Report No: 2015R022



New Hartswell Farm, Herodsfoot, Cornwall Archaeological watching brief



Cornwall Archaeological Unit

New Hartswell Farm, Herodsfoot: wind turbine (2015)

New Hartswell Farm, Herodsfoot, Cornwall

Archaeological watching brief

Client	A. L. Sayers (Holbeton) Ltd.	
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Acknowledgements

This study was commissioned by Ben Venus on behalf of A. L. Sayers (Holbeton) Ltd and carried out by Cornwall Archaeological Unit, Cornwall Council.

The Project Manager was Adam Sharpe. Fieldwork was carried out by the author and Hayley Goacher.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

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Cover illustration

Aerial photograph (2005) (GIS layer), showing the site area.

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Abbreviations

CAU	Cornwall Archaeological Unit	
CIfA	Chartered Institute for Archaeologists	
EH	English Heritage	
HER	Cornwall and the Isles of Scilly Historic Environment Record	
MCO	Monument number in Cornwall HER	
NGR	National Grid Reference	
OD	Ordnance Datum – height above mean sea level at Newlyn	
OS	Ordnance Survey	

1 Summary

Cornwall Archaeological Unit (CAU) was commissioned by Ben Venus of Drakes Renewables on behalf of the owner (Mr G Sayers) to undertake an archaeological watching brief during the construction of a single wind turbine with an associated access track and two cable trenches.

A cultural heritage assessment was carried out by Headland Archaeology (January 2104), which included a summary of the geophysical survey for the site. Following the proposal being granted planning consent (PA13/11706), a Written Scheme of Investigation was produced by CAU (Sharpe, 20/01/2015). Planning permission for the development was granted by Cornwall Council.

The site lies to the west of Herodsfoot and north of scheduled Bury Down hillfort. The associated works are centred at SX1933 6058, while the turbine itself is located at SX19443 60789. The turbine is a 24.6m to hub, 34.2m to tip, 50Kw Endurance wind turbine, and occupies land with extensive views out to the east.

The watching brief did not uncover any significant archaeological remains, despite the potential for prehistoric and later remains to be disturbed within the excavated areas.

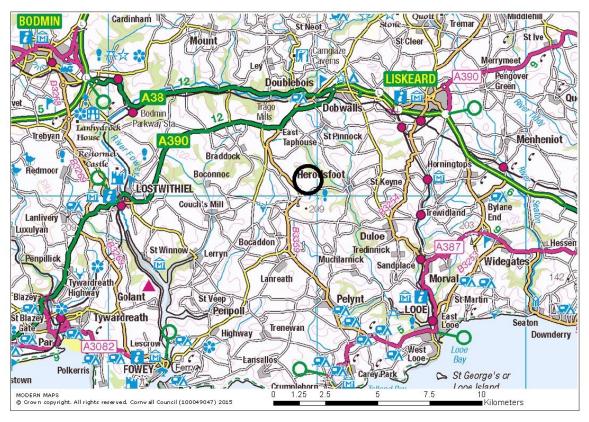


Fig 1 Location map.

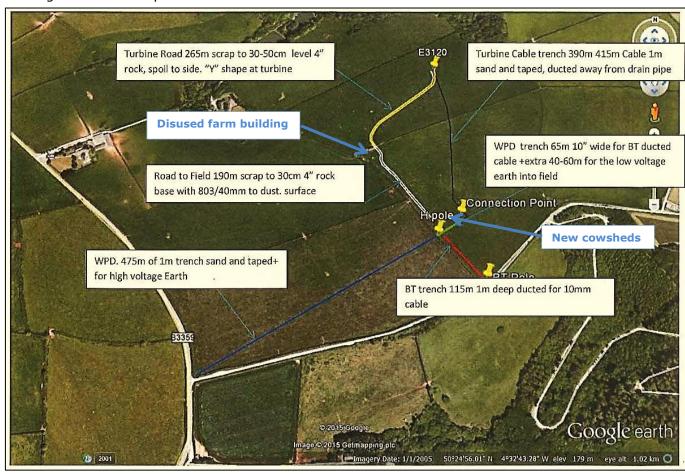


Fig 2 Site extent and works description (as provided by Natural Generation), with additional text in blue.

2 Introduction

2.1 Project background

Project background

Cornwall Archaeological Unit was commissioned by Ben Venus of Drakes Renewables on behalf of the owner (Mr G Sayers) to undertake an archaeological watching brief during the construction of a single wind turbine.

A Written Scheme of Investigation was produced (Sharpe 20/01/2015), following the proposal being granted planning consent (PA13/11706) following a successful appeal to the Planning Inspectorate (Appeal APP/D0840/A/14/2218136), and the production of a cultural heritage assessment by Headland Archaeology (January 2104). This included a summary of the geophysical survey for the site (Mayes 2014).

The site lies to the west of Herodsfoot and to the north of Bury Downs. The associated works are centred at SX1933 6058, while the turbine itself is located at SX19443 60789. The turbine is a 24.6m to hub, 34.2m to tip, 50Kw Endurance wind turbine, and occupies land with particularly long views out towards Dartmoor.

Planning permission for the development was granted by Cornwall Council subject to a number of conditions. Condition 6 reads:

No development shall take place until a programme of archaeological work including a Written Scheme of Investigation has bene submitted to and have been approved in writing by the Local Planning Authority. The scheme shall include an assessment of significance and research questions; and:

- a) The programme and methodology of site investigation and recording
- b) The programme for post investigation assessment
- c) Provision to be made for analysis of the site investigation and recording
- d) Provision to be made for publication and dissemination of the analysis and records of the site investigation
- e) Provision to be made for archive deposition of the analysis and records of the site investigation
- f) Nomination of a competent person, persons, or organisation to undertake the works set out in the written scheme of investigation.

Project extent

The watching brief and this report covers two geotechnical test pits, the footprint of the wind turbine, the access road to the turbine, and two sets of related cable trenching (see figure 2).

2.2 Aims

See WSI (Appendix 1 at the back of this report).

The site specific aims were to:

- Establish the presence/absence of archaeological remains.
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered.
- To identify any artefacts relating to the occupation or use of the site.

The project objective was to produce a report setting out the results of the archaeological watching brief, placing them within their historical and landscape context.

2.3 Methods

All recording work was undertaken according to the Chartered Institute for Archaeologists Standards and Guidance for Archaeological Investigation and Recording.

Staff followed the CIfA Code of Conduct and Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology. The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Fieldwork: watching brief

Fieldwork included:

- The examination of two geotechnical test pits, (dug by machine) at the lower north-western and upper south-eastern corners of the wind turbine footprint.
- The examination of the wind turbine footprint (topsoil stripped by machine using a toothless bucket) down to the level at which archaeological features or layers might be expected to have been revealed (i.e. top of the "natural").
- The examination of the access track running to the turbine from the cowsheds located to the south of the site.
- The examination of the long western cable trench linking the cowsheds to the road (B3359).
- The examination of the shorter southern cable trench, which ran from the cowsheds to the turbine (crossing the brow of the hill).

Notes were made of layers uncovered, digital colour photographs were taken – with a scale when required to record the works, and occasional finds were noted but not retained.

3 Location and setting

The site lies between Liskeard in the east and Lostwithiel to the west, just to the west of Herodsfoot on a hilltop spur. The combined works are centred at SX 1933 6058.

Heights vary across the site from 160m to 180m above sea level. The turbine itself stands on ground approximately 160m above sea level.

The local bedrock is Middle Devonian (Undifferentiated) Mudstone, Siltstone and Sandstone.

Topographically the local landscape is undulating, consisting of rounded hills and intervening coombs and valleys feeding down towards the north and east along a wooded, spring fed tributary of the West Looe River.

The turbine itself stands in a field that drops down towards the north and east.

The site lies within Post-medieval Enclosed Land (see figure 6), and is surrounded by a range of HER identified sites of variable date, character and significance (see figure 7). These range from medieval settlements and field systems to undated cropmarks, and include a prehistoric hillfort in the near vicinity (see below).

4 Designations

The site lies within a landscape designated as the Looe and Seaton Valley Area of Great Landscape Value (see figure 8).

The site is partially surrounded by the Herodsfoot Woods County Wildlife Site (see figure 8).

To the south-south-west of the site lies Scheduled Bury Down hillfort (DCO1246, MCO25125), (see figure 7).

There are no Scheduled Monuments or Listed Buildings within the project area.

There are no Listed Parks and Gardens or Listed Battlefields within the immediate study area.

5 Site history

The wider area

The Historic Landscape Character of the area is recorded as Post-medieval Enclosed Land, indicating that the area was unenclosed downland during the medieval period, but was abutted by medieval farmland and settlements.

It is likely that this area was also largely open downland throughout the prehistoric period, with limited pockets of activity.

The wider 0.5 - 5km area surrounding the turbine location contains a number of sites of all dates and character. Selectively these include:

- Bronze Age barrows, including a group on Braddock Down approximately 3km to the north-west of the site.
- Duloe stone circle 4.84km away, and the Giant's Hedge between 3.45km and 4.84km from the site.
- The National Mapping Programme (NMP) recorded a small cropmark banjoshaped enclosure 219m to the north-east – a possible seasonal feasting site of middle Iron Age date.
- Scheduled Bury Down hillfort (see below) is located 1.37km to the south-west of the site.
- Braddock Down Registered Battlefield (DCO16456).
- A Registered Park and Garden surrounding Grade II* Boconnoc House 4.81km from the site.
- There are many medieval settlements within a couple of kilometres of the site (see figure 7), including Botelet, Pelyne and Foreland to the west-south-west, and Herodshead, Bodrane and Herodsfoot to the east.
- Botelet includes grade II Listed Botelet Cottage (DCO 2018), which stands close to the former Domesday Manor of pre 1066 date.
- A former medieval deer park (MCO 23356), is referred to by Henderson (1935, 162) as a pre 1500AD park associated with Botelot Manor (see above). Today its northern edge (as shown on modern mapping) is less than 300m to the south of the turbine, and only some 200m south of the cable trenches and access track.
- Herodshead lies just 550m to the east and was first recorded in 1327. Its name contains the Cornish elements *bren* 'hill', *hyr* 'long', and *garth* 'enclosure' (Padel 1985, 32, 102, 132). The long enclosure is still visible on mapping.
- There are two boundary cropmark sites of probable medieval date, both identified by the NMP. The closest (MCO 42283) lies 377m west of the turbine and is a component of an 'L' shaped bank within an early area of enclosure. Located 779m to the north-west is a series of banked boundaries (MCO 42326) forming part of a remnant field system.



Fig 3 (Left) Extract from the OS First Edition One Inch Map c1809, showing the site.

Fig 4 (Right) Lanreath parish Tithe Map, c1840, showing the site.

As above and below, the black dot is the turbine, the black line is the access track, the blue dotted line is the low voltage cable trench, and the other dotted line is high voltage.

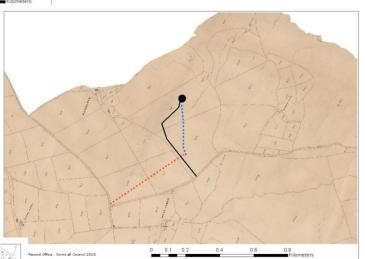
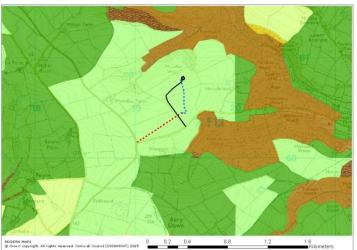


Fig 5 (Left) First Edition of the Ordnance Survey 25 Inch Map, c1907, showing the site.

Fig 6 (Right) Ordnance survey digital map 2014, showing the site and HLC mapping. The site lies within Post medieval Enclosed Land.



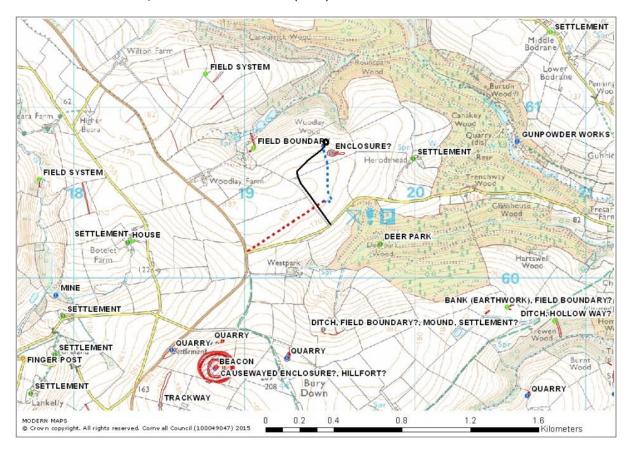


Fig 7 Ordnance Survey digital mapping (2014), showing the site, HER and Scheduled sites in the vicinity.

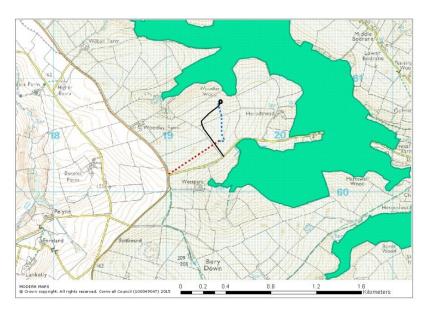


Fig 8 Ordnance Survey digital mapping (2014), showing the site and area designations.

(The AGLV is shown stippled, the County Wildlife Site extent is shown in green)

The site area

The site is likely to have fallen within the territory of Bury Down hillfort during the Iron Age period. It is a nationally rare, small multivallate hillfort and is located 1.37km to the south-south-west of the site. It is a Scheduled Monument (DCO 1246) and is recorded in the HER (as MCO 25125). The HER record refers suggests that a Neolithic causewayed enclosure underlies the hillfort. Both the hillfort and the causewayed camp imply contemporary, outlying activity. The hillfort in particular might suggest the

existence of field boundaries, tracks and sporadic settlement within the surrounding landscape.

As stated above it is likely that the turbine site was largely open downland during the prehistoric period. However, an unenclosed landscape does not equate with an un-used landscape, and ephemeral remains including finds scatters probably exist within the area.

Positioned just 86m to the southeast of the turbine site lies an undated funnel shaped cropmark feature measuring 33m by 25m with a 54m long eastern extension. This is recorded in the HER as Herodshead enclosure (MCO 42284), and has an unknown archaeological significance, though has the appearance of an Iron Age 'banjo enclosure'.

Figures 4 and 5 both show the existence of a now removed field boundary, which would have run north to south across the central portion of the high voltage cable trench. Its removal reflects changes in agricultural practices over the last one hundred years, probably as a result of increasing mechanisation.

Note: The geophysical survey of the turbine site and part of the access route (Mayes 2014) revealed a single north to south, ploughed out linear feature, which was interpreted as a ditched former field boundary. The alignment is not shown on the 1840 Tithe Map (figure 4) or subsequent mapping and could be Medieval (or earlier in date).

The survey also identified a series of parallel running east to west plough marks. These broadly mirror contours across the field and reflect the dominant direction of probable modern (late Post-medieval) ploughing.

6 Archaeological results

The site inventory contains further context detail.

6.1 Geotechnical test pits

Recorded on 05/02/2015.

No significant archaeological features or deposits were encountered.

Test pit 1 was excavated on the north-western downslope corner of the turbine footprint. It measured 2.5m long, by 0.5m wide and had a maximum depth of 1.8m. From top to bottom it contained contexts (1) to (4). No finds.

Test pit 2 was excavated on the south-eastern upslope corner of the turbine footprint. It measured 2.5m long, by 0.5m wide and had a maximum depth of 2.2m.

From top to bottom it contained contexts (1) to (4). No finds.

6.2 Turbine footprint

Recorded on 09/02/2015.

No significant archaeological features or deposits were encountered.

The turbine footprint excavation measured 8.5m² at the surface, narrowing to 6.5m² at the base and went down in excess of 2m in to the hard underlying bedrock.

Contexts (1) to (4) were revealed (as recorded in the two abutting geotechnical test pits above). No plough marks were visible, although the geophysical survey (Mayes 2014) suggested that they exist within the vicinity. The top of the natural was clean and undisturbed.

The topsoil heap was checked for finds. Occasional mussel shell fragments and small pebbles indicating past soil improvement were found.

6.3 Access track

Recorded on 17-19/02/2015.

No significant archaeological features or deposits were encountered.

The temporary access track sweeps round across the top of the hill to the turbine from west-southwest to the east-southeast. It had an approximate 275m length, a 2m width and 0.3m depth. Contexts (1) and (2) only were removed, revealing the top of natural (3), which showed no archaeological disturbance.

The potential boundary indicated by the geophysical survey was not visible running across the stripped surface of (3). This would suggest that either it was a very late feature within contexts (1)/(2), or possibly that it was a natural fissure within the underlying bedrock.

The topsoil was placed along the southern side of the track and was subsequently checked for finds. These included very occasional pieces of modern white china and a small beach pebble. An unworked flint was found at the western end of the track, close to a disused farm building. This assemblage almost certainly represents accidental introductions to the site along with building materials or former track surfacing associated with the building.

The permanent access track runs from the cowsheds up to the disused former farm building on top of the hill. It had an approximate 220m length, 2m width and 0.3m depth. A mixture of topsoil (1) and hard-core (6) were removed. The permanent track runs northwest to southeast and closely follows a boundary along its western side – veering away slightly at its northern end to accommodate the disused building. It follows the line of an already partially surfaced, heavily compacted track which included some redeposited/introduced hard-core material. No features were identified. The finds consisted of occasional pieces of modern white china.

6.4 High voltage cable trench

Recorded on 19/02/2015.

No significant archaeological features or deposits were encountered.

The trench ran from the cowsheds in the north-east to the A3359 road in the south-west. It had a 540m length, 0.4m width and a 1 to 1.2m depth. Some short sections were wider (to allow working space at key pipe/cable junctions. Topsoil (1) in this field was up to 0.3m thick, while the underlying context (2) contained a slightly higher proportion of shillet than that recorded in the turbine field or along the low voltage cable trench.

The topsoil was checked for finds. Occasional small pebbles indicating past soil improvement were recorded, plus very occasional pieces of white china at its southern end suggesting the addition of domestic waste (possibly via clearance of the road ditch). The removed field boundary which ran across the central portion of the trench did not leave any clearly visible remains in the form of either remnant stone or a clearly defined ditch.

6.5 Low voltage cable trench

Recorded on 26/02/2015.

No significant archaeological features or deposits were encountered.

The trench ran south to north linking the cowsheds to the turbine in the north. It had a 400m length, 0.4m width and a 1 to1.2m depth, revealing contexts (1), (2) and (3), plus occasional pockets of (4) where harder bedrock survived.

The trench cut through an extant east to west aligned field boundary – shown on mapping since at least 1840 (see Figs 4 and 5). The boundary is of typical stone faced,

earth filled construction, with bushes planted along its top and the remnants of a slight (0.1m deep) flanking depression on its southern side.

The southern end of the trench looped around the back of the cowsheds, where the section revealed a dense layer of redeposited bedrock (5) dumped during the construction of the modern cowsheds and the levelling of the intervening yard area.

Occasional mussel shell fragments and small pebbles were found in the flanking spoil heap.

7 Summary

Despite the known proximity of an undated, funnel shaped enclosure and the proximity of Bury Down hillfort with its potential outlying features, no significant sub-surface remains have been disturbed by these works. Given the likely open character of the site during the prehistoric and medieval periods, any early features would be likely to have been either small or ephemeral.

The fieldwork did, however, show that soil improvement had taken place historically across all three fields looked at. This included the spreading of beach sand, gravel and probably seaweed. Taken together, these additives had the effect of reducing soil acidity, improving drainage and increasing soil fertility. The practice is not in itself datable, but broadly took place during the medieval and post-medieval periods. Subsurface plough marks cut in to the underlying natural of the turbine field, (as identified by the geophysical survey - see Mayes 2014) run broadly east to west following the southern field boundary. These are almost certainly modern in date and unrelated to earlier soil improvement. It is likely that their depth has removed any ephemeral archaeological remains, if they were originally present.

8 Site inventory

Context No.	Туре	Description	
1	Turf / topsoil	Top soil / turf 0.2 to 0.3m thick. It was recorded as mid reddish brown loamy clay. It contained a small number of small beach pebbles and broken mussel shell pieces indicative of soil improvement (reducing soil acidity and improving drainage). Occasional white china and a single unworked (introduced) flint were also recorded from across the site.	
2	Subsoil	Old plough soil or interface zone between natural and top/plough soil, 0.05 to 0.15m thick. It was recorded as reddish orange to yellowish brown silty clay with occasional angular shillet inclusions.	
3	Top of natural	Pale shattered killas bedrock (in the process of natural decay). This was the layer that the access track was stripped to.	
4	Bedrock	Solid (hard) killas. Recorded at the base of the turbine footprint in the two geotechnical pits and sporadically within the extreme base of the cable trenches.	
5	Redeposited bedrock	Located on the southern side of the cowsheds. In excess of 1m thick layer, underlying new topsoil cover.	



Fig 9 (Left) Geotechnical pit 1 being excavated.

Fig10 (Right) The turbine footprint at the completion of topsoil stripping.



Fig 11 (Left) The temporary access track as it approached the turbine.

Fig 12 (Right) Section photographed at a half way point along the low voltage cable trench.



Fig 12 (Left) The low voltage cable trench, looking north towards the soon to be breached southern boundary of the turbine field.

Fig 13 (Right) The low voltage cable trench as it curved around the cowsheds, showing redeposited context (5).



Fig 15 (Right) One of the wider openings along the high voltage cable trench.



Fig 14 (Left) Looking west along the high voltage cable trench.

9 References

9.1 Primary sources

Thomas Martyn, 1748 Map of Cornwall.

Ordnance Survey, c1809. 1 Inch Map First Edition (licensed digital copy at CAU).

Tithe Map and Apportionment, c1840. Parish of Lanreath (licensed digital copy at CRO).

Ordnance Survey, c1907. 25 Inch Map Second Edition (licensed digital copy at CAU).

Ordnance Survey, 2007. Mastermap Digital Mapping (and GIS layers).

9.2 Publications

Henderson, C., 1935. Essays in Cornish History. Oxford

Mayes S., 2014. Geophysical Survey. In Richards, J., 2014. New Hartswell Farm, Herodsfoot, Cornwall: Updated Cultural Heritage Assessment. CC

Padel, O., 1985. *Cornish Place-name Elements.* English Place-name Society: Nottingham

Richards, J., 2014. New Hartswell Farm, Herodsfoot, Cornwall: Updated Cultural Heritage Assessment. CC

10 Project archive

The CAU project number is 146469

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit, Cornwall Council, Fal Building, County Hall, Treyew Road, Truro, TR1 3AY.

English Heritage/ADS OASIS online reference: cornwall2-205787

Appendix 1: Written Scheme of Investigation

Cornwall Archaeological Unit Cornwall Council



New Hartswell Farm, Herodsfoot: Written Scheme of Investigation for archaeological watching brief

Client: A.L.Sayers (Holbeton) Ltd.

Client contact: Ben Venus
Client tel: 01582 712326

Client email: ben@drakesrenewables.com

Project background

CAU were requested by Ben Venus of Drakes Renewables to provide a cost schedule and method statement for undertaking an archaeological watching brief during the construction of a 24.6m to hub, 34.2m to tip 50Kw Endurance wind turbine on land to the west of Herodsfoot and the north of Bury Downs at SX 19375 60650 at a height of 170m OD. The proposal was granted planning consent (PA13/11706) following a successful appeal to the Planning Inspectorate (Appeal APP/D0840/A/14/2218136). The application site name is New Hartswell Farm, Herodsfoot, Liskeard, Cornwall PL14 4RA.

A cultural heritage assessment prepared by Headland Archaeology dated January 2104 was downloaded from the Cornwall Council planning portal. This included a summary of a geophysical survey for the proposal site.

Planning permission for the development has been granted by Cornwall Council subject to a number of conditions. Condition 6 reads:

No development shall take place until a programme of archaeological work including a Written Scheme of Investigation has bene submitted to and have been approved in writing by the Local Planning Authority. The scheme shall include an assessment of significance and research questions; and:

- q) The programme and methodology of site investigation and recording
- h) The programme for post investigation assessment
- i) Provision to be made for analysis of the site investigation and recording
- j) Provision to be made for publication and dissemination of the analysis and records of the site investigation
- k) Provision to be made for archive deposition of the analysis and records of the site investigation
- I) Nomination of a competent person, persons, or organisation to undertake the works set out in the written scheme of investigation.

Site history

The proposed wind turbine is to be sited on a hilltop location on a spur just to the west of the valley of the West Looe River to the east of Herodsfoot, the northern, eastern and southern slopes of the spur being densely wooded. The Historic Landscape Character of the area within which the turbine is proposed is recorded as Recently Enclosed Land (Farmland post medieval), indicating that this area was unenclosed downland during the medieval period, though this relatively small area of open land was abutted by farms at this time. Given its topography, it is likely that this area was also open downland during prehistory. During the Iron Age, this site lay close to the Scheduled Bury Down hillfort 1.37km to the south-south-west, whilst the National

Mapping Programme (NMP) recorded a small cropmark banjo-shaped enclosure 219m to the north-east of the proposed turbine site – such features are considered to be of middle Iron Age date, and were possibly used as seasonal feasting sites. A further small (undated) enclosure was recorded as a cropmark 70m from the turbine location. The site also lies relatively close to a group of Bronze Age barrows, including a group on Braddock Down. Braddock Down is the site of a Registered Battlefield. Duloe stone circle is 4.84km away from the site, whilst the Giant's Hedge is between 3.45km and 4.84km from the site. The Registered Park and Garden surrounding the Grade II* Boconnoc House is 4.81km from the site.

The geophysical survey of the turbine site and the access route to it revealed a single ploughed out linear feature and evidence for cultivation activity.

Project extent

The watching brief will cover the footprint of the wind turbine, any access road to the turbine, any temporary compound/lay-down area, the site of any related sub-station, and all associated cable trenching.

Aims and objectives

No specific brief has been produced which covers the aims and objectives of this watching brief, though it has been guided by conditions 6 of the grant of Planning Permission for the wind turbine. This WSI will need to be approved in writing by Mr. Phil Copleston, Senior Development Officer (Historic Environment), Cornwall Council.

The site specific aims are to:

- Establish the presence/absence of archaeological remains.
- Determine the extent, condition, nature, character, date and significance of any archaeological remains encountered.
- To establish the nature of the activity on the site.
- To identify any artefacts relating to the occupation or use of the site.

To provide further information on the archaeology of the landscape to the north of Bury Down from any archaeological remains encountered.

The project objective is produce a report setting out the results of the archaeological watching brief and placing them in their historical and landscape context.

Working methods

All recording work will be undertaken according to the Chartered Institute for Archaeologists Standards and Guidance for Archaeological Investigation and Recording. Staff will follow the CIfA Code of Conduct and Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology. The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

Fieldwork: watching brief

The soil stripping will be carried out under archaeological supervision using a machine fitted with a toothless bucket. The soil will be stripped cleanly to a level at which archaeological features or layers can be expected to be revealed (i.e. top of the "natural"). **Machines will not run over the stripped area until the archaeological works are complete**. The area will then be inspected by an archaeologist and any archaeological features or layers exposed in the stripped area will be carefully excavated by hand and archaeologically recorded by written description, plan and section and photographic record as appropriate by an HE Projects archaeologist.

During the archaeological recording the archaeologist will identify and record any archaeological features that are revealed in the stripped area; the level of recording will be appropriate to the character/importance of the archaeological remains.

If complex and/or significant archaeological deposits are encountered then the archaeological requirements should be reviewed by the client, the Senior Development Officer (Archaeology) and CAU. In the event that remains cannot be preserved *in situ* then full-scale excavation may be required. A contingency should be allowed to record

any significant archaeological remains which are uncovered during the stripping. The significance of the remains should be agreed between the client, the Senior Development Officer (Archaeology) and CAU.

Where necessary the detailed archaeological recording may include:

- Excavation of archaeological features exposed in the stripped area and plotting them onto a base map.
- Production of plans and section drawings of the excavated features and recording of features using a continuous numbering system.
- Retrieval of artefacts.

Recording - general

Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the Ordnance Survey Landline (electronic) map; all drawings will include standard information: site details, personnel, date, scale, north-point.

All features and finds will be accurately located at an appropriate scale. Sections will normally be drawn at 1:10 and plans at 1:20.

All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.

Photography: scaled monochrome photography will be used as the main record medium, with colour digital images used more selectively and for illustrative purposes. This will include both general and site specific photographs. Photographs should have a scale and detailed ones should include a north arrow.

Drawings and photographs will be recorded in a register giving details of feature number and location.

Sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within significant archaeological features (ditches and pits, etc.) will be sampled for environmental evidence and dating material. In the event that significant organic remains are encountered, advice may be needed from Vanessa Straker (Regional Advisor for Archaeological Science).

If human remains are discovered on the site the Senior Development Officer (Archaeology) and the Ministry of Justice will be informed. All recording will conform to best practice and legal requirements.

If human remains are uncovered, which require excavation, they will be excavated with due reverence. The site will be adequately screened from public view. Once excavated, human remains must not be exposed to public view.

If human remains are not to be removed their physical security will be ensured, by back filling as soon as possible after recording.

Treatment of finds

The archaeological fieldwork may produce artefactual material.

All finds in significant stratified contexts predating 1800 AD (e.g., settlement features) should be collected by context and described. Post medieval or modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.

All finds will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier.

Fieldwork: photographic recording

To include:

- 1. Black and white photographs using a 35mm camera on fine grain archive quality film will be used where significant archaeological features are uncovered.
- 2. Colour photographs taken with a digital camera (with a resolution of 8MP or higher).

The photo record will comprise:

- General views
- · Examples of structural and architectural detail

Methodology for the archive standard photography is set out as follows:

- Photographs of details will be taken with lenses of appropriate focal length
- A tripod will be used to take advantage of natural light and slower exposures
- Difficulties of back-lighting will be dealt with where necessary by balancing the lighting by the use of flash
- A metric scale will be included in all views, except where health and safety considerations make this impractical

Creation of site archive

To include:

- Archiving of black and white photographs to HER standards
- Digital colour photographs (stored according to HER guidelines and copies of images made available to the client)
- A detailed site/building description
- Preparation of finished drawings
- Completion of the English Heritage/ADS OASIS online archive index

Archive report

A written report will include:

- Summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Designations
- Site history
- Archaeological results
- Chronology/dating evidence
- Significance
- Conclusions
- References
- Project archive index
- Supporting illustrations: location map, historic maps, plans, elevations/sections, photographs

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be held in the Cornwall HER. Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

Assessment/analysis

In the event that significant archaeological remains are uncovered, the stratigraphic data and artefactual material will be assessed to establish whether further analyses and

reporting are appropriate. The outline of the final report, and the work required to produce it will be determined in an updated project design.

In the event of significant remains being recovered (e.g. prehistoric or medieval artefacts) it may be appropriate to:

- Consult with the Senior Development Officer (Archaeology) over the requirements for assessment, analysis and reporting.
- Liaise with specialists (e.g. artefacts, material suitable for scientific dating) to arrange for assessment of the potential for further analysis and reporting.
- Arrange for specialist analyses, where appropriate.

Final publication

In the event of significant archaeological remains being recorded the scope and final form of the report will be reviewed; for example in addition to an archive report the results should be published in an academic journal (e.g. *Cornish Archaeology*).

Archive deposition

An index to the site archive will be created and the archive contents prepared for long term storage, in accordance with CAU standards.

The archiving will comprise the following:

- 1. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box.
- 2. A2 drawn archive storage (plastic wallets for the annotated record drawings).
- 3. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.
- 4. Digital data will be stored on the Cornwall Council network which is regularly and frequently backed up.

CAU uses the following file formats for stored digital data:

DOCX Word processed documents

XLSX Spreadsheets

PDF Exports of completed documents/reports/graphics

JPG Site graphics and scanned information

DNG or TIF Digital photographs

DWG AutoCAD drawings, measured surveys

MXD ArcView GIS (electronic mapping) data

AI Adobe Illustrator graphics

Timetable

The study is anticipated to be commenced during late winter/early spring 2015. CAU will require at least two weeks' notice before commencement of work, in order to allocate field staff and arrange other logistics.

The archive report will be completed within 3 months of the end of the fieldwork. The deposition of the archive will be completed within 3 months of the completion of the archive report.

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by the Senior Development Officer (Historic Environment). Where the SDOHE is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected.

- 1. The SDOHE will monitor the work and should be kept regularly informed of progress.
- 2. Notification of the start of work shall be given preferably in writing to the SDOHE at least one week in advance of its commencement.
- 3. Any variations to the WSI will be agreed with the SDOHE, in writing, prior to them being carried out.
- 4. If significant detail is discovered, all works must cease and a meeting convened with the client and the SDOHE to discuss the most appropriate way forward.

Monitoring points during the study will include:

- Approval of the WSI
- Completion of fieldwork
- Completion of archive report
- Deposition of the archive

References

CqMs Consulting Ltd. 2014, Specification for an archaeological watching brief

English Heritage, 2006. *Understanding Historic Buildings: A guide to good recording practice*. English Heritage, Swindon

English Heritage, 2007. *Understanding the Archaeology of Landscapes: A guide to good recording practice.* English Heritage, Swindon

English Heritage, 2014. (Draft) Guidance note on Digital Image Capture and File Storage. English Heritage, Swindon

Cornwall Archaeological Unit

Cornwall Archaeological Unit is part of Cornwall Council. CAU employs 20 project staff with a broad range of expertise, undertaking around 120 projects each year.

CAU is committed to conserving and enhancing the distinctiveness of the historic environment and heritage of Cornwall and the Isles of Scilly by providing clients with a number of services including:

- Conservation works to sites and monuments
- Conservation surveys and management plans
- Historic landscape characterisation
- Town surveys for conservation and regeneration
- Historic building surveys and analysis
- Maritime and coastal zone assessments
- Air photo mapping
- Excavations and watching briefs
- Assessments and evaluations
- Post-excavation analysis and publication
- Outreach: exhibitions, publication, presentations

Standards



CAU is a Registered Organisation with the Chartered Institute for Archaeologists and follows their Standards and Code of Conduct.

http://www.archaeologists.net/codes/ifa

As part of Cornwall Council, CAU has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare) and Investors in People.

Terms and conditions

Contract

CAU is part of Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

The views and recommendations expressed will be those of CAU and will be presented in good faith on the basis of professional judgement and on information currently available.

Project staff

The project will be managed by a nominated Archaeology Projects Officer who will:

- Discuss and agree the detailed objectives and programme of each stage of the project with the client and the field officers, including arrangements for health and safety.
- Monitor progress and results for each stage.
- Edit the project report.
- Liaise with the client regarding the budget and related issues.

Work will be carried out by CAU field staff, with assistance from qualified specialists and sub-contractors where appropriate.

Report distribution

Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres.

A digital copy of the report, illustrations and any other files will be held in the Cornwall HER and also supplied to the client on CD or other suitable media.

Copyright

Copyright of all material gathered as a result of the project will be reserved to Cornwall Archaeological Unit, Cornwall Council. Existing copyrights of external sources will be acknowledged where required.

Use of the material will be granted to the client.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.

CAU will ensure that all information arising from the project shall be held in strict confidence to the extent permitted under the Act. However, the Act permits information to be released under a public right of access (a "Request"). If such a Request is received CAU may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

CAU follows Cornwall Council's Statement of Safety Policy.

Prior to carrying out on-site work CAU will carry out a Risk Assessment.

Insurance

CAU is covered by Cornwall Council's Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence insurance with a policy value of £10m.

Adam Sharpe BA MCIfA Archaeology Projects Officer 20 January 2015

Cornwall Archaeological Unit

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