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BETTER WOODLANDS FOR WALES MANAGEMENT PLAN HERITAGE MANAGEMENT INFORMATION **(WHE1)**

Prepared for: Pistyll Wood

BWW Reference No 16588

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Archaeological Visit Recommended

The application area contains the Pistyll Limeworks complex, and it is littered with the remains of the lime industry. Apart from the built structures, some of which are listed buildings, there are numerous earthwork limekilns which may be vulnerable to woodland operations.

INTRODUCTION AND OBJECTIVES

Historic landscape character & archaeological and historical content

The application area consists of a single woodland parcel which lies on the limestone ridge where it is interupted by the Afon Marlas in the community of Llandybie, Carmarthenshire.

The northern side of the ridge is heavily wooded and has been so since at least the late 19th century. The area was dominated by limestone quarrying and burning since the late 18th century; the application area has numerous relict structures which relate to this industry, amongst them a bank of four limekilns which straddle a railway (PRN 27294) and an associated chimneystack (PRN 27292) both of which have been listed at Grade II. Other less visually dramatic limekilns survive within the woodland to the northeast, and are penannular earthworks which were built of earth and stone. These were flare kilns, so called because the kiln was fired and allowed to cool down before the lime was extracted.

The area has been subject to an archaeological survey in 1993-4, however the locations of the sites identified within this report are indicative. It should be considered that the whole application area is archaeologically sensitive, with features that are vulnerable to damage; therefore it is recommended that an archaeological visit is carried out to assess potential management issues.

Historic Environment Objectives

The purpose of the management is to

- Ensure the survival of visible historic features.
- Ensure archaeological deposits beneath the ground surface are not disturbed.
- Prevent progressive degradation of historic environment features by promoting sympathetic woodland management.
- Ensure the long-term preservation of features associated with historic woodland.
- Maintain or restore the historic configuration and visual character of the historic landscape.

GENERAL MANAGEMENT REQUIREMENTS

All historic earthworks, structures, archaeological sites and traditional buildings must be retained and protected against damage. The following list identifies those Historic Environment Features affected by this application and the accompanying mapping shows each of these and identifies a sensitive area surrounding it. These sensitive areas must be actively managed for the life of the woodland management plan in accordance with the following requirements, in line with the Forestry Commission's *Forestry & Archaeology Guidelines, 1995*.

Planning

- Ensure that new planting and re-planting schemes are planned to avoid the sensitive areas surrounding historic environment features. Ideally these sensitive areas should not simply be left as unplanted islands in otherwise continuous woodland. Wherever possible these sensitive areas should be incorporated into larger buffer zones or clearings to facilitate access and ongoing management. Specific planting schemes involving historic environment features should be discussed with the Dyfed Archaeological Trust at the planning stage.
- In areas of grazed woodland, grazing regimes and stocking levels should be approved by the Dyfed Archaeological Trust prior to implementation. Similar approval should also be sought prior to significant changes to agricultural regimes.
- Consideration should be given to lessening the visual impact of new planting on historic environment features and historic landscapes.
- Consideration should be given to allowing / maintaining public access to historic environment features in woodland where this is both safe and practical. Specific access and interpretation schemes involving historic environment features should be discussed with the Dyfed Archaeological Trust at the planning stage.
- Ensure contractors and all other workers are aware of the historic environment features and comply with these requirements. They should take appropriate measures to avoid accidental damage.

Mitigation

- Do not plant or re-plant trees within the defined sensitive areas surrounding historic environment features without the prior approval of the Dyfed Archaeological Trust.
- Do not carry out any excavation or erect any new building or structure in the vicinity of historic environment features without the prior approval of the Dyfed Archaeological Trust.
- Do not site new fencing or vehicular tracks within the sensitive areas of historic environment features without the prior approval of the Dyfed Archaeological Trust.
- Do not remove any material from the sensitive areas of historic environment features or deposit spoil or rubbish on them.
- Do not store timber or machinery within the sensitive areas of historic environment features.
- Do not use heavy machinery in the sensitive areas of historic environment features, especially in wet weather.
- Do not harvest or otherwise fell trees within the sensitive areas of historic environment features without prior discussion with the Dyfed Archaeological Trust.
- No intrusive archaeological investigation (such as excavation, field-walking to collect surface finds or metal detecting) should be allowed without the prior approval of the Dyfed Archaeological Trust, to ensure that such work complies with appropriate guidance the *Institute of Field Archaeologists*

Code of Conduct and *Standards and Guidance*, and the *Code of Practice for Responsible Metal Detecting in England and Wales*, 2006.

Proactive management

- Control scrub and naturally regenerating trees within the sensitive areas of historic environment features. Such vegetation should be cut off at ground level with its roots being left in the ground rather than pulled up or dug out. Ensure that machinery does not cause further disturbance.
- Remove any dead or unstable trees from the vicinity of historic environment features, leaving roots to rot in situ. Ensure that machinery does not cause further disturbance.
- Where appropriate, undertake regular brashing of trees within the sensitive areas of historic environment features.
- Remove brash or other dead vegetation from the sensitive areas of historic environment features with care. Ensure that machinery does not cause further disturbance.
- Wherever practicable, repair and reuse original historic environment features, such as boundary walls, rather than replace them. Repairs should be unobtrusive and where possible make use of appropriate traditional materials and methods of construction. Schemes of repair should be discussed with the Dyfed Archaeological Trust prior to implementation.

Legislation and Guidance

- Scheduled Ancient Monuments (SAMs) have statutory protection and consent from Cadw will be required for works to these monuments.
- **Listed buildings** have statutory protection and permission from the Local Planning Authority will be required for some works. Listed status may also apply to buildings and structures within the curtilage of a listed building.
- Areas of **historic parkland** of national importance are included on the Cadw/ICOMOS *Register of Parks and Gardens of Special Historic Interest in Wales*. There are also many non-registered parks of lesser quality but which, nevertheless, form an important component in the historic environment and require appropriate management.
- A number of **historic landscapes** are registered in the Cadw/ICOMOS/CCW *Registers of Outstanding and Special Landscapes of Historic Interest in Wales.*
- The reporting of **archaeological finds** arrising from woodland work must comply with the *Treasure Act, 1996*. Guidance on this and on the reporting of other **portable antiquities** can be found on the Portable Antiquities Scheme website (http://www.finds.org.uk).

Scheduled and listed sites and registered areas are identified as such below.

HISTORIC ENVIRONMENT FEATURES

A search of the regional Historic Environment Record (HER) held by the Dyfed Archaeological Trust has identified the following historic environment features. These are listed and described below and are shown on the accompanying map. Each feature is allocated a unique reference number (a Primary Record Number - PRN) that should be quoted in any correspondence.

Each site listed must be managed in accordance with the General Management Requirements outlined above. Where sites require specific management this is set out below. These Specific Management Requirements are in addition to and (in the case of conflict) take precedence over the General Management Requirements.

PRN 27118 PISTYLL	Post Medieval lime kiln	SN62361674
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Site appears to have survived quarrying operations and stands between the main Pistyll quarry and the large freestanding kilns (PRN 27294). The site was flooded at time of visit (March) and only the top of kiln was visible. P.Sambrook 1993

PRN 27119PISTYLLPost Medieval lime kilnSN62561680

Lime kiln circular diameter 4.2m 1.5m high. The south half of the kiln is cut into a natural (?) bank and the north half is composed of a high earth & stone semi-circular bank. The man-made bank does not touch the natural bank on either side of the kiln rather gaps were left to provide a drawing hole on each side facing E & W evidenced by substantial spoil deposits on both sides of the kiln. The spoil extends some 15m downslope to NW and can be seen in quantity to the NE and in traces due N. Well preserved example. P.Sambrook 1993

PRN 27120 PISTYLL Post Medieval farmstead SN62451674

Completely destroyed with the exception of the gable end wall of one building which stands on the edge of Pistyll Limeworks' quarry. Some of the tracks which led to the farm may be traced at the quarry edge and in adjacent woodland along with one or two stone gateposts. P.Sambrook 1993

PRN 27291	PISTYLL LIME WORKS	Post Medieval quarry	SN622168
		building	

Small stone building - unroofed. measuring 3.0m x 3.3m entrance on west side. P.Sambrook 1993

PRN 27292	PISTYLL LIME WORKS	Post Medieval chimney	SN623167
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Listed Building. Brick-built chimney stack c.20m high. P. Sambrook 1993

Listed Grade II - described by Cadw: "A square brickwork chimney about 20m in height, tapering from about 2m at base to about 1 «m at top. Cornice of about 4 corbelled courses near the top, with reducing courses above. Small arched apertures at base at east and west sides."

PRN 27294 PISTYLL LIME WORKS

Listed Building. A freestanding kiln complex set inside stone built tunnel. Tunnel is c.23m in length x 5m wide x 9m high (to top of arch). Tramway from quarry runs east-west through tunnel two drawing holes are set in each side of tunnel wall all 3.1m wide x 2.5m high with one kiln eye. A fifth drawing hole is seen outside the western end of the tunnel set into the structure on the southern side of the tunnel mouth. This drawing hole is 1.7m high at present and has two kiln eyes. The whole structure is c.23m long x 19m wide (on eastern side) and 24m (on western side) and stands c.12m high (from tramway bed to top of wall). Only one kiln pot is evident on top of the structure at the south-west corner seemingly that of the external kiln diameter 3.7m the others are infilled. Raised bed of a disused tramway passes over the kiln complex. The structure is in reasonably good condition though parts of the western wall are beginning to erode above the tunnel mouth. P.Sambrook 1993

Listed Grade II - described by Cadw: "Unusual design with two facing pairs of limekilns, two to the north and two to the south, about 5m apart, with a full-width bridge connecting them at high level. Axe dressed limestone masonry with brick arches to the working areas. The whole structure is about 25m square and the bridge about 9m high. At low level the railway siding entered the space beneath the bridge on the west side. The kiln working areas and platforms are about 2m above the former railway siding level, down to which there are four narrow concrete staircases. At the west there are remains of a structure which stood at the platform edge each side and covered the siding, and extended out from the kilns structure. The arches over the working areas are semicircular, about 3m span. Two of the drawholes are arched, the others have lintels. The south-west kiln has an additional working arch on the west face of the structure with two corbelled-over drawholes and a brick pier between. Two additional blind, recessed in the south face overlooking the siding. At top level a raised causeway (for the former tramway) crosses the structure north-south, linking it the limestone quarry nearby and also via an embankment to the silica quarry 400m to the south east. One kiln opening is visible, in collapsed condition, about 4m diameter."

PRN 27295 PISTYLL LIME WORKS Post Medieval quarry SN624167

Mostly inaccessible due to flooding. Few remnants of quarrying activity survive one complete tram wagon and the base of another can be seen at quarry mouth as well as fragments of tramline none in situ. P.Sambrook 1993

	PRN 27296	PISTYLL LIME WORKS	Post Medieval tramway	SN623167
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Tramway runs from top of kiln complex of Pistyll Limeworks to upper quarry workings 250m to east on raised bed mostly. Largely overgrown and difficult to follow. P.Sambrook 1993.

PRN 27297	PISTYLL LIME WORKS	Post Medieval quarry	SN623167
		building	

Ruined stone building 3.0m x 3.6m built of stone and brick. Map evidence suggests it might be related to the incline descending to the quarry on its eastern side post 1878. P.Sambrook 1993

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PRN 27298 PISTYLL LIME WORKS Post Medieval tramway SN623167
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Tramway connecting Pistyll Limeworks with silica quarry c.400m to south-east. Track began atop kiln complex at Limeworks and followed a substantial embankment for 2/3 of its length then becoming a gradually deepening cutting as it reached the hillside quarry. This cutting ends c.50m downslope of the main quarry with no apparent link. Difficult terrain wooded and very wet. P.Sambrook 1993

PRN 27303 PISTYLL LIMEWORKS

Post Medieva	l lime kiln	SN625167

SN62521679

Pennanular earthwork? diameter 4.2m. Possibly an earth bank kiln. No spoil evident. P.Sambrook 1993

PRN 27305	PISTYLL LIMEWORKS	Post Medieval lime kiln	SN626169

Pennanular earthwork diameter 3.4m 1.0m high. Lime kiln as evidenced by presence of spoil c.5m to north and small quarrying depressions upslope. P.Sambrook 1993.

PRN 27344	PISTYLL LIMEWORKS	Post Medieval lime kiln	SN625168
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A lime kiln composed of a pennanular earth and stone bank diameter 3.0m height 0.5m. Quarry in limestone outcrop to south-east spoil tip downslope to north-west drawing hole faces north-west. P.Sambrook 1993.

PRN 27345	PISTYLL LIMEWORKS	Post Medieval trackwav
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Former track or tramway running north-east from east edge of Pistyll Quarry. A possible trackway running from the now destroyed Pistyll Farm. It passes close by all the limekilns in the woods to the east of the quarry and may have been constructed or used for the purpose of moving lime produced by the kilns. Indeed it seems to terminate at the easternmost of the kilns. P.Sambrook 1993.

PRN 27497 PISTYLL LIME WORKS AND Post Medieval lime works SN624167 SILICA WORKS

Lime burning and limestone quarrying has been taking place on the site since at least the end of the 18th century - kilns are marked on estate maps in the Cawdor Vaughan collection in Carmarthen Record Office. Thomas (1975 51) considers this to be the oldest quarry operating in Llandybie parish. In the first recorded instance it was operated by David Thomas of Cilyrychen and was in full production in the 1770s. It seems to have fallen out of production for in 1861 Thomas Sheperd Strick and Henry Richard of Brynaman Iron Works were granted the rights to re-open the old quarry behind Pistill Isa House and quarry limestone and red sandstone and to build a kiln or kilns and erect other buildings. (CRO Dynenor 30/16). A spur line from the main-line railway was also constructed. It is not certain when the lime works stopped production. Thomas (1975 53) considers that it was in the last decades of the 19th century. In 1871 John Howells a Swansea millwright obtained the rights to quarry plastic clay and silica sand on Pistyll Mountain on part of Pistill Isa (CRO Dynevor 61/31). These minerals were further exploited in the early 20th century. Penson and Southern of Cilyrchen Lime Works took up an option to develop the site in 1902 (CRO Dynevor 71/16 and 42). They do not seem to have operated on the site for in the same year the rights were re-leased to The Carmarthenshire Silica Company (CRO Dynevor 73/9). The silica deposits did not come up to expectations and in 1913 the Company was having to import silica sand from Mr Dubusson's land via an incline constructed through woods belonging to Lord Dynevor (CRO Dynevor 30/16). The Carmarthenshire Silica Company supplied or many have been a subsidiary of Bynea Steel Co of Llanelli (Thomas 1975 53). According to Thomas the silica works were in full production in 1924 employing about 50 men. They closed in 1927 and did not re-open.

PRN 27697 PISTYLL

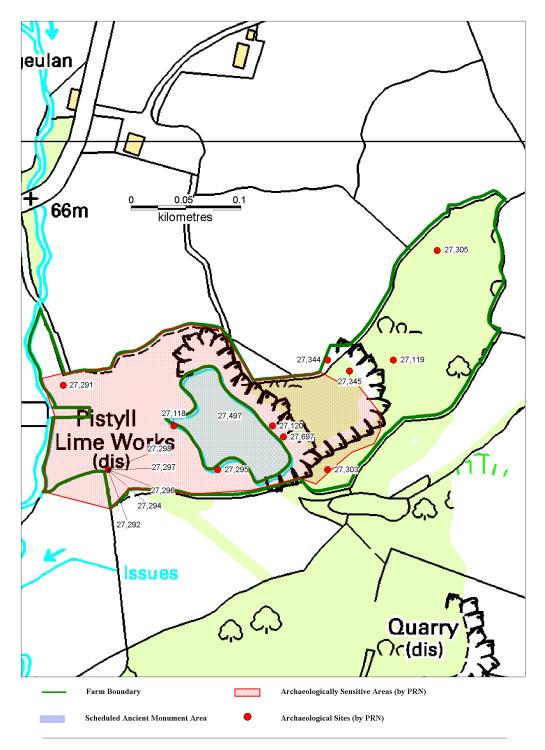
Post Medieval lime kiln SN62461673

Lime kiln identified from the 1st edition Ordnance Survey map of 1898.

Sources consulted:

Historic Environment Record for Carmarthenshire, Ceredigion and Pembrokeshire Ordnance Survey 1878 1st edition 1:2500 Carmarthenshire sheet 41.11 Murphy, K & Sambrook P 1994. Southeast Dyfed Minerals: A survey of the Archaeological Resource Threatened by Mineral Extraction.

Other sites may be known to the landowner and these should be made known to the Dyfed Archaeological Trust in order to update the Regional Historic Environment Record and where necessary amend management advice.



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