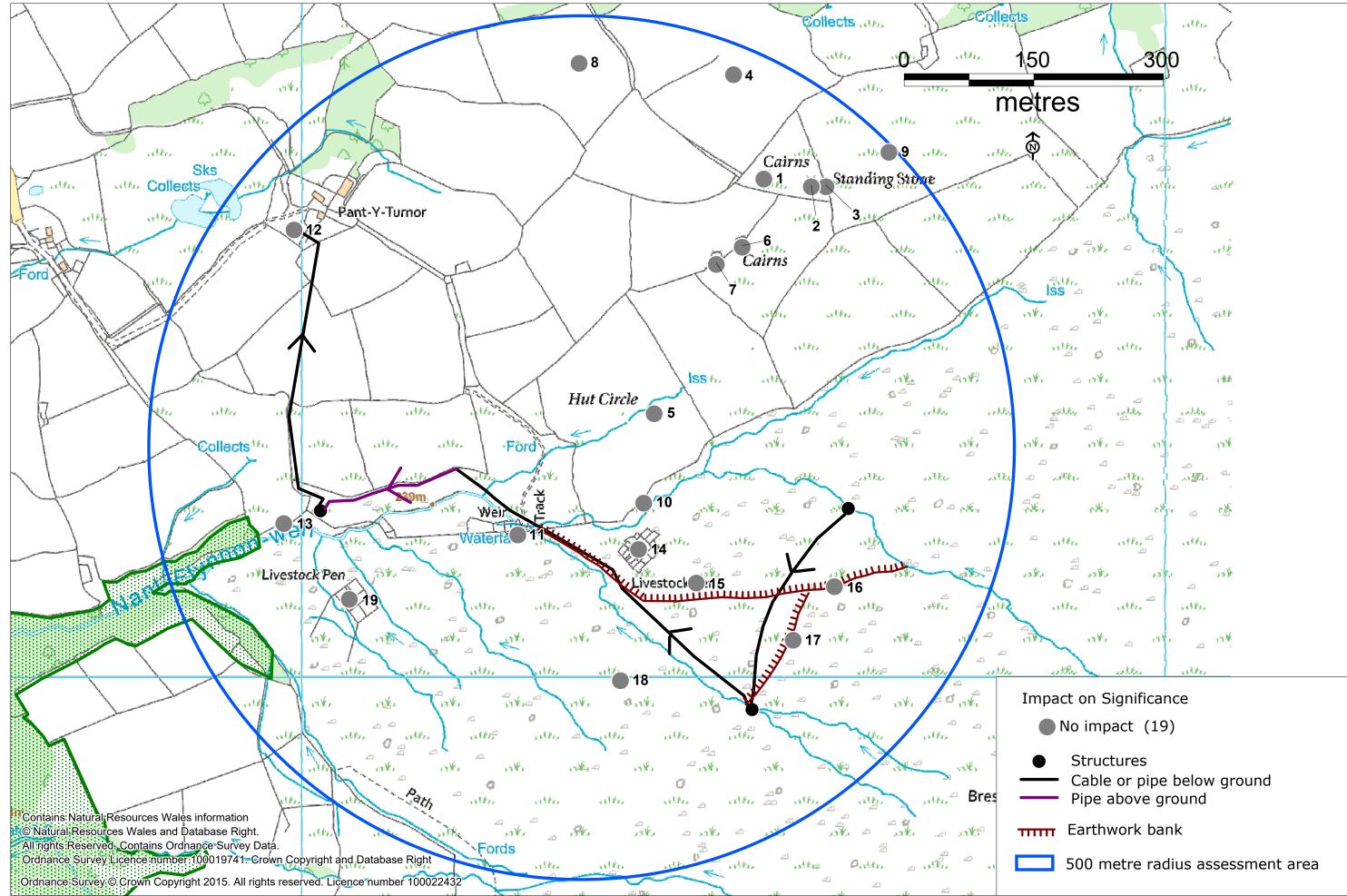


Figure 6: The 500 metre assessment area showing the impact on significance of historic assets, labelled with Project ID Number

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11. Conclusion

- 11.1 No historic assets would experience significant impact from the proposed development.
- 11.1.1 Four features of local or minor importance would experience a Moderate, Low or Very Low, direct, physical impact.
- 11.1.2 Twelve historic assets would be subject to indirect impacts, including five historic assets which could be affected by vehicular erosion.
- 11.2 No statutorily protected historic assets would be affected by the development.
- 11.3 No Conservation Areas or Registered Historic Parks or Gardens would be affected by the development. Although the development area is located within the Brecon Beacons National Park, its small scale means that it will not cause a significant visual or physical impact on the historic landscape.
- 11.5 In terms of archaeological mitigations, several historic assets would experience some disturbance from pipe laying activity;
- 11.5.1 The water pipe from the turbine house to the stream would pass through a collapsed section of Wall, ID number 13. The laying of the pipe through this section is not problematic, but the reinstatement of this short section of collapsed walling would help to preserve the integrity of the boundary afterwards and prevent erosion along the base of slope at the common boundary.
- 11.5.2 The pipe will also be laid across the line of two earthwork boundary banks, ID numbers 16 & 17. These banks are part of a extensive enclosure field system which remains undated. A watching brief on the pipeline when cut through the bank might be considered an appropriate archaeological response.
- 11.5.3 Five historic assets may be exposed to indirect, physical impacts from construction activity, particularly erosion by vehicular activity. These are the mound (ID number 18), the platform (ID number 15), boundary banks (ID numbers 16 & 17) and the sheep fold (ID number 14). These historic assets should be identified to contractors in advance of the development and marked to ensure they are visible and damage can be avoided.

12. Reporting

12.1 Copies of this report will be provided to the client, National Monument Record and the Regional Historic Environment Record.

13. References

13.1 Map sources

Ordnance Survey, 1811, 2" to 1 mile Original Surveyors drawing, Towy Valley Ordnance Survey, 1831, 1" to 1 Mile Sheet 75 Ordnance Survey, 1887, 1:2500, 1st edition

Parish tithe map, 1840, Llanddeusant

13.2 Web-based materials

CIFA, 2014, Standard and Guidance for historic environment desk-based assessment Historic England, 2015, The Setting of Historic assets Historic Environment Good Practice Advice in Planning Note 3

13.3 Published sources

Cadw, 2010, Conservation Principles for the Sustainable Management of the Historic Environment in Wales Historic England, 2008, *Conservation Principles, Policies and Guidance*

13.4 Unpublished sources

Trysor, 2019, Specification for an Historic Environment Desk-Based Assessment including Walkover Survey for a Micro Hydro Scheme at Pant y Turnor, Llanddeusant, Carmarthenshire, 18/16877/FUL

13.5 Data Sources

Dyfed Archaeological Trust, Historic Environment Record, data received 05/02/2019

Cadw, Listed Building all-Wales dataset, downloaded March 2017

Cadw, Parks and Gardens all-Wales dataset, downloaded August 2015 Cadw, Scheduled Ancient Monument all-Wales dataset, downloaded March 2017

Cadw, Registered Historic Landscapes dataset, supplied June 2014 NRW, LiDAR data, accessed online during January 2019

http://lle.gov.wales/Catalogue/Item/LidarCompositeDataset/?lang=en

14. Reliability & Limitations of Sources

- 14.1 In line with the requirements of the CIfA Standards & Guidance notes for Desk-based Assessments (CIfA, 2014, Point 3.3.6), the following observations on the usefulness and reliability of the sources used have been made.
- 14.2 The cartographic sources used include a range of Ordnance Survey maps produced during the 19th and 20th centuries, all of which provided sufficiently clear and accurate representations of the evolving landscape of the assessment area.
- 14.2.1 The earliest map source was the 1811 Ordnance Surveyors Original Surveyors Drawings, of which an adequate digital copy is available through the British Museum website.
- 14.2.2 The parish tithe map of 1840 is of use and records field names and ownership details for the enclosed farmland but does not give land use information. The map and schedule do not cover the parish commons.
- 14.3 The main source of data for the assessment was the Dyfed Archaeological Trust HER. The HER data supplied by the Dyfed HER was generally of reasonable quality although some records had poor locational detail, see Table 3 below.

DAT HER PRN	Historic Asset Name	Historic Asset Type	Record created?	Trysor comments
4058	TWYN SWND	Round Barrow	Record created	The name Twyn Swnd is given to part of the open mountain, c. 2km to the SSE
4059	TWYN SWND	Round Barrow	Record created	The name Twyn Swnd is given to part of the open mountain, c. 2km to the SSE
4060	SYTHFAEN	Standing Stone	Record created	Better NGR is SN7660722570
8879	TY-UCHAF	Round Barrow	Record created	The NGR is incorrect, the cairn should be at SN7639722741
8889	NANT FFYNNON-WEN	Hut Circle	Record created	
8890	NANT FFYNNON-WEN	Round Barrow	Record created	Lots of typos in the description
8891	NANT FFYNNON-WEN	Round Barrow	Record created	Some typos in description
13001	TY UCHAF	Cairnfield	Record created	No records for PRNs 45158 and 45157 which are mentioned in this record, there may be other records

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				missing.
32337		Settlement	No record created	Not sure what this relates to, unclear what post med settlement, could be a DRS on common somewhere
45571	TWYN SWND	ROUND BARROW CEMETERY	No record created	Overall number, not required for this assessment
45572	TWYN SWND	PREHISTORIC MONUMENT COMPLEX	No record created	Overall number, not required for this assessment
45573	TWYN SWND	ROUND BARROW PAIR	No record created	Overall number, not required for this assessment
45574	TWYN SWND	ROUND BARROW PAIR	No record created	Overall number, not required for this assessment
55456		RIDGE AND FURROW	Record created	This record not visible on Archwilio online map, although can be found by putting the PRN into the Archwilio url. No sources or event given
110685		BUILDING	Record created	

Table 3: Comments on records from the regional HER

- 14.3 The RCAHMW's National Monuments Record had a several recorded historic assets within the assessment area which were not included in the regional HER, such as sheep fold ID number 14. It proved to be an useful additional source, especially in relation to the enclosure boundaries ID number 16 and 17 as a RCAHMW fieldworker had described the area in a record created for the abandoned "intake" of common land (NPRN 84325)
- 14.4 Google Earth aerial images of the assessment area were also used online. These date to 2005, 2006, 2009, 2010, 2013, 2015 and 2016 and provide good coverage for the whole assessment area.
- 14.5 LiDAR imagery of 2 metre and 1 metres resolution was available from the Lle website. It was of good quality for this area, and helped identify the location and condition of some historic assets.

Jenny Hall & Paul Sambrook Trysor, February, 2019

Appendix A: Specification

SPECIFICATION FOR AN HISTORIC ENVIRONMENT DESK-BASED ASSESSMENT INCLUDING WALKOVER SURVEY FOR A MICRO HYDRO SCHEME AT PANT Y TURNOR, LLANDDEUSANT CARMARTHENSHIRE 18/16877/FUL

1. Introduction

1.1 Gemma Samuels of TGVHydro Ltd CRIC Beaufort Street Crickhowell NP8 1BN has commissioned Trysor on behalf of their clients to undertake an historic environment deskbased assessment with a walkover survey for a proposed micro hydro scheme at Pant y Turnor, Llanddeusant, Llangadog, Carmarthenshire, SA19 9TN, centred on SN7632422266, planning application 18/16877/FUL.

2. The proposed development

2.1 It is proposed that a high head micro hydro scheme, centred on SN7632422266, is installed at Pant y Turnor on the north side of the Mynydd Du, Carmarthenshire.

2.2 The scheme will consist of two intake weirs on two tributaries of the Nant Ffynnonwen. The northern weir at approximately SN7663122199 will feed the southern weir at approximately SN7651221969 via a feeding pipe. From the southern weir, water will be piped to the turbine house at SN7601922195. The water will be returned to the stream at SN 7600922177 via a short outflow pipe, and electricity exported by cable back to a building at approximately SN7599622520 at Pant y Turnor.

3. Planning context of the proposed development

3.1 A planning application has been submitted, planning application 18/16877/FUL (Brecon Beacons).

3.2 The Application was commented on by the Heritage Officer (Archaeology) at Brecon Beacons National Park Authority who recommended a walkover survey be carried out before the application is determined.

"Insufficient evidence and information has been provided to date in relation to the potential archaeological impact of the scheme.

It is recommended that an archaeological walkover survey is conducted to map, and assess any potential for impact to, known heritage sites and to prospect for any further unrecorded heritage assets. The walkover survey should be undertaken by a qualified archaeological contractor, and in accordance with an agreed archaeological written scheme of investigation approved in writing by the Local Planning Authority Archaeologist and which must meet the standards laid down by the Chartered Institute for Archaeologists.

Following approval, the report will inform further works necessary: determination of the application/ or whether further archaeological work is required."

Heritage Officer (Archaeology) Internal Memorandum dated 10/01/2019

4. Objective of the Specification

4.1 The objective of this specification is to specify the method to be used for a desk-based assessment and walk over survey in order to identify and assess impact, both direct and indirect on the historic environment and historic assets, from the proposed development and future management recommendations.

4.2 The Chartered Institute for Archaeologists' Standard and Guidance for Historic Environment Desk-based Assessment (CIfA, 2017) and Cadw's Setting of Historic Assets (Cadw, 2017) were used to write this Written Scheme of Investigation as well as requirements from Brecon Beacons National Park Authority (Brecon Beacons National Park, Undated).

5. Nature of the Archaeological Resource.

5.1 The development site lies on the north side of Mynydd Du, approximately 2.5 kilometres south of Twynllanan, Carmarthenshire.

5.1.1 The geology in the area comprises sedimentary rocks of the Devonian Period dating to between 393 million and 419 million years ago. These include interbedded argillaceous rocks and sandstones of the St Maughans Formation in the northern part of the study area, with argillaceous rocks of the Senni Formation across the southern part of the study area. The bedrock is overlain by glacial till deposited by ice and meltwater during the last Ice Age.

5.2 The Heritage Officer (Archaeology) outlined the archaeological resource as

"The application site is located within a rich archaeological context, within the Black Mountain and Mynydd Myddfai Landscape of Outstanding Historic Interest. The landscape surrounding the application site contains rich and diverse evidence of land use from the prehistoric period to the recent past, exemplifying the dynamic interrelationship between upland and lowland zones.

The application boundary primarily follows the route of the Nant Ffynnon Wen, one of many streams flowing north from Brest Y Rhos to the Sawdde Fechan. Streams flowing from the Black Mountain are often a focus for prehistoric and later activity. A number of prehistoric burnt mounds, typically located next to streams, are known within the area, and include the scheduled remains of the Llwyn Y Wennol burnt mound to the south-west (CM 288). Other, undesignated examples are recorded in the vicinity (DAT 4061, 3513). The scheduled remains of the standing stone & round cairns of Tyle-Pengam are located some 350m to the north and east of the application boundary (CM181).

In addition, these water sources often represent the focus of medieval or later, permanent or seasonal transhumance settlement. Recorded examples include DAT 32337, located on an adjacent stream, and several sites within the wider vicinity (DAT 32340, DAT 105478, DAT 32339). An unrecorded enclosure bank is located within the vicinity of the proposed route, testimony to a historic phase of ?Medieval/ Post medieval upland enclosure. Heritage assets testifying to post-medieval pastoral systems include the Nant Fynnon Wen

Heritage assets testifying to post-medieval pastoral systems include the Nant Fynnon Wen sheepfold (BBNPA 5106) and sheep wash (BBNPA 5107), both located in close proximity to the stream and proposed pipeline route."

Heritage Officer (Archaeology) BBNPA Internal Memorandum dated 10/01/2019

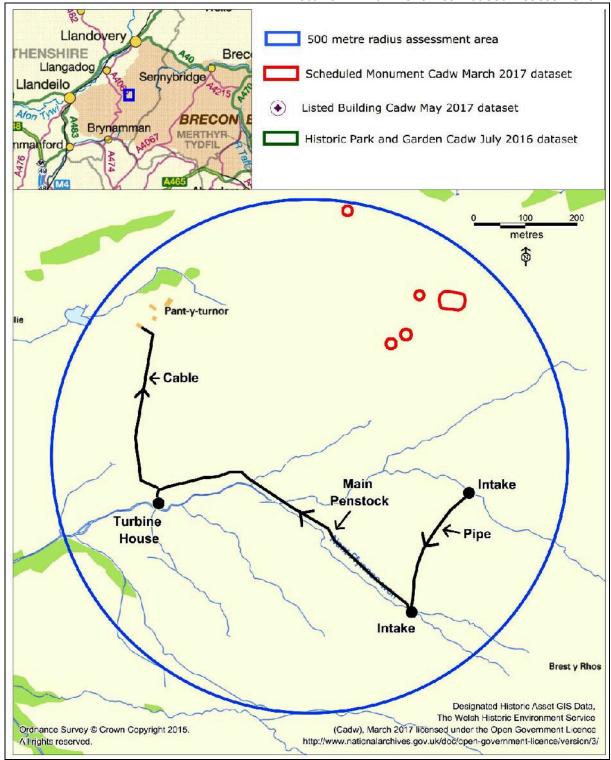


Figure 1: The approximate location of the components of the development and the proposed 500 metre radius assessment area.

6. Scope of Work

6.1 All currently recorded historic assets within a 500 metre radius circle centred on SN7632422266 will be included in the project database, see Figure 1.

6.2 A walkover survey along the route of the development will be undertaken to record any previously unrecorded historic assets, see Figure 1. The walkover survey will be informed by documentary searches, including map regression and consultation of aerial photographs and LiDAR where available.

6.3 The significance of the historic assets recorded in the project database from stages 6.1 and 6.2 will be assessed according to Cadw guidelines (Cadw, 2010 & Cadw 2017).

6.4 The potential impact on the historic assets recorded in the project database will be assessed.

6.5 Utilising the understanding of the historic environment gained during the project the potential for unknown buried features in the development area will be assessed.

7. Methodology

7.1 The work will be undertaken as soon as possible dependant on timely agreement of the specification, and delivery of HER data when requested.

7.2 The following components of the historic environment will be considered, where relevant;

- a. Scheduled Monuments and their settings.
- b. Listed buildings and their settings.
- c. Registered Parks and Gardens and their essential settings.
- d. World Heritage Sites
- e. Conservation Areas
- f. Previously recorded non-designated historic assets and their settings,
- g. Buildings identified as of Local Importance where such buildings have been identified
- h. Newly identified historic assets, and their settings
- i. Historic Landscapes, and their characterisation
- j. Hedgerows and field patterns
- k. Ancient woodland
- 1. Place-name evidence
- m. Cumulative impacts
- n. Any agri-environmental interests or requirements
- o. Potential for buried archaeological
- p. Potential for palaeoenvironmental evidence

7.3 The following data sources will be consulted as a minimum:

- Carmarthenshire Historic Environment Record
- Cadw
- RCAHMW
- Historic Ordnance Survey maps
- Other historic maps including parish tithe map
- Aerial photographs
- Documentary sources
- Published journals

• LiDAR if available

7.4 A site visit will be carried out in accordance with Chartered Institute for Archaeologists' *Standard and Guidance for an Historic Environment Desk-based Assessment* (CIfA, 2017). The site visit will consist of a walkover survey to identify and record any previously unrecorded features in the vicinity of the proposed development, including any field boundaries. It will also assess the condition of known historic assets.

7.4.1 A rapid record of all historic assets will be made, including a written description on pro-forma record sheets. A handheld GPS will be used to record locations and to record linear features and the perimeter of extensive historic assets.

7.4.2 Colour digital photographs will be taken, using a 16M pixel camera. A written record will be made on site of the photographs taken, including direction and locations. Appropriate photographic scales will be used.

7.5 All data will be entered into a project database, conforming to MIDAS heritage standards. Once the dataset of existing and new data has been created, the significance of all identified historic assets will be assessed, considering their evidential, historical, aesthetic and communal values (Cadw, 2010) and their setting (Cadw, 2017). This will include current condition and existing impacts.

7.6 An assessment will be made of the potential impact of the development on all historic assets, looking at direct physical, indirect physical, and visual impacts. This will include impact on the setting of the historic assets in line with Cadw guidance and the resulting impact on significance (Cadw, 2017) where appropriate.

7.7 Elevation profiles, in conjunction with photos from the site visit and aerial photos, will be used assess to intervisibility, views and impact on setting where appropriate.

8. Reporting

8.1 A written report will be submitted to the client to inform the current planning application. The report will include;

- a. bilingual event summary for submission to the HER
- b. contents list
- b. a non-technical summary
- c. an introduction
- d. aims and objectives of the assessment
- e. methodology
- f. a site location plan
- g. details of the proposed development
- g. a bibliography
- h. a gazetteer of all historic assets included in the assessment giving significance and impact, with descriptions.
- j. an assessment of the value and significance of each historic asset taking into account their condition and existing impacts
- k. an assessment of the impact of the proposed development on the historic assets of the study area impacts will be assessed whether negative or positive, direct or indirect and will include the impact on the setting of nationally important historic assets.
- 1. statement of the local and regional context of the historic assets identified as have being impacted on by the development.
- m. statement on reliability of resources used during assessment.
- n potential for buried archaeological features within the development plot
- o mitigation statements to minimise or mitigate negative impacts, or to enhance significance.
- p management recommendations for incorporation into a Management Plan (not part of this project) to promote the management of the historic environment.

8.2 The report will be guided by the requirements of Annexe 2 of the Chartered Institute for Archaeologists' *Standard and Guidance for an Historic Environment Desk-based Assessment (ClfA, 2017)*. Copies of the report will be provided to the client and the Local Planning Authority. A copy will be sent to the Regional Historic Environment Record when approved by the BBNPA Heritage Officer (Archaeology)

9. Health & Safety

9.1 Trysor will undertake a risk assessment in advance of any field visit in accordance with their health and safety policy.

10. Dissemination

10.1 A summary of the work undertaken and its findings will be submitted to *Archaeology in Wales,* if appropriate. A pdf copy of the report will be submitted to the regional Historic Environment Record (HER) in line with current guidance, as well as with the archive to the National Monuments Record (NMR).

11. Archive

11.1 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* (CIfA, 2014b) and *The National Standard and Guidance to Best Practice for Collecting and Depositing*

Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire 18/16877/FUL (BBNPA) Historic Environment Desk-based Assessment Archaeological Archives in Wales 2017 (NPAAW, 2017). 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).

12. Public Benefit and Outreach

12.1 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), if appropriate.

12.2 The results of the work will be deposited in the NMR making it publicly accessible. The report will be also be deposited with the regional Historic Environment Record (HER) making it publicly accessible. This will be in line with recent guidance from The Welsh Archaeological Trusts (The Welsh Archaeological Trusts, 2018).

12.3 The purpose of the work and the history of the site will be discussed with the client and others in order to widen understanding of why the work is important and broaden appreciation for the historic environment.

13. Resources to be used

13.1 Jenny Hall, BSC, MCIfA and Paul Sambrook, BA, PGCE, MCIfA of Trysor will undertake the desk-based assessment and field walking. During the field visit and field walking they will be equipped with standard field equipment, including digital cameras, GPS and first aid kit. Trysor have access to the computer hardware and software required to deliver the completed final report and archive to a professional standard.

14. Qualification of personnel

14.1 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

14.2 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. She has been a partner in Trysor since 2004 undertaking a variety of work that includes upland field survey, desk-based appraisals and assessments, watching briefs and evaluations as well heritage interpretation and community-based projects.

14.3 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. He has been a partner in Trysor since 2004 undertaking a variety of work including upland field survey, desk-based appraisals/assessments, watching briefs and evaluations as well as community-based, non-intrusive projects and community heritage interpretation.

15. Insurance & Professional indemnity

15.1 Trysor has Public Liability and Professional Indemnity Insurance.

16. Project identification

16.1 The project has been designated Trysor Project No. 2019/656. The Event Record PRN is DAT HER PRN 114814.

17. Sources

Brecon Beacons National Park, Undated, *General Requirements for Archaeological Desk* Based Assessments in the Brecon Beacons National Park, issued to client on 22 August 2018

Cadw, 2010, Conservation Principles

Cadw, 2017, Setting of Historic Assets in Wales

Chartered Institute for Archaeologists (CIfA), updated January 2017, *Standard and Guidance for an Historic Environment Desk-based Assessment*.

Heritage Officer (Archaeology), 2019, Internal Memorandum dated 10/01/2019

RCAHMW, 2015, RCAHMW Guidelines for Digital Archives

The Welsh Archaeological Trusts, 2018, *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)*

http://www.dyfedarchaeology.org.uk/heritagemanagement/submissionofdatatohers.pdf

Jenny Hall & Paul Sambrook Trysor, January 2019

Appendix B: Gazetteer of historic assets

ID num	ber: 1	-	WND; TYLE BARROW	PENGAM		
HER PRN:	40)58	NMR NPRN:			
NGR:	SN7653	522579	Feature Centre	d		
Period:	Bronze	Age	Broadclass:	Religious R	itual and Funerary	
Form:	Earthwo	rk	Condition: Go	od	Survival: Damaged	
Site Status	: Schee	duled Monument				
Trysor Descriptior		metres in diam past and the bu at the edge of t cemetery group Standing Stone Ordnance Surv	e round barrow eter. The centre urial cist is expo the barrow. It i o and is also loc e, which is also so ey's 1:63360 so	e of the cairr sed. Some k s one of five ated just to scheduled. T ale map of 1	grade: o 0.4 metres high and is 8 has been disturbed in the kerb stones are also exposed a cairns or barrows within a the west of the Tyle Pengam the barrow is shown on the 1831, along with the standing round barrow immediately to	
Rarity:		Not rare				
Distance fr developme	-	390 metres to the north				
Group Valu	ie:	Part of a cairn group associated with a standing stone				
Evidential	Value:	Earthwork mound				
Historical \	/alue:	Mentioned in a	rchaeological so	urces		
Aesthetic V	/alue:	None				
Communal	Value:	None				
Setting:	Setting: This round barrow is situated on top of a low but locally prominent ridge, and is associated with a group of five cairns. It stands just west of another barrow and the Tyle Pengam/Sythfaen standing s			e cairns. It stands just to the		
Significanc	e:	Nationally Impo	ortant			
Any Direct Impact?:		No None				
Any Indired Impact?:	ct	Yes Very Low Intervisibility				
Level of Im on Setting:	-	None				
Comment o Impact:	on	although the an monument, the intervisible with	ea of the develored elements of th	opment wou e developme ne weirs will	velopment would mean that ld be intervisible with this ent would themselves not be be hidden in mountain rills ed.	

ID num	ber:		I SWND; TYLE ID BARROW	PENGAM	
HER PRN:	2	1059	NMR NPRN:	84286	
NGR:	SN765	92257	Feature Centre	ed	
Period:	Bronze	Age	Broadclass:	Religious R	itual and Funerary
Form:	Earthw	ork	Condition: Go	od	Survival: Damaged
Site Status	: Sche	eduled Monum	ent		
Trysor Descriptior		metres in di past and the within a cen west of the barrow is sh along with t	Age round barrow ameter. The centre burial cist is exponetery group and is Tyle Pengam Standown on the Ordna	e of the cairr sed. It is of s also locate ding Stone, nce Survey's (named as S	grade: o 1.5 metres high and is 15 has been disturbed in the he of five cairns or barrows d within 10 metres to the which is also scheduled. The s 1:63360 scale map of 1831, Sythfaen) and a second round
Rarity:		Not rare			
Distance fr developme	-	380 metres t	o the north		
Group Valu	ie:	Part of a cai	rn group associate	d with a sta	nding stone
Evidential	Value:	Earthwork n	nound		
Historical \	/alue:	Mentioned in	n archaeological so	ources	
Aesthetic V	/alue:	None			
Communal	Value:	None			
Setting:		This round barrow is situated on top of a low but locally prominent ridge, and is associated with a group of five cairns. It stands within 10 metres to the west of the Tyle Pengam/Sythfaen standing stone.			e cairns. It stands within 10
Significanc	e:	Nationally I	nportant		
Any Direct Impact?:		No None			
Any Indired Impact?:	ct	Yes Very Low Intervisibilit	у		
Level of Im on Setting:		None			
Comment o Impact:	on	although the monument, intervisible	e area of the devel the elements of th	opment wou e developmene weirs will	velopment would mean that ld be intervisible with this ent would themselves not be be hidden in mountain rills ed.

ID num	ber: 3	-	EN; TYLE PI	ENGAM	
HER PRN:	4	060	NMR NPRN:	84287	
NGR:	SN7660	722570	Feature Centre	ed	
Period:	Bronze	Age	Broadclass:	Religious R	itual and Funerary
Form:	Structu	re	Condition: Go	od	Survival: Intact
Site Status	: Sche	duled Monument			
Trysor Description		metres wide ar boundary bank associated with stone is shown which names it	e Standing Stor od 0.4 metres do on the end of a five cairns or b on the Ordnand	eep. It stand low but loca parrows with ce Survey's 1 with two rou	grade: to 2 metres high and is 1.3 ds on a post-medieval field ally prominent ridge. It is in a cemetery group. The 1:63360 scale map of 1831, and barrows also shown e today.
Rarity:		Not common			
Distance fr developme	nt:	380 metres to t			
Group Valu	e:	Associated with	n five cairns		
Evidential	Value:	Standing stone	in situ		
Historical V	/alue:	Mentioned in a	rchaeological so	ources	
Aesthetic V	/alue:	None			
Communal	Value:	None			
Setting:		This large standing stone is situated on top of a low but locally prominent ridge, and is associated with a group of cairns. One relatively large cairn stands within 10 metres to the west of the standing stone.			roup of cairns. One relatively
Significanc	e:	Nationally Imp	ortant		
Any Direct Impact?:		No None			
Any Indired Impact?:	ct	Yes Very Low Intervisibility			
Level of Im on Setting:		None			
Comment o Impact:	n	although the a monument, the intervisible wit	rea of the devel e elements of th	opment wou e developme e weirs will b	velopment would mean that Id be intervisible with this ent would themselves not be e hidden in mountain rills and

ID num	ber: 4	TY-UCH/	٩F		
		ROUND	BARROW		
HER PRN:	88	79	NMR NPRN:		
NGR:	SN76522	27	Feature Centred		
Period:	Bronze A	ge	Broadclass: R	eligious Ri	itual and Funerary
Form:	Earthwor		Condition: Good		Survival: Near Intact
Site Status	: Sched	uled Monument			
Trysor Description		high. It is locate five cairns, alon cairn lies 270 m group of at leas fields to the we clearance cairn further PRNs rel 45158), neither	airn, measuring 6 ed in a pasture fiel g with the Tyle Pe letres to the north t six clearance cai st of this cairn and rather than a ritua levant to clearance	metres in Id. It is sc engam Sta northwes rns (PRN d it is poss al cairn. T e cairns in to exist in	grade: diameter and up to 1 metre heduled as one of a group of anding Stone, although this st of the standing stone. A 13001) are recorded in the sible that this is actually a he HER also refers to two this area (PRNs 45157 & the public record and have y DAT.
Rarity:		Not rare			
Distance fr developme		550 metres nort	h-northeast		
<i>Group Value:</i> Part of a cairn group associated with a standing stone			nding stone		
Evidential Value: Earthwork mound					
Historical V			haeological sourc	es	
Aesthetic V		None			
Communal	Value:	None			
Setting: Significanc	o.	To the southeas Standing Stone	t the land rises to and four other ca n into a shallow n	a low rid irns are fo	l on a northwest-facing slope. ge where the Tyle Pengam bund. To the northwest the am valley.
Significanc	с.		italit		
Any Direct Impact?:		No None			
Any Indireo Impact?:	ct	No None			
Level of Im on Setting:		None			
Comment o Impact:	on		n ground means th the proposed dev		onument would not be

ID num	ber: 5	NANT F	FYNNON-WEN RCLE			
HER PRN:	88	89	NMR NPRN:			
NGR:	SN76408	322307	Feature Centred			
Period:	Prehistor	ric	Broadclass: Domestic			
Form:	Documer	ntary Evidence	Condition: Destroyed	Survival: Destroyed		
Site Status	:					
Trysor Descriptioi	_	feature had been	en removed during land im trace of it now survives, a	<i>grade:</i> Ordnance Survey in 1977, this oprovement by the early 21st opart from a possible hollow		
Rarity:		Not common				
Distance fr developme	nt:	185 metres to t	he northeast			
Group Valu	le:	None				
Evidential	Value:	Documentary				
Historical Value: Shown on modern OS maps						
Aesthetic \	Aesthetic Value: None					
Communal	Value:	None				
Setting:		This possible hut circle was on a northwest facing slope just to the south of the Nant Ffynnon Wen stream when noted in the 1970s. The land has been improved and the feature has been lost.				
Significanc	:e:	Minor Importar	nce			
Any Direct Impact?:		No None				
Any Indire Impact?:	ct	No None				
Level of In on Setting:		None				
Comment o Impact:	on	This feature ha	s been destroyed			

ID num	ber:	6	NANT FFYNNON-WEN ROUND BARROW		
HER PRN:	:	8890	NMR NPRN: 84296		
NGR:	SN765	12250	Feature Centred		
Period:	Bronze	e Age	Broadclass: Religious Ritual and Funerary		
Form:	Earthw	vork	Condition: Fair Survival: Damaged		
Site Status	: Sch	eduled	Monument		
Trysor Descriptior		This met past bour of a barr	ber: CM181 LB number: grade: Bronze Age round barrow stands up to 0.4 metres high and is 11 res in diameter. The centre of the cairn has been disturbed in the and there is a large hollow in the body of the cairn. A field hdary fence crosses the cairn from northeast to southwest. It is one pair of round barrows, being 30 metres to the northeast of round ow PRN 8891. These barrows are part of a larger group of five eduled cairns associated with the Tyle Pengam Standing Stone.		
Rarity:		Not	rare		
Distance fr developme Group Valu	nt:		netres north-northwest of a cairn group associated with a standing stone		
Evidential Value: Earthwork mound			hwork mound		
Historical Value:			cribed in archaeological sources		
Aesthetic V	/alue:	Non	e		
Communal	Value:	Non	e		
Setting:		This round barrow is one of a pair situated on top of a low gnoll overlooking a southeast facing slope which descends to the Nant Ffynnon Wen stream. Some 100 metres to the northeast is the Tyle Pengam Standing Stone and two other round barrows, on a low but locally prominent ridge.			
Significanc	e:	Nati	onally Important		
Any Direct Impact?:		No Non	2		
Any Indired Impact?:	ct		' Low ible intervisibility		
Level of Im on Setting:	-	Non	e		
Comment o Impact:	on.	altho mon inter	low-impact nature of the proposed development would mean that bugh the area of the development would be intervisible with this ument, the elements of the development would themselves not be rvisible with the stone. The weirs will be hidden in mountain rills and connecting water pipe will be buried.		

ID num	ber:		NT FFYNNON-WEN UND BARROW				
HER PRN:	8	891	NMR NPRN: 84297				
NGR:	SN7648	32248	Feature Centred				
Period:	Bronze	Age	Broadclass: Religious Ritual and Funerary				
Form:	Earthw	ork	Condition: Good Survival: Near Intact				
Site Status	: Sche	duled Mon	iment				
Trysor Description		metres ir it has be being 30 barrows	CM181 LB number: grade: ze Age round barrow stands up to 0.5 metres high and is 11 diameter. The cairn is denuded but there is no evidence that en disturbed in the past. It is one of a pair of round barrows, metres to the southwest of round barrow PRN 8890. These are part of a larger group of five scheduled cairns associated Tyle Pengam Standing Stone.				
Rarity:		Not rare					
Distance fr developme	-	320 metre	es north-northwest				
Group Valu	e:	Part of a	Part of a cairn group associated with a standing stone				
Evidential \	Value:	Earthwor	k mound				
Historical Value:		Describe	Described in archaeological sources				
Aesthetic V	alue:	None					
Communal	Value:	None					
Setting:		This round barrow is one of a pair situated on top of a low gnoll overlooking a southeast facing slope which descends to the Nant Ffynnon Wen stream. Some 125 metres to the northeast is the Tyle Pengam Standing Stone and two other round barrows, on a low but locally prominent ridge.					
Significance	e:	Nationall	/ Important				
Any Direct Impact?:		No None					
Any Indired Impact?:	ct	Yes Very Low Possible	ntervisibility				
Level of Im on Setting:	-	None					
Comment o Impact:	n	although monume intervisib	mpact nature of the proposed development would mean that the area of the development would be intervisible with this nt, the elements of the development would themselves not be le with the stone. The weirs will be hidden in mountain rills and ecting water pipe will be buried.				

ID numbe	r: 8 TY UCH CAIRNI				
HER PRN:	13001	NMR NPRN:			
	7632122713	Group or Complex Cer	ntred		
	onze Age		bus Ritual and Funerary;Agriculture		
Form: Co	mplex	Condition: Good	<i>Survival:</i> Near Intact		
Site Status:					
Trysor Description:	Trust in 2002- to be funerary to these cairns	2003. Some were said cairns. The HER also re s (PRNs 45157 & 45158)	grade: ed by the Dyfed Archaeological to be clearance cairns and others fers to two further PRNs relevant), neither of which appear to exist n supplied with the data provided		
Rarity:	Not rare				
Distance from development:	365 metres eas				
Group Value:	A group of up	to 9 cairns			
Evidential Valu	<i>Ie:</i> Stone cairns				
Historical Valu	e: Mentioned in a	archaeological sources			
Aesthetic Valu	e: None				
Communal Val	ue: None				
Setting:	To the southea Standing Ston	This cairn group is located in pasture fields on a northwest-facing slope. To the southeast the land rises to a low ridge where the Tyle Pengam Standing Stone and four funerary cairns are found. To the northwest the land slopes down into a shallow minor stream valley.			
Significance:	Locally Import	ant			
Any Direct Impact?:	No None				
Any Indirect Impact?:	No None				
Level of Impac on Setting:	c t None				
<i>Comment on Impact:</i>	_	gh ground means that tl th the proposed develop	his monument would not be ment.		

ID num	ber: 9		NGAM AND FURROW		
HER PRN:	554	156	NMR NPRN:		
NGR:	SN7668	2261	Area centred		
Period:	Medieva	I	Broadclass: Ag	riculture a	nd Subsistence
Form:	Earthwo	rk	Condition: Good	S	Survival: Near Intact
Site Status	:				
Trysor Description		parcels along a over an area of	low ridge to the so	on aerial plotter	grade: notographs within four field Tyle Pengam. It extends The cultivation may be of
Rarity:		Not rare			
Distance fr developme Group Valu	nt:	150 metres to th None	ne north		
Evidential		Earthwork evid	ence of historic cult	tivation	
Historical V	/alue:	None			
Aesthetic V	/alue:	None			
Communal	Value:	None			
Setting:			on ridges are seen v ow pastureland.	within four	adjacent field parcels in an
Significanc	e:	Locally Importa	int		
Any Direct Impact?:		No None			
Any Indired Impact?:	ct	Yes Very Low Intervisibility			
Level of Im on Setting:		None			
Comment o Impact:	on	although the ar cultivation ridge not be intervisi	ea of the developmes, the elements of	the develo orks. The v	lopment would mean that be intervisible with these opment would themselves weirs will be hidden in will be buried.

ID num	ber: 10	NANT F	FYNNON WEN TURE			
HER PRN:	110685	5	NMR NPRN:			
NGR:	SN763962	2204	Feature Centred			
Period:	Post Medie	eval	Broadclass: Monume	nt (By Form)		
Form:	Documenta	ary Evidence	Condition: Not Known	Survival: Not Known		
Site Status	:					
Trysor Descriptior	n: m n o tł T a a	rectilinear str nap at this poi orthwest side n the parish ti ne map is dam he 1811 Ordn building here t this location	nt. It appears to have be of the field boundary bar the map, which does not haged at this point and th ance Survey Original Sur , possibly a cottage. No r	grade: 887 1:2500 Ordnance Survey en a fold or pen built onto the ak. The field was named as Col show a structure here, although e field is known as "Garden". veyors Drawings appear to show emains of a structure are visible raphs and no structure was		
Rarity:	C	common				
Distance fr developme) metres to the	e east-northeast			
Group Valu	e: N	lone				
Evidential	Value: S	hown on an h	istoric map			
Historical \	<i>lalue:</i> N	lone				
Aesthetic Value:		None				
Communal	Value: N	lone				
Setting:		his structure s ank.	stood within a pasture fie	ld, built against a field boundary		
Significanc	e: M	linor Importar	nce			
Any Direct Impact?:		lo lone				
Any Indired Impact?:		lo lone				
Level of Im on Setting:		lone				
Comment c Impact:	on T	his structure o	does not appear to surviv	e		

ID num	ber: 11	1 NANT FF SHEEP F	TYNNON WEN			
HER PRN:	114815		NMR NPRN:			
NGR:	SN7625	022167	Feature Centred			
Period:	Post Me	dieval	Broadclass: Agriculture and Subsistence			
Form:	Docume	ntary Evidence	Condition: Destroyed Survival: Destroyed			
Site Status	52					
SAM Trysor Description:		number:LB number:grade:A sheep fold is shown here on the 1877 1:2500 scale Ordnance Survey map. The fold appears to have been lost when a modern trackway was constructed to the site in the later 20th century. No evidence of the fold was noted during fieldwork in 2019. It may have been associated with a sheep wash in the stream but not evidence of this has been noted.				
Rarity:		Common				
Distance fr developme		10 metres to the	e southwest			
Group Valu	ie:	None				
Evidential	Value:	Historic mapping				
Historical Value:		None				
Aesthetic Value:		None				
Communal	Value:	None				
Setting:	tting: This small sheep fold stood on the southern side of the Nant Ffynnonwen. The area has been disturbed by the extension of a trackway across the area of the fold in the later 20th century and t fold now appears to have been lost.					
Significanc	ce:	Minor Importan	ce			
Any Direct Impact?:		No None				
Any Indire Impact?:	ct	No None				
Level of In on Setting:		None				
Comment o Impact:	on	This structure n	o longer survives.			

ID num	ber: 12	2 PANT Y BARN	TURNOR	
HER PRN:	114816		NMR NPRN:	
NGR:	SN7599	122520	Feature Centred	
Period:	Post Me	dieval	Broadclass: Agrie	culture and Subsistence
Form:	Building		Condition: Good	Survival: Converted or
Re-Used				
Site Status	5:			
Trysor Description	_	farmyard at Pa	nt y Turnor. This buil	r: grade: ing complex set around the ding stands to the southwestern side it has been converted for residential
Rarity:		Common		
Distance fr developme	-	Within		
Group Valu	ie:	Part of the farm	nstead complex at Pa	nt y Turnor
Evidential	Value:	Standing buildi	ing, converted	
Historical	Value:	None		
Aesthetic \	Value:	None		
Communal	Value:	None		
Setting:		A former farm	building	
Significanc	ce:	Minor Importar	nce	
Any Direct Impact?:		Yes Very Low The hydro-elec	tric system will be co	nnected to this building.
Any Indire Impact?:	ct	No None		
Level of In on Setting		None		
<i>Comment o</i> Impact:	on		building by electric ca	nnected to this already modernised ables which will have no impact on

ID num	ber: 13	NANT FI WALL	FYNNON WE	N	
HER PRN:	114817		NMR NPRN:		
NGR:	SN75979	22180	Linear		
Period:	Post Med	ieval	Broadclass:	Agriculture	and Subsistence
Form:	Structure	2	Condition: Poo	or	Survival: Damaged
Site Status	:				
Trysor Description	•••••	parish tithe ma not in good con fenceline, just t the boundary b wall is less that	vall appears to b p and the 1887 idition but has b to its northern s etween the pari t 1 metre high a	1:2500 scal been supplar ide, and is t sh commons nd it is ofter	grade: the 1840 Llanddeusant e Ordnance Survey map. It is the by a post and wire herefore still a feature along s and enclosed farmland. The n a revetment at the bottom ections of it have fallen.
Rarity:		Common			
Distance fr developme Group Valu	nt:	Within Part of a wider	field system		
Evidential Value: Ruinous drystone wall					
Historical Value: None					
Aesthetic V	Aesthetic Value: None				
Communal	Value:	None			
Setting:					Nant Ffynnon Wen where the sed fields to the north.
Significanc	e:	Minor Importan	ice		
Any Direct Impact?:		Yes Moderate A water outlet pipe will cross the wall line to return water from the turbine house to the Nant Ffynnon Wen stream			
Any Indired Impact?:	ct	Yes Moderate The turbine house will stand just to the north of the wall line and groundworks associated with the construction of the building could impact on the wall.			
Level of Im on Setting:	-	None			
Comment o Impact:	on	common bound this point. It de	lary) is importar fines the base o	nt to maintai of slope, abo	andscape feature (as the in a stock-proof boundary at ive which a modern fence walling could undermine the

ID numb	per: 14	NANT F SHEEP	FYNNON WE Fold	EN		
HER PRN:	114818		NMR NPRN:	421605		
NGR:	SN7639	022150	Feature Centre	ed		
Period:	Post Me	dieval	Broadclass:	Agriculture	and Subsistence	
Form:	Structur	e	Condition: Go	od	Survival: Near Intact	
Site Status	:					
	SAM	number:	LB nu	ımber:	grade:	
Trysor Description	1:	Llanddeusant p 19th century, a unclear. It has decay. At the t 17 cells of vary arranged arour	parish commons as evidenced by not been in use ime of the 1877 ving size can be	. This sheep historic map in modern t '1:2500 Ord identified wi re, central co	the northern edge of the fold was in place by the late oping, but its origins are times and is now in a state of nance Survey map, a total of thin the fold. 16 of these are ell. Entry appears to have	
Rarity:		Not rare				
Distance fr developme	-	20 metres to th	e northeast			
Group Valu		None				
Evidential	Value:	Drystone struc	ture			
Historical V	/alue:	Shown on histo	oric mapping			
Aesthetic V	sthetic Value: None					
Communal	Value:	None				
Setting:		This disused structure was built close to an access point onto the parish commons, just to the south of the Nant Ffynnon-wen valley. This would have been a convenient point to gather sheep together and separate the flocks, with each cell being for the use of a different farm. Sheep sorting and shearing would have been a communal activity when the fold was in use.				
Significanc	e:	Locally Importa	ant			
Any Direct Impact?:		No None				
Any Indired Impact?:	ct	Yes Low Vehicular erosi	on is possible he	ere		
Level of Im on Setting:		None				
Comment o Impact:	on	sheep fold, the vehicular activi activity does no	proximity of pi ty may occur cl ot unintentional	pe-laying act ose to the fo ly damage th	not directly impact on the tivity means that some Id. It is important that this ne fold, which is presently in d by contact with vehicles.	

ID number: 15 NANT FFYNNON WEN PLATFORM							
HER PRN:	114819		NMR NPRN:				
NGR:	SN7645	722111	Feature Centred				
Period:	Medieva	al	Broadclass: Monum	nent (By Form)			
Form:	Earthwo	ork	Condition: Good	Survival: Near Intact			
Site Status	:						
Trysor Description	SAM	alignment on t Its measured & area measures end and a sligh side slightly cu the platform, in	the open mountain pastu 3 metres in length overa 5 6 metres long with a sl 1 fan at the west-south 1 into the slope. There is 1 ncluding a possible wall 3 that a hut with a stone	grade: west-northwest to east-southeast ires of the Mynydd Du common. Il by 4 metres wide. The leveled ight apron at the west-northwest east end. The north-northeast s stone visible across the area of base along the south-southwest foundation may once have stood			
Rarity:		Not rare					
Distance fr	-	60 metres to th	e northeast				
developme							
Group Valu	ie:	Not known. The platform lies 50 metres east-southeast from a large drystone sheepfold and may have been associated with it.					
Evidential	Value:	Earthwork					
Historical V	/alue:	None					
Aesthetic V	/alue:	None					
Communal	Value:	None					
Setting:		slope on the opplatform lies 5	pen mountain pastures o	el ground, on a northwest facing of the Mynydd Du common. The t from a large drystone sheepfold			
Significanc	e:	Locally Import	ant				
Any Direct Impact?:		No None					
Any Indired Impact?:	ct	Yes Low Vehicular activity could inadvertently damage this feature					
Level of Im on Setting:	-	None					
Comment o Impact:	on			ect impact on the feature but ould cause indirect damage.			

ID numb	ber: 16		Fynnon we Ary bank	N				
HER PRN:	114820		NMR NPRN:	84325				
NGR:	SN7661	722107	Linear					
Period:	Post Me	dieval	Broadclass:	Agriculture	and Subsistence			
Form:	Earthwo	ork	Condition: Go	od	Survival: Near Intact			
Site Status	:							
SAM I Trysor Description:		number:LB number:grade:A denuded earthwork bank, part of a wider intake (NPRN 84325) on the fringe of the Mynydd Du commons in the uplands of Llanddeusant parish, probably of post-medieval date. It runs west-southwest to east-northeast up the hillslope for some 410 metres from the Nant Ffynnonwen stream to one of its tributary rill. It appears to continue for some distance beyond this point along the northern side of the tributary rill.						
Rarity:		Common						
Distance fr developme	nt:	Within	Within					
Group Valu	ie:	Part of a wider field system						
Evidential	Value:	Linear earthwork						
Historical \	/alue:	None						
Aesthetic V	/alue:	None						
Communal	Value:	None						
Setting:		A denuded and disused boundary bank on the fringes of Llanddeusant parish commons						
Significanc	e:	Locally Importa	ant					
Any Direct Impact?:								
Any Indirea Impact?:	ct	Yes Low Construction a	ctivity could furt	her denude	the bank			
Level of Im on Setting:		None						
Comment o Impact:	on	pipe laid to cor development.	nnect the two in	takes associ connection	cut through to bury the water ated with the proposed with the development could ke to protect it.			

ID numb	er: 17		Fynnon We Ary Bank	EN			
HER PRN:	114821		NMR NPRN:	84325			
NGR:	SN7656	922045	Linear				
Period:	Post Me	dieval	Broadclass:	Agriculture	and Subsistence		
Form:	Earthwo	rk	Condition: Go	od	Survival: Near Intact		
Site Status	:						
SAM Trysor Description:		number:LB number:grade:A denuded earthwork bank, part of a wider intake (NPRN 84325) on the fringe of the Mynydd Du commons in the uplands of Llanddeusant parish, probably of post-medieval date. It runs north-northeast to south-southwest for some 145 metres and crosses a mountain rill at its southern end, before terminating at a second rill. At its northern end it joins another boundary bank, which runs west-southwest to east-northeast up the hillslope.					
Rarity:		Common					
Distance fro developme Group Valu	nt:	Within					
Group valu	C.	Part of a wider field system					
Evidential \	Value:	Linear earthwork					
Historical V	/alue:	None					
Aesthetic V	'alue:	None					
Communal	Value:	None					
Setting:		A denuded and disused boundary bank on the fringes of Llanddeusant parish commons					
Significance	e:	Locally Importa	ant				
Any Direct Impact?:		Yes Low The water pipe	will pass throug	gh this bank			
Any IndirectYesImpact?:LowConstruct		Low					
Level of Im on Setting:	-	None					
Comment o Impact:	n	pipe laid to cor development. V	nect the two in	takes associa connection	cut through to bury the water ated with the proposed with the development could ke to protect it.		

ID numb	9er: 18	NANT FI MOUND	FYNNON WE	N			
HER PRN:	114822		NMR NPRN:				
NGR:	NGR: SN7636921998		Feature Centre	Feature Centred			
Period:	Unknow	n	Broadclass:	Monument	(By Form)		
Form:	Earthwo	rk	Condition: Go	od	Survival: Intact		
Site Status	:						
Description: about 0.3 me not known b side by a she mounds of si		A small, earthw about 0.3 metr not known but side by a sheep	LB number: grade: work mound measuring 2.25 metres in diameter and res high. It is found on the open common. Its purpose is it appears to be an earth mound, cut along its southwest p track. It could be a Bronze Age funerary cairn, as illar size and context have been found to contain als.				
Rarity:		Not rare					
Distance fro developme Group Valu	nt:	80 metres to the	e southwest				
	<i>e.</i>	None					
Evidential \	Value:	Earthwork mou	arthwork mound				
Historical Value: None		None	e				
Aesthetic Value: None							
Communal	Value:	None					
Setting:		Du commons, o Nant Ffynnonw	nd is located close to the northern edge of the Mynydd n relatively level ground which falls away gently to the en stream valley to the northwest.				
Significance	e:	Unknown					
Any Direct Impact?:		No None					
would not directly common via the tr relatively close to			evelopment would not be visible from this point and tly threaten the mound. Any vehicles accessing the e trackway from the gate to the north would pass to this mound however and could accidentally damage marked during construction work to ensure it is avoided.				
Level of Im on Setting:		None					
Comment o Impact:	on	would not direct common via the relatively close	tly threaten the e trackway from to this mound h	e mound. And the gate to nowever and	isible from this point and y vehicles accessing the the north would pass could accidentally damage work to ensure it is avoided.		

ID number: 19		NANT FFYNN SHEEP FOLD	ON WEN			
HER PRN:	114823	NMR	NPRN:			
NGR:	SN7605	522092 Featur	e Centred			
Period:	Modern	Broad	Iclass: Agriculture	and Subsistence		
Form:	Structur	e Cond	tion: Very Good	Survival: Intact		
Site Status	:					
Trysor Descriptior	•••••		he late 20th or early	grade: and sheep-wire construction. 21st century and is first magery.		
Rarity:		Not rare				
Distance fr developme	nt:	70 metres to the south	-southeast.			
Group Valu	le:	None				
Evidential	Value:	Modern structure				
Historical \	/alue:	None				
Aesthetic V	/alue:	None				
Communal	Value:	Probably shared by several farms				
Setting:			rack which farmers	dge of the mountain pasture, use to take animals to and		
Significanc	e:	Minor Importance				
Any Direct Impact?:		No None				
Any Indire Impact?:	Any IndirectNoImpact?:None					
Level of Im on Setting:		None				
Comment o Impact:	on	This is a minor, mode	n feature			

Appendix C: Management Recommendations

ID number: 1 TWYN SWND; TYLE PENGAM ROUND BARROW						
HER PRN:	4,058	NMR	NPRN:			
NGR:	SN765352257	79 Featur	e Centred			
Period:	Bronze Age	Broad	Iclass:	Religious R	itual and Funerary	
Form:	Earthwork	Condi	tion: Good	t	Survival: Damaged	
Site Status	Scheduled	Ancient Monumen	t			
	SAM num	ber: CM181	LB nun	nber:	grade:	
Manageme	nt Observatio	ons:				
Not threate	ned by propose	ed development				
Manageme	ent Recommer	ndations:				
Not threate	ned by propose	ed development				
ID num	ber: 2	TWYN SWND ROUND BARF	•	PENGAM		
HER PRN:	4,059	NMR	NPRN:	84286		
NGR:	SN76592257	Featur	e Centred			
Period:	Bronze Age	Broad	Iclass:	Religious R	itual and Funerary	
Form:	Earthwork	Condi	tion: Good	t	Survival: Damaged	
Site Status	Scheduled	Ancient Monumen	t			
	SAM num	ber: CM181	LB nun	nber:	grade:	
Managomo	nt Observatio	<i>nc</i> ,				

Management Observations:

Not threatened by proposed development

Management Recommendations:

Not threatened by proposed development

ID number: 3 SYTHFAEN; TYLE PENGAM

STANDING STONE

HER PRN:	4,060	NMR NPRN:	84287	
NGR:	SN7660722570	Feature Centred		
Period:	Bronze Age	Broadclass:	Religious Ritual and Funerary	
Form:	Form: Structure		od Survival: Intact	
Site Status	: Scheduled Ancient Mo	onument		

SAM number: CM181 LB number: grade:

Management Observations:

Not threatened by proposed development

Management Recommendations:

	Micro	o Hydro Sch		anddeusant Carmarthenshire 18/16877/FUL (BBNPA)
				nent Desk-based Assessment
ID num	ber: 4	TY-UCHA		
HER PRN:	8,879	ROUND E	BARROW NMR NPRN:	
NGR:	SN765227	F	Feature Centred	
Period:	Bronze Age		-	Ritual and Funerary
Form: Site Status	Earthwork	Ancient Mon	<i>Condition:</i> Good	Survival: Near Intact
Sile Status		nber: CM181		grade:
	oni i nui			grader
-	ent Observati			
Not threate	ned by propos	ed developm	ent	
Manageme	ent Recomme	ndations:		
Not threate	ned by propos	ed developm	ent	
ID num	ber: 5	NANT FF	YNNON-WEN	
		HUT CIR	CLE	
HER PRN:	8,889	-	NMR NPRN:	
NGR:	SN76408223	-	Feature Centred	
Period: Form:	Prehistoric		Broadclass: Domestic Condition: Destroyed	
FOITH	Documentary	/ LVIUEIICE	Condition , Destroyed	Survival: Destroyed
Site Status			,	
Site Status			LB number:	grade:
	SAM num	ıber:		grade:
Manageme	SAM num sant Observati	nber: ons:	LB number:	grade:
Manageme	SAM num	nber: ons:	LB number:	grade:
Manageme Not threate	SAM num sant Observati	nber: ons: ed developme	LB number:	grade:
Manageme Not threate Manageme	SAM num SAM num ant Observati ned by propos	ober: ons: ed developmo ndations:	<i>LB number:</i> ent	grade:
Manageme Not threate Manageme	SAM num SAM num ant Observati ned by propos ant Recomme	ober: ons: ed developmo ndations:	<i>LB number:</i> ent	grade:
Manageme Not threate Manageme	SAM num ant Observation ned by propos ant Recomment ned by propos	ober: ons: ed developme ndations: ed developme	<i>LB number:</i> ent	grade:
<i>Manageme</i> Not threate <i>Manageme</i> Not threate	SAM num ant Observation ned by propos ant Recomment ned by propos	ober: ons: ed developme ndations: ed developme	<i>LB number:</i> ent ent YNNON-WEN	grade:
<i>Manageme</i> Not threate <i>Manageme</i> Not threate	SAM num ant Observation ned by propos ant Recomment ned by propos	nber: ons: ed developme ndations: ed developme NANT FF ROUND E	<i>LB number:</i> ent ent YNNON-WEN	grade:
Manageme Not threate Manageme Not threate ID num HER PRN: NGR:	SAM num sent Observati ned by propos ent Recomme ned by propos ber: 6 8,890 SN76512250	nber: ons: ed developme ndations: ed developme NANT FF ROUND E	<i>LB number:</i> ent ent YNNON-WEN BARROW <i>MR NPRN:</i> 84296 Feature Centred	
Manageme Not threate Manageme Not threate ID num HER PRN: NGR: Period:	SAM num ant Observation ned by propos ant Recomme ned by propos ber: 6 8,890 SN76512250 Bronze Age	nber: ons: ed developme ndations: ed developme NANT FF ROUND E	LB number: ent ent YNNON-WEN BARROW MMR NPRN: 84296 Feature Centred Broadclass: Religious	Ritual and Funerary
Manageme Not threate Manageme Not threate ID num HER PRN: NGR:	SAM num ant Observation and by propose ant Recommend ned by propose ber: 6 8,890 SN76512250 Bronze Age Earthwork	nber: ons: ed developme ndations: ed developme NANT FF ROUND E	LB number: ent ent YNNON-WEN BARROW MR NPRN: 84296 Feature Centred Broadclass: Religious Condition: Fair	
Manageme Not threate Manageme Not threate ID num HER PRN: NGR: Period: Form:	SAM num ant Observation ned by propose ant Recommend ned by propose ber: 6 8,890 SN76512250 Bronze Age Earthwork Scheduled	nber: ons: ed developme ndations: ed developme NANT FF ROUND E	LB number: ent ent YNNON-WEN BARROW NMR NPRN: 84296 Feature Centred Broadclass: Religious Condition: Fair	Ritual and Funerary Survival: Damaged
Manageme Not threate Manageme Not threate ID num HER PRN: NGR: Period: Form: Site Status	SAM num ant Observation and by propose ant Recommend ned by propose ber: 6 8,890 SN76512250 Bronze Age Earthwork Scheduled SAM num	aber: ons: ed developme ndations: ed developme NANT FF ROUND E	LB number: ent ent YNNON-WEN BARROW MR NPRN: 84296 Feature Centred Broadclass: Religious Condition: Fair	Ritual and Funerary
Manageme Not threate Manageme Not threate ID num HER PRN: NGR: Period: Form: Site Status Manageme	SAM num ant Observation ned by propose ant Recommend ned by propose ber: 6 8,890 SN76512250 Bronze Age Earthwork Scheduled SAM num ant Observation	nber: ons: ed developme ndations: ed developme NANT FF ROUND E ROUND E Ancient Mon nber: CM181	LB number: ent ent YNNON-WEN BARROW NMR NPRN: 84296 Feature Centred Broadclass: Religious Condition: Fair nument LB number:	Ritual and Funerary Survival: Damaged
Manageme Not threate Manageme Not threate ID num HER PRN: NGR: Period: Form: Site Status Manageme	SAM num ant Observation and by propose ant Recommend ned by propose ber: 6 8,890 SN76512250 Bronze Age Earthwork Scheduled SAM num	nber: ons: ed developme ndations: ed developme NANT FF ROUND E ROUND E Ancient Mon nber: CM181	LB number: ent ent YNNON-WEN BARROW NMR NPRN: 84296 Feature Centred Broadclass: Religious Condition: Fair nument LB number:	Ritual and Funerary Survival: Damaged
Manageme Not threate Manageme Not threate ID num HER PRN: NGR: Period: Form: Site Status Manageme Not threate	SAM num ant Observation ned by propose ant Recommend ned by propose ber: 6 8,890 SN76512250 Bronze Age Earthwork Scheduled SAM num ant Observation	nber: ons: ed developme ndations: ed developme NANT FF ROUND E ROUND E Ancient Mon ober: CM181 ons: ed developme	LB number: ent ent YNNON-WEN BARROW NMR NPRN: 84296 Feature Centred Broadclass: Religious Condition: Fair nument LB number:	Ritual and Funerary Survival: Damaged

	Micro	Hydro Scheme	e, Pant y Turno	or, Llanddeusant Carmarthenshire
		-		18/16877/FUL (BBNPA)
	ber: 7			ronment Desk-based Assessment
1D num	Der: /	NANT FFYNI ROUND BAF	-	
HER PRN:	8,891		R NPRN: 8429	97
NGR:	SN76482248	Feat	ure Centred	
Period:	Bronze Age			ious Ritual and Funerary
Form:	Earthwork		dition: Good	Survival: Near Intact
Site Status		Ancient Monume		_
	SAM num	ber: CM181	LB number	: grade:
Manageme	ent Observatio	ons:		
Not threate	ned by propos	ed development		
Manageme	ent Recomme	ndations:		
Not threate	ned by propos	ed development		
ID num	ber: 8	TY UCHAF		
	12 001	CAIRNFIELD		
HER PRN:	13,001		R NPRN:	
NGR: Devie de	SN76321227		p or Complex Ce	
Period: and Subsister	Bronze Age	Broa	aciass: Relig	ious Ritual and Funerary;Agriculture
Form:	Complex	Con	dition: Good	Survival: Near Intact
Site Status	S:			
	SAM num	ber:	LB number	: grade:
Manageme	ent Observatio	ons:		
_		ed development		
	, , ,	•		
Manageme	ent Recomme	ndations:		
Not threate	ned by propos	ed development		
ID num	ber: 9	TYLE PENGA		
		RIDGE AND		
HER PRN:	55,456	NMI	R NPRN:	
NGR:	SN76682261		centred	
Period:	Medieval		-	culture and Subsistence
Form: Site Status	Earthwork	Con	dition: Good	Survival: Near Intact
Sile Status	-	h		
	SAM num	ber:	LB number	: grade:
Manageme	ent Observatio	ons:		
Not threate	ned by propos	ed development		
	ent Recomme			

	SAM numl	ber:	LB nu	mber:	grade:
Site Status	:				
Form:	Documentary	Evidence	Condition: No	t Known	Survival: Not Known
Period:	Post Medieval		Broadclass:	Monument	: (By Form)
NGR:	SN763962220)4	Feature Centre	d	
HER PRN:	110,685		NMR NPRN:		
		STRUCT	TURE		
ID num	ber: 10	NANT F	FYNNON WE	N	
			Historic	: Environm	ent Desk-based Assessment
	MICro	Hyaro Sc	neme, Pant y	Turnor, Lia	18/16877/FUL (BBNPA)

Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire

Management Observations:

Not threatened by proposed development

Management Recommendations:

Not threatened by proposed development

ID num	ber: 11 NANT F	NANT FFYNNON WEN				
	SHEEP	FOLD				
HER PRN:	114,815	NMR NPRN:				
NGR:	SN7625022167	Feature Centred				
Period:	Post Medieval	Broadclass: Agriculture and Subsistence				
Form:	Documentary Evidence	Condition: Destroyed	Survival: Destroyed			
Site Status:						
	SAM number:	LB number:	grade:			

SAM number: LB number:

Management Observations:

Not threatened by proposed development

Management Recommendations:

Not threatened by proposed development

ID number: 12 PANT Y TURNOR

	BARN	
HER PRN:	114,816	NMR NPRN:
NGR:	SN7599122520	Feature Centred
Period:	Post Medieval	Broadclass: Agriculture and Subsistence
Form:	Building	Condition: Good Survival: Converted or
Re-Used		
Site Status	:	

SAM number:

LB number:

grade:

Not threatened by proposed development

Management Observations:

Management Recommendations:

Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire 18/16877/FUL (BBNPA) Historic Environment Desk-based Assessment						
ID num	ber: 13	NANT FI	FYNNON WI	EN		
		WALL				
HER PRN:	114,817		NMR NPRN:			
NGR:	SN7597922	180	Linear			
Period:	Post Medieva	al	Broadclass:	Agriculture	and Subsistence	
Form:	Structure		Condition: Po	or	Survival: Damaged	
Site Status:						
	SAM num	nber:	LB n	umber:	grade:	

Management Observations:

The retention of the wall line as a historic landscape feature (as the common boundary) is important to maintain a stock-proof boundary at this point. It defines the base of slope, above which a modern fence now acts as the boundary. The loss of the walling could undermine the fence.

Management Recommendations:

Care should be taken not to further erode or remove the surviving walling during the construction of the turbine house here. A section of collapsed wall offers a convenient point through which to run the water pipe back to the stream below, and the subsequent restoration of this section of walling would both improve the boundary at this point and help secure the foundation of the turbine house above.

		NANT F SHEEP	FYNNON WE FOLD	N	
HER PRN:	114,818		NMR NPRN:	421605	
NGR:	SN7639022150		Feature Centred		
Period:	Post Medieval		Broadclass: Agriculture and Subsistence		
Form:	Structure		Condition: Good		Survival: Near Intact
Site Status:					
	SAM number:		LB number:		grade:

Management Observations:

Although the proposed development would not directly impact on the sheep fold, the proximity of pipe-laying activity means that some vehicular activity may occur close to the fold. It is important that this activity does not unintentionally damage the fold, which is presently in good condition but could be easily damaged by contact with vehicles.

Management Recommendations:

Ensure contractors are aware that the sheep fold must not be disturbed by their activity.

Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire 18/16877/FUL (BBNPA) Historic Environment Desk-based Assessment						
ID num	ber: 15	NANT FFYNNON W	FFYNNON WEN			
		PLATFORM				
HER PRN:	114,819	NMR NPRN:				
NGR:	SN76457221	Feature Centr	ed			
Period:	Medieval	Broadclass:	Monument	(By Form)		
Form:	Earthwork	Condition: Good Survival: Near Intact				
Site Status:						
	SAM num	nber: LB n	umber:	grade:		

Management Observations:

The development would not have a direct impact on the feature but activity associated with construction could cause indirect damage.

Management Recommendations:

The mound should be marked during construction work to ensure it is avoided.

ID num	ber: 16	NANT FFYNI	-	N		
		BOUNDARY	BANK			
HER PRN:	114,820	NM	R NPRN:	84325		
NGR:	SN76617221	07 Linea	ar			
Period:	Post Medieva	Broa	adclass:	Agriculture	and Subsistence	
Form:	Earthwork	Con	Condition: Good		Survival: Near Intact	
Site Status:						
	SAM num	ber:	LB nu	mber:	grade:	

Management Observations:

A very small section of the bank would be cut through to bury the water pipe laid to connect the two intakes associated with the proposed development. Vehicles used in connection with the development could further erode the bank unless steps are take to protect it.

Management Recommendations:

Where the water pipe is laid through the bank, ensure the bank is disturbed as little as possible and reinstated after the pipe is laid. An archaeological watching brief may be considered on this element of the work. Any vehicles used in association with the development should use existing gaps in the bank to pass from one side to the other and should not drive over the earthwork itself.

	Micro	o Hydro Scheme, Pai	nt y Turnor,	Llanddeusant Carmarthenshire
				18/16877/FUL (BBNPA)
		His	storic Enviroi	nment Desk-based Assessment
ID numb	per: 17	NANT FFYNNON	WEN	
		BOUNDARY BAN	1K	
HER PRN:	114,821	NMR NPI	RN: 84325	
NGR:	SN76569220	145 Linear		
Period:	Post Medieva	al Broadcla	ss: Agricult	ure and Subsistence
Form:	Earthwork	Condition	n: Good	Survival: Near Intact
Site Status	:			
	SAM num	ıber: L	B number:	grade:

Management Observations:

A very small section of the bank would be cut through to bury the water pipe laid to connect the two intakes associated with the proposed development. Vehicles used in connection with the development could further erode the bank unless steps are take to protect it.

Management Recommendations:

Where the water pipe is laid through the bank, ensure the bank is disturbed as little as possible and reinstated after the pipe is laid. An archaeological watching brief may be considered on this element of the work. Any vehicles used in association with the development should use existing gaps in the bank to pass from one side to the other and should not drive over the earthwork itself.

ID num	ber: 18	NANT FFYNNON WE MOUND	EN	
HER PRN:	114,822	NMR NPRN:		
NGR:	SN76369219	998 Feature Centre	red	
Period:	Unknown	Broadclass:	Monument (By Form)	
Form:	Earthwork	Condition: Go	ood Survival: Intact	
Site Status	:			
	SAM num	nber: LB ne	umber: grade:	

Management Observations:

The proposed development would not be visible from this point and would not directly threaten the mound. Any vehicles accessing the common via the trackway from the gate to the north would pass relatively close to this mound however and could accidentally damage it.

Management Recommendations:

The mound should be marked during construction work to ensure it is avoided.

Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshir 18/16877/FUL (BBNPA					
			Historic	Environm	nent Desk-based Assessment
ID num	ber: 19	NANT FFYN	INON WE	N	
		SHEEP FOL	D		
HER PRN:	114,823	NM	IR NPRN:		
NGR:	SN76055220	92 Fea	ature Centred	ł	
Period:	Modern	Bro	oadclass:	Agricultur	e and Subsistence
Form:	Structure	Со	ndition: Very	y Good	Survival: Intact
Site Status					

SAM number:

LB number:

grade:

Management Observations:

Not threatened by proposed development

Management Recommendations:

Not threatened by proposed development

Appendix D: Photographs

Micro Hydro Scheme, Pant y Turnor, Llanddeusant Carmarthenshire

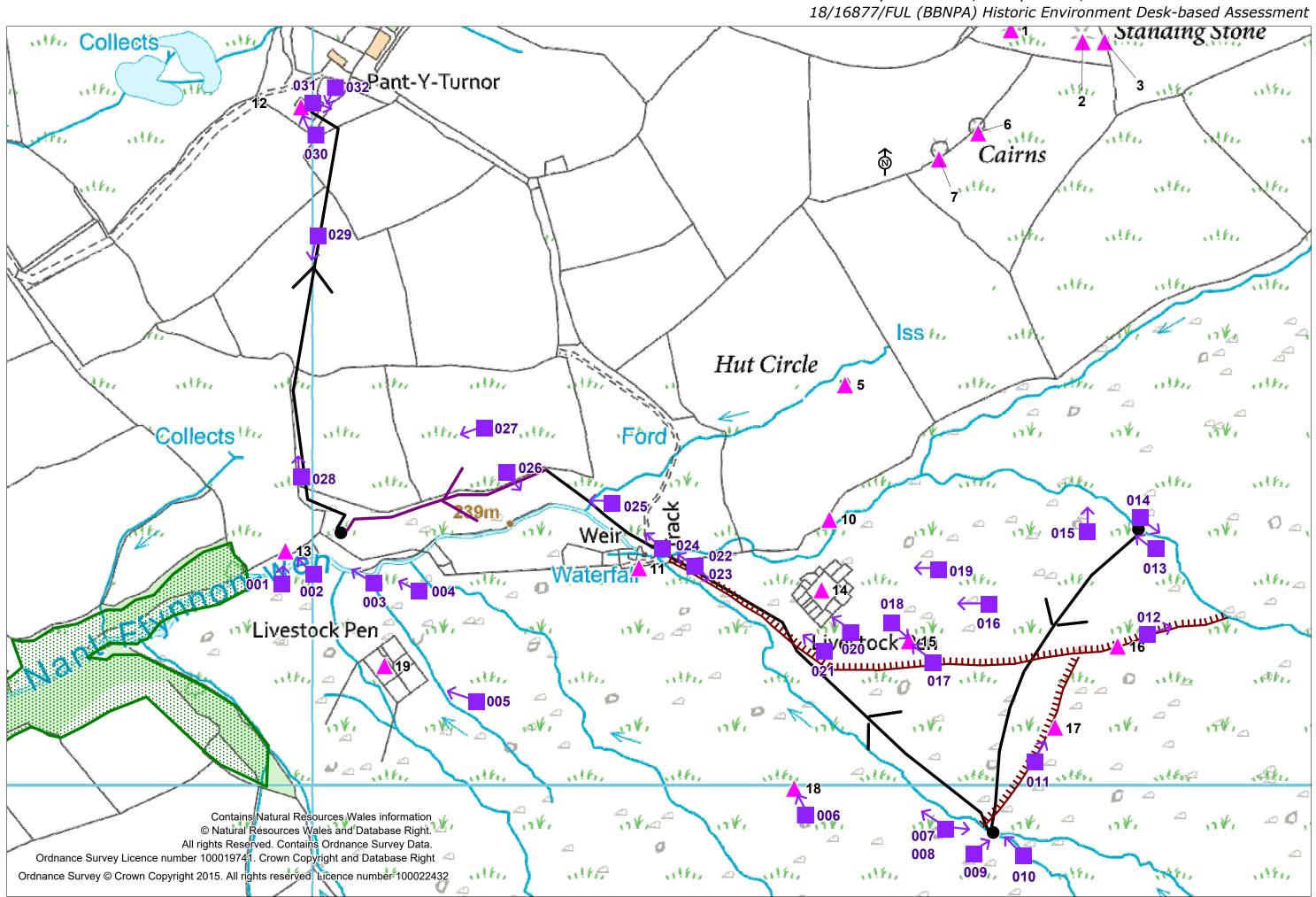


Figure 7: Locations of Photographs PYT2019_101 to PYT2019_031

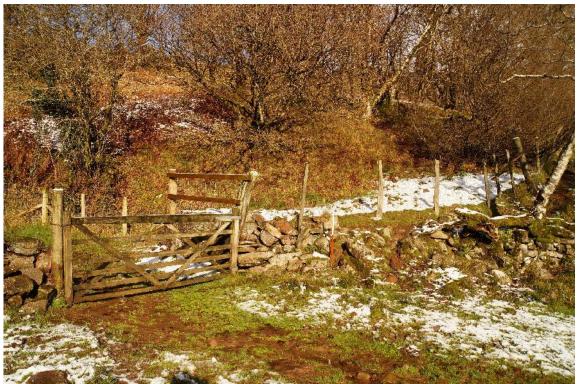


Plate 1: PYT2019_001 – a view of the ruinous wall ID number 13 at the gate which gives access to the common. The turbine house would be position on the slope above the wall left of centre here. Note the tumble-down section of the wall to the left of the ranging rod used for scale. Looking north.



Plate 2: PYT2019_002 – wall ID number 13 viewed again. The tumble down section of walling seen to the left of the ranging rod would be a suitable point through which to pass the pipe returning water to the stream from the turbine house. The repair of this section of wall once the pipe has been laid would help prevent further erosion here. Looking northeast.



Plate 3: PYT2019_003 – a view across the ford on the Nant Ffynnonwen, toward the gate and wall ID number 13. Looking northwest.

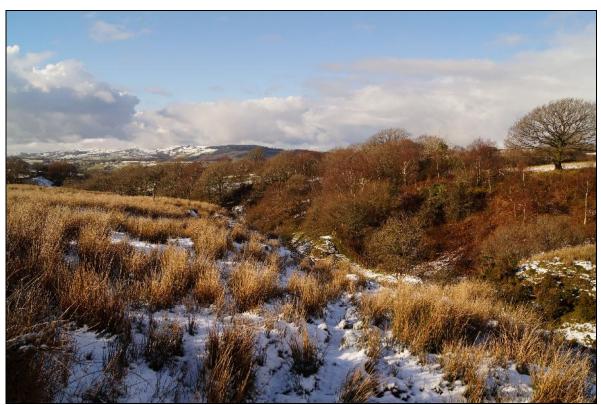


Plate 4:*PYT2019_004 – a view of the Nant Ffynnonwen valley from the common to the southeast, looking towards the area where the turbine house would be located, on the opposite side of the valley. Looking west-northwest.*



Plate 5:*P*YT2019_005 – a view of the modern timber and sheep-wire fold ID number 19 on the open common. Looking west-northwest.



Plate 6: PYT2019_006 – a small earth mound ID number 18, difficult to photograph under snow cover, but hiding the feet of the figure in the image. Looking north-northwest.



Plate 7: PYT2019_007 – a view of the upper reaches of the main Nant Ffynnonwen valley where the tank for the main pipeline will be located shows that the valley surface is heavily obscured by ground vegetation, including gorse along the steep sides. Looking southeast, up the slope.



Plate 8: PYT2019_008 – a view down the upper reaches of the Nant Ffynnonwen again shows this mountain rill to be heavily vegetated, with large gorse bushes dominant along the northeastern side of the valley. Looking northwest.



Plate 9: PYT2019_009- a view into the upper part of the valley to the location of the dam where the main pipeline would begin. The valley floor is narrow and rough and the valley sides are steep. There are no archaeological features visible along the valley and it would not be suited to typical upland monument types such as long huts and burnt mounds due to its narrowness and steepness of the valley sides. Looking east-northeast.



Plate 10: PYT2019_010 – a return view from the location of the dam where the main pipeline would begin. Looking northwest.



Plate 11: PYT2019_011 – a view of the denuded field boundary bank ID number 17, looking north-northeast.



Plate 12: PYT2019_012 – a view of the denuded field boundary bank ID number 16. Both this bank and bank ID number 17 are part of a much more extensive enclosure of the mountain which extends up onto Brest y Rhos beyond the tree seen in the middle distance here. Looking east-northeast



Plate 13: PYT2019_013 – a view of the tributary rill of the Nant Ffynnonwen, to the north of the main valley, where a second tank and feeding pipe would be located. Again this rill has steep sides and a narrow floor and ground vegetation, especially gorse, obscures much of the surface. Looking northwest.



Plate 14: PYT2019_014 -. Looking southeast.



Plate 15: PYT2019_015 – a view towards the Tyle Pengam Standing Stone (ID number 3) seen on the horizon in the centre of this photograph. A slight mound on the horizon to its left in this image is the scheduled round barrow ID number 2). The proposed development would have no impact on these monuments. Looking north.



Plate 16: PYT2019_016 – a view of the drystone sheep fold ID number 14 which stands close to the edge of the common. Looking west.



Plate 17: PYT2019_017 – a view of the newly identified platform ID number 15, with the sheep fold ID number 14 in the background. Looking west-northwest.



Plate 18: PYT2019_018 – a view of platform ID number 15. Looking east-southeast.



Plate 19: PYT2019_019 – a view of sheep fold ID number 14. Looking west.



Plate 20: PYT2019_020 – a closer view of the southeast side of sheep fold ID number 14, showing a sheep creep which gave access into one of the cells of the fold complex. Looking northwest.



Plate 21: PYT2019_021 – a view of the lower part of the main rill of the Nant Ffynnonwen stream as it approaches the common boundary to the west of sheep fold ID number 14. Looking northwest.



Plate 22: PYT2019_022 – a view of the lower part of the main rill of the Nant Ffynnonwen stream as it approaches the common boundary. The walls of sheep fold ID number 14 can be seen top left. The stone wall left of centre is a continuation of boundary bank ID number 14. Looking southeast.



Plate 23: PYT2019_023 – a view of the point where the main rill of the Nant Ffynnonwen crosses the common boundary. The valley beyond the common boundary is both steep-sided and heavily obscured by trees and ground vegetation. Looking northwest.



Plate 24: PYT2019_024 – following the line of the proposed pipe along the Nant Ffynnonwen valley is difficult due to the ground vegetation and tree cover. No features of archaeological interest could be discerned. Looking northwest.



Plate 25: PYT2019_025 – a view into the Nant Ffynnonwen valley shows how narrow and steep-sided much of the valley is. The main pipeline will run along the valley side below this point. Looking west.



Plate 26: PYT2019_026 – another view into the main part of the Nant Ffynnonwen valley. The rill where the main pipeline would begin is visible left of centre at the top of the image. Looking southeast.



Plate 27: PYT2019_027 – a view of the fields immediately above the northern side of the Nant Ffynnonwen valley. Despite being enclosed in the 19th century, this part of the holding has been allowed to remain as, or return to, rough pasture and Molina (purple-moor grass) now dominates the fields. Looking west-southwest.



Plate 28: PYT2019_028 – a view of a boundary bank within the area of Molina. The boundary bank is double-fenced suggesting that it has been protected from grazing animals in modern times. The electricity cable to Pant y Turnor from the turbine house will run along the opposite side of this bank, buried beneath the surface. Looking north-northwest.



Plate 29: PYT2019_029 – proceeding from the area of Molina grazing, the electricity cable would be buried beneath clean pasture fields en route to Pant y Turnor. No features of archaeological interest were seen in the fields here. Looking south-southwest.



Plate 30: PYT2019_030 – the electricity cable would end at this former barn, now converted for residential use, on the farmyard at Pant y Turnor. Looking north-northwest.

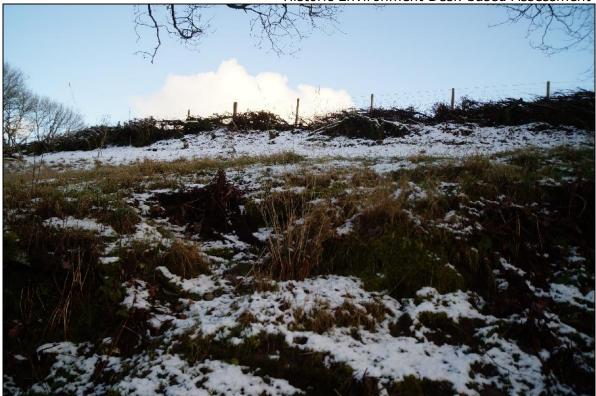


Plate 31: PYT2019_031 – the electricity cable would pass through a low earth bank and modern post and wire fence before descending a steep slope to the former barn at Pant y Turnor. The post-medieval field boundary here is not of historical significance. Looking southeast.



Plate 32: PYT2019_032 – another view of the steep slope down which the electricity cable would run approaching the former barn. It would then cross this modern track before reaching the barn. Looking south-southwest.

Site Code:	Site Name:		NGR:	
PYT2019	Pant y Turnor, Lland	deusant		
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by
PYT2019_001	A view of the ruinous wall ID number 13 at the gate which gives access to the common. The turbine house would be position on the slope above the wall left of centre here. Note the tumble-down section of the wall to the left of the ranging rod used for scale	North	17 January 2019	RPS
PYT2019_002	Wall ID number 13 viewed again. The tumble down section of walling seen to the left of the ranging rod would be a suitable point through which to pass the pipe returning water to the stream from the turbine house. The repair of this section of wall once the pipe has been laid would help prevent further erosion here	Northeast	17 January 2019	RPS
PYT2019_003	A view across the ford on the Nant Ffynnonwen, toward the gate and wall ID number 13	Northwest	17 January 2019	RPS

Historic Environment Desk-based Assessment						
Site Code:	Site Name:		NGR:			
PYT2019	Pant y Turnor, Lland					
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by		
PYT2019_004	A view of the Nant Ffynnonwen valley from the common to the southeast, looking towards the area where the turbine house would be located, on the opposite side of the valley.	West- northwest	17 January 2019	RPS		
PYT2019_005	A view of the modern timber and sheep- wire fold ID number 19 on the open common	West- northwest	17 January 2019	RPS		
PYT2019_006	A small earth mound ID number 18, difficult to photograph under snow cover, but hiding the feet of the figure in the image	North- northwest	17 January 2019	RPS		
PYT2019_007	A view of the upper reaches of the main Nant Ffynnonwen valley where the tank for the main pipeline will be located shows that the valley surface is heavily obscured by ground vegetation, including gorse along the steep sides	Southeast	17 January 2019	RPS		

Historic Environment Desk-based Assessment						
Site Code:	Site Name:	NGR:				
PYT2019	Pant y Turnor, Lland					
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by		
PYT2019_008	A view down the upper reaches of the Nant Ffynnonwen again shows this mountain rill to be heavily vegetated, with large gorse bushes dominant along the northeastern side of the valley	Northwest	17 January 2019	RPS		
PYT2019_009	A view into the upper part of the valley to the location of the dam where the main pipeline would begin. The valley floor is narrow and rough and the valley sides are steep. There are no archaeological features visible along the valley and it would not be suited to typical upland monument types such as long huts and burnt mounds due to its narrowness and steepness of the valley sides	East- northeast	17 January 2019	RPS		
PYT2019_010	A return view from the location of the dam where the main pipeline would begin	Northwest	17 January 2019	RPS		
PYT2019_011	A view of the denuded field boundary bank ID number 17	North- northeast	17 January 2019	RPS		

Site Code:	Histo	oric Environment	Desk-based	Assessment
Sile Coue.			NGR.	
PYT2019	Pant y Turnor, Lland			
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by
PYT2019_012	A view of the denuded field boundary bank ID number 16. Both this bank and bank ID number 17 are part of a much more extensive enclosure of the mountain which extends up onto Brest y Rhos beyond the tree seen in the middle distance here	East- northeast	17 January 2019	RPS
PYT2019_013	A view of the tributary rill of the Nant Ffynnonwen, to the north of the main valley, where a second tank and feeding pipe would be located. Again this rill has steep sides and a narrow floor and ground vegetation, especially gorse, obscures much of the surface	Northwest	17 January 2019	RPS
PYT2019_014	A view of the proposed location for the second tank and feeder pipe in the tributary rill	Southeast	17 January 2019	RPS
PYT2019_015	A view towards the Tyle Pengam Standing Stone (ID number 3) seen on the horizon in the centre of this photograph. A slight mound on the horizon to its left in	North	17 January 2019	RPS

Site Code:	Site Name:	pric Environment	NGR:	
PYT2019	Pant y Turnor, Lland	deusant		
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by
	this image is the scheduled round barrow ID number 2). The proposed development would have no impact on these monuments			
PYT2019_016	A view of the drystone sheep fold ID number 14 which stands close to the edge of the common	West	17 January 2019	RPS
PYT2019_017	A view of the newly identified platform ID number 15, with the sheep fold ID number 14 in the background	West- northwest	17 January 2019	RPS
PYT2019_018	A view of platform ID number 15	East- southeast	17 January 2019	RPS
PYT2019_019	A view of sheep fold ID number 14	West	17 January 2019	RPS
PYT2019_020	A closer view of the southeast side of sheep fold ID number 14, showing a sheep creep which gave access into one of the cells of the fold complex	Northwest	17 January 2019	RPS
PYT2019_021	A view of the lower part of the main rill of the Nant Ffynnonwen stream as it approaches the common boundary to the west of sheep fold ID number 14	Northwest	17 January 2019	RPS

Site Code:	Site Name:	oric Environment	NGR:	Assessment
PYT2019	Pant y Turnor, Lland	deusant		
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by
PYT2019_022	A view of the lower part of the main rill of the Nant Ffynnonwen stream as it approaches the common boundary. The walls of sheep fold ID number 14 can be seen top left. The stone wall left of centre is a continuation of boundary bank ID number 14	Southeast	17 January 2019	RPS
PYT2019_023	A view of the point where the main rill of the Nant Ffynnonwen crosses the common boundary. The valley beyond the common boundary is both steep-sided and heavily obscured by trees and ground vegetation	Northwest	17 January 2019	RPS
PYT2019_024	Following the line of the proposed pipe along the Nant Ffynnonwen valley is difficult due to the ground vegetation and tree cover. No features of archaeological interest could be discerned	Northwest	17 January 2019	RPS
PYT2019_025	A view into the Nant Ffynnonwen valley shows how narrow and steep-sided much of the valley is. The main pipeline will run along the valley side below this point	West	17 January 2019	RPS

Historic Environment Desk-based Assessment						
Site Code:	Site Name:	NGR:				
PYT2019	Pant y Turnor, Lland					
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by		
PYT2019_026	Another view into the main part of the Nant Ffynnonwen valley. The rill where the main pipeline would begin is visible left of centre at the top of the image	Southeast	17 January 2019	RPS		
PYT2019_027	A view of the fields immediately above the northern side of the Nant Ffynnonwen valley. Despite being enclosed in the 19 th century, this part of the holding has been allowed to remain as, or return to, rough pasture and Molina (purple-moor grass) now dominates the fields	West- southwest	17 January 2019	RPS		
PYT2019_028	A view of a boundary bank within the area of Molina. The boundary bank is double-fenced suggesting that it has been protected from grazing animals in modern times. The electricity cable to Pant y Turnor from the turbine house will run along the opposite side of this bank, buried beneath the surface	North- northwest	17 January 2019	RPS		

Historic Environment Desk-based Assessment					
Site Code:	Site Name:	NGR:			
PYT2019	Pant y Turnor, Lland				
Photo Number	Contexts/ Description	Direction Looking	Date	Taken by	
PYT2019_029	Proceeding from the area of Molina grazing, the electricity cable would be buried beneath clean pasture fields en route to Pant y Turnor. No features of archaeological interest were seen in the fields here	South- southwest	17 January 2019	RPS	
PYT2019_030	The electricity cable would end at this former barn, now converted for residential use, on the farmyard at Pant y Turnor	North- northwest	17 January 2019	RPS	
PYT2019_031	The electricity cable would pass through a low earth bank and modern post and wire fence before descending a steep slope to the former barn at Pant y Turnor. The post- medieval field boundary here is not of historical significance	Southeast	17 January 2019	RPS	
PYT2019_032	Another view of the steep slope down which the electricity cable would run approaching the former barn. It would then cross this modern track before reaching the barn	South- southwest	17 January 2019	RPS	