



Tregear wind turbine, Ladock, Cornwall

Archaeological Assessment



Historic Environment Projects

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Archaeological Assessment

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The Project Manager was Andy Jones.

The views and recommendations expressed in this report are those of Historic Environment Projects and are presented in good faith on the basis of professional judgement and on information currently available.

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Cover illustration

Aerial photograph (taken in 2000) showing the project area.

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Abbreviations

EH	English Heritage
HER	Cornwall and the Isles of Scilly Historic Environment Record
HE	Historic Environment, Cornwall Council
NGR	National Grid Reference
OS	Ordnance Survey
PRN	Primary Record Number in Cornwall HER

Summary

This report presents the results of an archaeological assessment for a single wind turbine, access road and electrical cable trench, to be located to the west of Ladock at Tregear Farm, west of Tregear settlement.

The project was carried out by Historic Environment Projects, Cornwall Council, for Mr R Stone. This report is the result a desk-top study and a walk-over survey. It identifies and evaluates the archaeological resource in the study area, provides initial guidance on potential impacts and recommends further archaeological work. The site lies near to the Scheduled monument of Tregear Round.

The historic character of the land within which the site is located has been classified as Anciently Enclosed Land and Recently Enclosed Land. Twenty sites have been identified, Sites 10 to 19 will all be directly or physically impacted upon to a minimal extent given the likely width of the cable trench. These are all existing or removed field boundaries, of local importance. Sites 2 to 9 are in the vicinity and provide a local context, but are not directly affected and will be largely unaffected in terms of visual impact. Site 1 is the Scheduled enclosure or round site, located 210m to the west (with boundary Site 20 running across the top of its eastern edge). There will be a visual impact upon Site 1 as a result of the proposed development, but due to its ongoing denudation through ploughing and the fact that boundary Site 20 separates the development from the majority of the round this is not considered to be a substantially negative impact. Another single turbine is visible from the round, but this is not considered to be obtrusive.

Historic Landscape Character analysis indicates the potential for additional, as yet unidentified archaeological remains to exist within the immediate vicinity. There is also a strong possibility for features related to the round to extend in to the area of the site works.

A series of recommendations have been made. These include a watching brief on the wind turbine footprint and the construction of the access road, and depending upon its width archaeological recording and/or finds retrieval from the cable trench after its excavation, but prior to the trench being backfilled. Full excavation is recommended in the case of unexpected and significant remains being revealed, unless works can be shifted to avoid them.

1 Introduction

1.1 Project background

The Projects team of Historic Environment, Cornwall Council (HE, CC), was commissioned by Mr Richard Stone to carry out an archaeological assessment of a proposed single wind turbine, access road and underground cable trench at Tregear, which is located to the west of Ladock (Fig 1). The proposed wind turbine foundations will measure 6m by 6m by 1.5m deep, the access route will be 130m long by 2.5m wide by 0.5m deep, and the cable trench will be 800m long, 1m deep and 0.3m wide (Fig 5).

The proposed development lies within both Anciently Enclosed Land and Recently Enclosed Land (Countryside Commission 1996), and is located 210m to the east of Tregear round an enclosed prehistoric or Romano-British settlement site (Fig 6), which is a Scheduled Monument (SAM32950). It is positioned within land associated with the medieval settlement of Tregear. Given the possible sensitivity of the turbine's setting upon a Scheduled monument and potential for buried archaeology to be impacted upon, Dan Ratcliffe (Historic Environment Planning Advise Officer, CC) produced a brief for an archaeological assessment. A project design outlining the methodology for the assessment was produced by HE projects, which was agreed with the client (see appendices).

1.2 Aims

The aims of this assessment were:

- To identify and describe the archaeological resource within the development area.
- Draw together the historical and archaeological information about the site.
- Review and analyse historic map evidence for the site.
- Apply recent draft EH guidance on the assessment of the setting of Heritage Assets.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposal.
- Identify the construction, use and 'end of life' impacts of the current proposal on the significance of the setting of the monument.
- To assess the impact of the proposal on the importance and integrity of the resource.
- To assess the impact of the proposal in the setting of significant assets beyond the proposal area.
- To identify ways of minimising the impact upon the archaeological resource.
- To make recommendations for archaeological recording during the development and construction of the development.

1.3 Methods

This assessment has consisted of the following:

- Desk top study; walkover of the area; production of an assessment report.

1.3.1 Desk top study

This involved inspection of the following sources, the plotting of archaeological and historic information onto base maps, and the initial preparation of a sites gazetteer:

- Historic Buildings, Sites and Monuments Record (including secondary sources in the HE library) were consulted.
- Historic Mapping was consulted. This included the 1809 First Edition OS map, the 1840 Tithe Map, and the 1880 and 1907 OS maps.
- The Structure Plan was consulted for historic designations, for example World Heritage site, Conservation Areas, Areas of Great Historic Value, etc.

1.3.2 Walk-over survey

Archaeological fieldwork comprised a walk-over survey of the site using a composite base map derived from the desk based study. An assessment of the impact of the proposed development, (as set out in English Heritage's recent consultation draft guidance on the setting of heritage assets) was carried out.

Preparation for the walk-over included:

- Preparation of base maps with known sites.
- Liaison to arrange access to the site.
- Risk assessment (carried out with project manager).

The walk-over survey achieved the following:

- Description of the site.
- Assessment of the impact that the development will have on adjacent designated heritage assets.
- The identification of areas that would benefit from further stages of archaeological investigation.

1.3.3 Assessment report

The results from the desk top study and the walkover survey are presented here as an archaeological assessment report.

2 Location and setting

The project area is located between Ladock (located 3.5km to the east) and Trispen (2.5km to the west), at SW 8655 5033 (Fig 1). The site is positioned within a triangular field bordered by a lane to the north, the Parish boundary between Ladock and St Erme to the west and by a curvilinear field boundary in existence since at least 1809. The Scheduled enclosure (Site 1) is shown on the 1809 OS map as being a substantial earthwork (Fig. 2), and it seems to have been located within a large open field at the time of the 1840 Tithe Map (Fig 3). However, by the time of the 1908 OS map it had been enclosed within the current field system and bisected by a field boundary (Fig 4).

Topographically the study area drops from north-west to south-east, with the site itself standing close to the top of the hill at 95m above sea level, at the western end of a broad valley running down to Kestle – east-south-east of the site. The underlying bedrock consists of mudstone and siltstone of the Gramscatho Beds. Soils are of the Denbigh 2 type – primarily well drained loam over shale (GIS bedrock geology and soils layers). The site and its surroundings predominantly consist of ploughed fields (see cover photograph), interspersed with small scale settlement, both of which have largely medieval origins. The fields with the turbine site and site 1 the Scheduled round are currently covered by crops (Figs 7 and 8).

3 Designations, Planning Policy and Guidance

3.1 Scheduled Monument

Scheduled Monuments have Statutory Protection under the Ancient Monuments and Archaeological Areas Act 1979. These are sites that have been identified by English Heritage, the Government's archaeological advisory body, as being of national importance, and are included in the County Lists maintained by the Secretary of State for Culture, Media and Sport. A schedule has been kept since 1882 of monuments whose preservation is given priority over other land uses. The current legislation, the Ancient Monuments and Archaeological Areas Act 1979, supports a formal system of Scheduled Monument Consent for any work to a designated monument.

Located 210m to the immediate west of the proposed wind turbine site is Scheduled Monument DCO1078 (Site 1), an enclosed settlement of Iron Age or Romano-British date known as Tregear Round, (HBSMR number MCO8040) (Fig 5).

The setting of Scheduled Monuments is a material consideration in the planning process. English Heritage have been contacted and Dan Ratcliffe (Historic Environment Planning Advise Officer, CC) responded by the production of an archaeological brief (section 11.2).

3.2 Listed Buildings

When a building is listed, it is recognized as being of special architectural or historical interest or both, and its details become part of a public record. Most significantly, the building is immediately protected by law. Listed buildings are graded to show their relative importance: Grade I, Grade II*, and Grade II (which are of special interest, warranting every effort to preserve them).

There are two Listed Buildings located just over 400m to the east-north-east of the site at Tregear. Both are downslope of the proposed wind turbine site, and both are grade II Listed. The probable pre 18th century northern building - Tregear (North) is Listed Building number DCO4070. The 18th century southern building - Tregear (South) is Listed Building number DCO4535 (Sites 2 and 3).

It is understood that the proposed electrical cable trench will swing round to the north of Tregear, and that the Tregear Listed Buildings will not be materially affected.

3.3 Planning Policy Statement 5 (PPS5), 'Planning for the Historic Environment'

3.3.1 Planning Policy Statement 5

The English Heritage and DCMS (Department for Culture, Media and Sport) document 'PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide' provides guidance on PPS5 and its application. (see *The setting of heritage assets: English Heritage guidance (2010). Consultation draft.* (<http://www.english-heritage.org.uk/content/publications/docs/heritage-assets-draft.pdf>)

Planning Policy Statement 5 '*... sets out planning policies on the conservation of the historic environment, and should be read alongside other relevant statements of national planning.* It guides planning / development and the protection of all 'heritage assets'. 'Heritage Assets' include '*... A building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions.*'

The policy itself is divided into a series of sub-policies; HE1 to HE12 – each deals with either grouped 'assets' or different stages in planning and development. In rapid summary these policies range from initial development proposals (HE1 – HE4), through monitoring, assessing and evaluating an area (HE5 - HE6), to the application for

consent (HE6 – HE9), consideration of setting and impact (HE9 and HE10) and finally the construction and completion of a development proposal (HE11- HE12).

3.3.2 Policy HE9

HE9.1 - There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting.

HE9.2 - Where the application will lead to substantial harm to or total loss of significance local planning authorities should refuse consent unless it can be demonstrated that: (i) the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that harm or loss....

HE9.6 - There are many heritage assets with archaeological interest that are not currently designated as scheduled monuments, but which are demonstrably of equivalent significance....The absence of designation for such heritage assets does not indicate lower significance and they should be considered subject to the policies in HE9.1 to HE9.4 and HE10.

3.3.3 Policy HE10

HE10.1 - When considering applications for developments that affect the setting of a heritage asset, local planning authorities should treat favourably applications that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset. When considering applications that do not do this, local planning authorities should weigh any such harm against the wider benefits of the application....

113 - Setting is the surroundings in which an asset is experienced. All heritage assets have a setting, irrespective of the form in which they survive and whether they are designated or not. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance, or may be neutral.

114 - The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration; by spatial associations; and, by our understanding of the historic relationship between places. For example, buildings that are in close proximity but not visible from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each. They would be considered to be within one another's setting.'

115 - Setting will, therefore, generally be more extensive than curtilage, and its perceived extent may change as an asset and its surroundings evolve or as understanding of the asset improves.

116 - The setting of a heritage asset can enhance its significance whether or not it was designed to do so. The formal parkland around a country house and the fortuitously developed multi-period townscape around a medieval church may both contribute to the significance.

117 - The contribution that setting makes to the significance does not depend on there being public rights or an ability to access or experience that setting. This will vary over time and according to circumstance. Nevertheless,

proper evaluation of the effect of change within the setting of a heritage asset will usually need to consider the implications, if any, for public appreciation of its significance.

3.4 Wind Energy and the Historic Environment: English Heritage

The full English Heritage report for Wind Energy and the Historic Environment can be found at www.helm.org.uk.

The document refers to 'Direct Physical Impacts' and 'Indirect Impacts', which relate to 'Setting and Visual Amenity' (with particular reference to visual dominance, scale, intervisibility, vistas and sight-lines, movement, sound or light effects and un-altered settings – page 7 and 8).

In terms of the wider landscape the document states that regard should be given to both the immediate landscape impact and those related to secondary development infrastructure – cable trenches, overhead wires, electrical cabinets etc. It also states that the visual impact of turbines is reversible (page 9).

At the back of this document is a 'Best practice Check List' (page 12), which directly refers to Wind Energy and the Historic Environment.

3.5 Cornwall Structure Plan 2004

The Cornwall Structure Plan (Policy 2: Character Areas, Design and Environmental Protection) produced by Cornwall County Council (now Cornwall Council), provides an overview and framework for environmental policy in Cornwall. Paragraph 29 states *'Development must be compatible with the conservation of Cornwall's historic and natural heritage. This is not just confined to designated areas. Local features are an important part of local character and all too often these elements are lost by gradual attrition. The protection, conservation, interpretation and stewardship of the environment for future generations is an important element in sustainable development and one in which local authorities must play a vital role through example and encouragement.'*

Local Plans should define Character Areas to inform planning decisions taking into account Regional and County-wide landscape assessments. The conservation and enhancement of sites, areas, or interests, of recognised international or national importance for their landscape, nature conservation, archaeological or historic importance, including the proposed World Heritage Site, should be given priority in the consideration of development proposals.

3.6 Hedgerow Regulations

Within the current legislation (Hedgerow Regulations 1997) the following extract explains the criteria used to assess the archaeological and historical importance of hedgerows:

For the purposes of Section 97 (hedgerows) of the Environment Act 1995 and these Regulations, a hedgerow is "important" if it, or the hedgerow of which it is a stretch:

- (a) has existed for 30 years or more; and
- (b) satisfies at least one of the criteria listed in Part II of Schedule 1.

Part II of Schedule 1 provides the following 'historic' criteria:

1. The hedgerow marks the boundary, or part of the boundary, of at least one historic parish or township; and for this purpose "historic" means existing before 1850.
2. The hedgerow incorporates an archaeological feature which is included in the schedule of monuments compiled by the Secretary of State under section 1 (schedule of monuments) of the Ancient Monuments and Archaeological Areas Act 1979; or

recorded at the relevant date in a Sites and Monuments Record.

3. The hedgerow is situated wholly or partly within an archaeological site included or recorded as mentioned in paragraph 2 or on land adjacent to and associated with such a site; and is associated with any monument or feature on that site.

4. The hedgerow marks the boundary of a pre-1600 AD estate or manor recorded at the relevant date in a Sites and Monuments Record or in a document held at that date at a Record Office; or is visibly related to any building or other feature of such an estate or manor.

5. The hedgerow is recorded in a document held at the relevant date at a Record Office as an integral part of a field system pre-dating the Enclosure Acts; or is part of, or visibly related to, any building or other feature associated with such a system, and that system is substantially complete; or is of a pattern which is recorded in a document prepared before the relevant date by a local planning authority, within the meaning of the 1990 Act, for the purposes of development control within the authority's area, as a key landscape characteristic.

NOTE: Boundary features are the most abundant archaeological feature to be found in Cornwall. Whilst some may be of recent origin, many have older origins and are thus of considerable importance in telling the story of the development of agriculture in the rural landscape, their layout, inter-relationships and phasing allowing sequences of land clearance and enclosure for agriculture to be read. They are thus important not only visually (as landscape features), but also archaeologically. Hedgerows affected by the Hedgerow Regulations are boundary Sites 10, 11, 13, 14, 15 and 16.

4 Landscape character and history

In 1996 Cornwall's historic landscape character (HLC) was classified as a series of types, each the result of a different set of historical influences, and each highly distinctive (Cornwall County Council 1996). These different types are shown as layers on the GIS. The eastern end of the study area is located within 'Anciently Enclosed Land' of 'Medieval Farmland' Type. The turbine field itself is located within Recently Enclosed Land, to the south of today's lane.

Historic Landscape Characterisation is one of the major factors which inform decisions relating to archaeology made by planning advice archaeologists in Cornwall, and landscape characterisation would be expected to be taken in to account.

4.1 Medieval Farmland

This is Cornwall's agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Most of the land was cleared and improved in later prehistory but was re-organised in the medieval period into extensive 'strip' field systems worked by small groups of farmers.

Field boundaries vary: most have medieval or earlier origins but present forms are the products of several hundreds of years of refurbishment and repair, stripping down and rebuilding. Most are broadly curvilinear earth and stone banks with quarry ditches along one or both sides and a stone-facing, particularly at vulnerable points like gateways. Most of the boundaries from this period were built to be stock-proof (with particular reference to long standing parish boundaries as between St Erme and Ladock- just to the west of the site). Most are covered with dense and varied vegetation. Medieval farmland tends to be relatively sheltered, not too steep and not too poorly drained, but can extend onto the edges of high downs. Networks of winding lanes and roads, often deeply cut by the passage of people, animals and vehicles over centuries or thousands of years, run through it, connecting farming settlements for example, Tregear, Ladock and Trispen.

Two or three thousand years of agriculture has taken its toll on earlier features. The main early survivors visible at the surface tend to be the relatively robust Bronze Age barrows and Iron Age/Romano-British rounds (farming hamlets enclosed by banks and ditches). However, buried archaeological features from prehistoric, medieval and post-medieval periods, including settlements, fields, ceremonial and ritual monuments and industrial remains can be expected virtually anywhere in this landscape Type.

Many archaeological sites, such as rounds survive as ploughed out or partially extant earthworks. There may have been as many unenclosed or 'open' prehistoric and Romano-British settlements as there were rounds, but open settlements, with houses more loosely scattered through fields tend to be less easy to detect. However, increasing numbers of earlier prehistoric houses, fields and ceremonial/ritual monuments are being discovered within Cornwall's Medieval Farmland as archaeological fieldwork in the form of geophysical survey, watching briefs, and trial excavations take place. For example, at Scarcewater, in an area characterised as AEL, but with no previously known archaeological sites a wealth of sites of all dates were found (Jones and Taylor, 2010). Penhale Round, near Indian Queens for example was found through geophysical survey and subsequent watching briefs and excavations to be surrounded by activity of all dates. Similar below ground remains might be expected to survive in the area around the Tregear Round.

4.2 Recently Enclosed Land

Recently Enclosed Land (REL) is land that was enclosed in the 17th, 18th and 19th centuries, usually from medieval commons on upland rough ground, or summer grazing land, which tends to be exposed and is often poorly drained. Fields are characterised by straight sides, as are most roads, while boundaries are often of dry stone construction (particularly during the later period) and their vegetation is less mature or varied than that found in AEL.

Settlements in REL tend to be single farms or small holdings, rather than farming hamlets. They are more frequent in number, but smaller in size. Fields tend to increase in size with distance from the farmstead. Field shapes and patterns are characteristically straight sided and angular, often not following natural contours.

There are considerably more extant prehistoric archaeological sites in this landscape zone than in AEL, due in part to a lack of long term ground clearance etc. Some sites will have been destroyed, but in general more sites survive in a better condition. This is reflected in the potentially well preserved remains of Tregear Round (Site 1), which is clearly visible as a crop-mark from the air (see cover photo and Fig 7) but which does not appear visually to survive well on the ground. Contemporary open settlements, tracks and boundaries may well surround the general vicinity of Tregear Round.

The large triangular field in which the proposed wind turbine, access road and western half of the electrical cable trench will be located, lies within land identified by the 1840 Tithe Apportions as 'Round Down'. The name 'Down', reflects the former presence of rough ground or downland, which would have been used by nearby medieval settlements, including Tregear, for rough grazing and furze harvesting (for fuel) etc. A deeply cut track or hollow way – Site 12 ran diagonally across this former pocket of open downland from Tregear westwards (Fig 2), and was probably used to move livestock up on to the downs.

5 Assessment results

5.1 Inventory of sites (Fig 5)

Note: LB refers to Listed Building, SM refers to Scheduled Monument and MCO refers to Monument Cornwall (sites recorded within Cornwall's Sites and Monuments record).

All NGRs are centred and/or focussed on the point at which the site will be breached by works (ie the field boundaries crossed by the electrical cabling trench).

The following definitions are used in the Cornwall and Isles of Scilly Historic Environment (HE) to determine the grade/value of sites and features within the historic environment:

- S Scheduled Monuments
- L Listed Buildings
- A Site of National / potential National significance
- B Site of Regional or county importance
- C Site of Local importance
- D Modern/removed feature

Each site in the gazetteer has been assigned one of these grades.

Site no.	NGR (SW)	HBSMR ref	LB / SM ref & HBSMR grade	Site type	Description
1	86298 50318	MCO8040	SM- DCO1078 Graded S	Tregear Round	Iron Age and/or Romano-British enclosed settlement site. Univallate with an annexe extending out to the west (shown on Fig 5). It stands within land named 'Round Downs' in the Tithe apportions. Site has been ploughed throughout the 19 th century, and is now only clearly visible from aerial photographs, and at ground level as 0.7m high, 30m diameter bank with a shallow 0.3m deep ditch. At the time of survey the site stood within a deeply ploughed field, with a 0.3m+ high wheat crop.
2	86923 50551	-	LB – II DCO4070 Graded L	Tregear (north) Building	Tregear (North) An 18 th century <u>or earlier</u> , formerly thatched farmhouse of rendered cob, with brick gable chimneys. Incorporates some 18 th century internal features, stands on bedrock and has a well with iron pump at its garden gate.
3	86973 50523	-	LB – II DCO4535 Graded L	Tregear (south) Building	Tregear (South) An 18 th century, formerly thatched farmhouse, with brick gable chimneys.
4		MCO11389	(contains the 2 LB's listed above) Graded B	Tregear settlement	Early medieval and medieval settlement, first recorded in 1304 as 'Tregaer Wartha' (Gover 1948). This is a Cornish name incorporating the early medieval place-name element 'tre' meaning estate or farmstead, 'ker' meaning fort or round, and 'guartha' meaning upper (Padel 1985). Settlement subdivided at an unknown date. The lower settlement – Site 8 was later deserted, leaving Tregear as a still occupied hamlet. It incorporates

					Sites 2 and 3 at its core.
5	85970 50440	MCO32212	- Graded C?	Resugga Enclosure	Undated enclosure ditch visible as a faint crop-mark. Probable medieval / post-medieval field enclosure.
6	86559 50757	MCO32237	- Graded C	Quarry	Medieval and / or post-medieval quarry. Sub-circular with a 19m diameter.
7	86548 50951	MCO8021	- Graded B?	Hay Round	Possible Iron Age and/or Romano-British enclosed settlement site, based on field-name evidence only. An unusual setting at the head of a valley.
8	87198 50297	MCO15565	- Graded C	Lower Tregear settlement	Documented site of Lower Tregear settlement. First recorded in 1593 as 'Tregeare Vean', and subsequently known as Lower Tregear (see Fig 2). This settlement is now deserted.
9	87399 50397	MCO32215	- Graded C	Tregear field system	Early medieval field system recorded as a crop-mark. Ploughed out banks and ditches likely to represent medieval or earlier field system elements associated with Tregear.
10	86057 50434	-	- Graded C	Extant field boundary	Largely stone-faced earth and stone field boundary, with dense and varied vegetation cover. Shown on all mapping since 1809. Defines the southern edge of Tregear lane and the northern edge of the wind turbine field (up to its junction with boundary Site 11).
11	(W) 86659 50442 / (E) 86715 50488	-	- Graded C	Extant field boundary	Defines southern edge of Tregear lane to the east of the wind turbine field. Shown on the 1809 map (Fig 2) as defining the eastern edge of a now lost lane (Site 12). This boundary is at its most massive at the point where the former lane meets Tregear lane, where it has an approximate 1m height and stands on the edge of the deeply eroded former lane. Earth and stone with partial stone facing and dense varied vegetation cover.
12	86685 50476	-	- Graded C	Former lane	The 1809 OS map (Fig 2) shows a lane running along the southern edge of the wind turbine field, which then fell out of use and ceased to be mapped. At its north-eastern end, at its junction with Tregear lane it can still be seen as a narrow, 1.5m deep eroded track. The depth of erosion implies a route way of some considerable age, extending back to at least the medieval period. Marked by a naturally shaped granite upright or probable gatepost (which has unfortunately cracked in half due to an iron nail being driven through it.
13	86769 50525	-	- Graded C	Extant field boundary	Largely stone faced earth and stone field boundary, with dense and varied vegetation cover (Fig 13). Shown on

					all mapping since 1809. Defines the northern edge of Tregear lane.
14	86784 50537	-	- Graded C	Extant field boundary	Field boundary running north from Tregear lane. Shown on all mapping since 1809. Stone and earth with partial stone facing and a dense, varied cover of vegetation.
15	86948 50616	-	- Graded C	Extant field boundary	Field boundary running north from the back or northern periphery of Tregear settlement. Shown on all mapping since 1809. Stone and earth with partial stone facing and a dense, varied cover of vegetation, including small trees.
16	87206 50614	-	- Graded C	Extant field boundary	Field boundary running north to south and located to the east of Tregear. Shown on all mapping since 1809. Stone and earth with partial stone facing and a dense, varied cover of vegetation (seen from distance only).
17	86904 50618	-	- Graded D	Removed field boundary	Boundary shown as extant on 1840 Tithe, 1880 and 1907 OS maps. Visible as a crop-mark only on recent aerial photography (see front cover).
18	87033 50618	-	- Graded D	Removed field boundary	Boundary shown as extant on 1840 Tithe and 1880 OS maps, but removed by 1907. Western side of a small rectangular north to south running field enclosure. Visible as a crop-mark only on recent aerial photography (see front cover).
19	87075 50614	-	- Graded D	Removed field boundary	Boundary shown as extant on 1840 Tithe Map, 1880 and 1907 OS maps. Boundary no longer present, but historic maps show that it mirrored the same curvilinear north to south alignment as extant boundary Site 16. Visible as a crop-mark only on recent aerial photography (see front cover).
20	86329 50340	-	- Graded C	Extant boundary	Boundary first shown on 1880 OS mapping. Runs across the eastern side of the round and is at its highest in the immediate area of the round itself. NOTE: is important because it overlies, and so may protect the underlying Scheduled round.

5.2 Further archaeological potential

There is some potential for subsurface archaeological remains to exist within the area of proposed development, in line with that often found within Anciently Enclosed Land (see section 4). Archaeological remains could include elements of medieval or earlier field systems, with particular reference to Tregear Round, which will almost certainly have had associated tracks and boundaries radiating out from the round itself, connecting with contemporary open settlements and field systems etc. There is the potential for earlier, for example, Mesolithic, Neolithic and Bronze Age activity to have

taken place within the vicinity too. For example surrounding Penhale Round (Nowakowski 1993 and Johnston, Moore and Fasham, 1998/99).

Long-term, increasingly deep ploughing is likely to have truncated and or significantly disturbed any shallow or surface archaeological remains. However, deeper remains, in the form of cut features such as pits and ditches, and deposits (either dislodged from previously *in situ* contexts or from loose scatters of material) may survive. These could be revealed in plan following topsoil stripping for the wind turbine foot print itself and the adjoining access road, while the narrow electrical cable trench may reveal evidence for archaeological remains in the form of differential soils and artefacts visible within flanking spoil heaps.

6 Significance

The study area does not lie within a designated area, but is surrounded by a range of site types including most significantly the immediately adjacent Iron Age / Romano-British, Scheduled Tregear Round (Site 1), located just over 200m to the west (Fig 6). The significance of Tregear Round will be mostly due to its evidential value, there being high potential for below-ground archaeological remains in the form of structural, artefactual, environmental and dating evidence. It also has historic value in providing a visible link in the landscape to earlier activity here. For further detail on the significance of rounds in general, and the specific schedule details for Tregear Round, see section 11.1 of this report.

English Heritage Guidance (PPS5) for the Historic Environment Policy HE10, (see section 3.3.3), lays out the criteria for assessing the significance of setting for designated heritage assets.

The setting of Tregear Round is likely to include other below-ground remains, which reinforce its significance by providing a context for it, both in terms of associated sites and features and in providing evidence for earlier and later use of the landscape. The site is of value in relation to its setting as a characteristic component of the historic landscape, which has seen change over a long period, and in which the general character of farmland with scattered settlement is long established. The historic character of the setting therefore adds some value to the significance of the site, but this is partially reduced because of the degree of change since the area was enclosed and actively cultivated, as well as the reduced visibility of the round within this landscape.

Other sites identified by the assessment as being within the vicinity, but which are not considered to be at risk include; a potential round site (Site 7) 500m to the north, and an undated probable medieval/post-medieval enclosure (Site 5) to the west. Early medieval to medieval sites include Sites 4, 6, 9 and 12 (Tregear settlement, a quarry, crop-mark field system, and a disused lane). Later sites include Site 8 (the abandoned settlement of Lower Tregear) and Site 20 (a 19th century field boundary running across Tregear Round). Located within Tregear are two Listed Buildings (Sites 2 and 3), which although significant will not be adversely affected by this development.

The study area itself lies within land classified as being Anciently Enclosed Land of Medieval Farmland type (characterised by former and extant medieval settlements and boundaries) for the eastern three quarters of the cable trench, and Recently Enclosed Land for the main western field where the turbine, access road and western end of the cable trench runs (see section 4). Six boundaries – Sites 10, 11, 13, 14, 15 and 16 are considered 'important within criterion 5 of Hedgerow Regulations (see section 3 above). All are extant elements of the medieval landscape and as such significant, while boundary Sites 17, 18 and 19 have been removed, possibly retaining truncated remains in the form of flanking ditches or basal stones. These no longer have significance as landscape features, and would not be considered 'important' in terms of Hedgerow Regulations.

Assessment of importance

The 20 sites identified in this assessment include: 3 considered to be of National Importance, 1 considered to be of Regional Importance – plus a further 1 of potential Regional Importance, 11 of Local Importance (plus 1 of potential Local Importance), and 3 removed boundary sites.

Site 20, although post 1840 in date has been graded Locally Important since it overlies and may therefore protect Nationally Important Site 1 (with particular reference to the ongoing deep ploughing of the site).

It should be noted that boundary Sites 10, 11 and 13 to 19 will not be affected since the cable trench will run underneath them.

6.1 National

The following sites are designated and as such are of National significance:-

- Site 1 – Scheduled Monument DCO1078 (Tregear Round / MCO8040)
- Site 2 – Listed Building DCO4070 (Tregear North)
- Site 3 - Listed Building DCO4535 (Tregear South)

6.2 Regional

The following sites are considered to be of regional significance:-

- Site 4 – Tregear settlement (MCO11389), incorporating both of the Listed Buildings at its core.
- Site 7 – possible Hay Round site (MCO8021)

6.3 Local

The following sites are considered to be of local significance:-

- Site 5 the undated (medieval / post medieval) Resugga enclosure (MCO32212)
- Site 6 the medieval and/or post medieval quarry site (MCO32237)
- Site 8 the later medieval, now abandoned settlement of Lower Tregear (MCO15565)
- Site 9 parts of a possible early medieval crop-mark identified field system (MCO32215)
- Sites 10, 11, 13, 14, 15 and 16 all extant boundaries mapped since 1840 and fall within criterion 5 of the Hedgerow Regulations.
- Site 12 an abandoned and now lost lane of medieval (or earlier?) date
- Site 20 the post 1840 boundary running across Site 1/Tregear Round
- Site 17, 18 and 19 are all removed boundaries shown on historic mapping, which may retain below ground remains.

7 Archaeological Impact

7.1 Types and effects of impact

Types - The proposed erection of a single wind turbine, consisting of a 24m high mast supporting a 19.2m blade diameter, with an immediately adjacent electrical cabinet (located within the turbine footprint), an access road and an underground electrical cable trench running east-north-east around the back of Tregear will have a predominantly **visual impact** on Nationally Important Tregear Round (Site 1). The

development will not have a physical impact on extant boundary Sites 10, 11, 13-16 or remnant lane Site 12, since the cable trench will run beneath the ground level. The trench will run through any sub-surface remains of removed boundary Sites 17-19, but this is not considered to be significant. All remaining Sites 2-9 will either not be inter-visible with the turbine, or will not be significantly affected by the turbine being visible in the distance.

It should be borne in mind that another single turbine is already visible towards the east from the proposed site, set on a similar hilltop, agricultural setting (see Fig 8).

Effects - The effects of impacts identified above (and in more detail below) have been graded according to significance, using the following seven-point scale.

- Positive/substantial
- Positive/moderate
- Positive/minor
- Neutral
- Negative/minor
- Negative/moderate
- Negative/substantial
- Negative/unknown (for potential, unidentified sub-surface features).

7.1.1 Construction phase – physical impacts

The construction of the wind turbine's related works will involve a direct, physical impact on a number of extant identified sites.

- The underground electrical cable trench, although narrow, is long and will breach the following extant boundary sites – Sites 11, 13, 14, 15 and 16. The effects are considered **negative/minor**.
- It will also slice through the last vestiges of deeply cutting trackway – Site 12 last shown on the 1809 OS map. The effect is considered **negative/minor**.
- The access track linking the proposed turbine to Tregear lane will require an approximately 2m wide breach through boundary Site 10. The effect is considered **negative/minor**.

The construction of the wind turbine will also involve a direct, physical impact on known, but no longer extant sites.

- The underground electrical cable trench will breach the following 'former' boundary sites – Sites 17, 18 and 19, all of which may survive below ground as ditches and/or buried basal bank (earth and/or stone) remains. The effects are considered **negative/minor**.

The construction of the wind turbine may involve a direct, physical impact on unknown, no longer extant and potentially early remains, with particular reference to Tregear Round and any associated features extending out from its outer periphery, for example, radiating field boundaries forming part of a wider, contemporary field system, or trackways or unenclosed settlement remains associated with the round. There is additionally the potential for earlier, perhaps Neolithic pits or Bronze Age rounds, or later medieval remains to exist in the vicinity. Artefact scatters associated with the round, and/or other sites may be disturbed or revealed by topsoil stripping or trenching associated with this development. Such remains would be part of the setting of the round, and would contribute to its significance. However, the small scale of the development is such that it is unlikely to have more than a minor impact on the overall cohesion and legibility of any remains associated with the round. Because of the uncertainty of the

location, character and extent of these possible early remains the potential effects are considered **negative/unknown**, (probably neutral or negative/minor).

7.1.2 Operational phase – visual impacts

Once the development has been completed, no further physical impact should be involved during the sites operation.

However, the turbine has 24m high mast with 19.2m blade diameter and there will be an ongoing visual impact on the landscape, its historic landscape character, and on the landscape setting of Tregear Round. There is a direct, but distant sight-line between Probus and the proposed turbine.

- The proposed turbine will be visible across a wide area due to the high and exposed surrounding landscape. However, it is relatively small-scale (with reference to the figures quoted in English Heritage's 'Wind Energy and the Historic Environment' guidance paper, of turbines with blade diameters of up to 65 meters, and turbine heights of up to 80 meters), and should not result in the turbine being a visually dominating new landscape feature. The effects on the wider landscape are considered to be **negative/neutral**.
- The Anciently Enclosed HLC (historic landscape character), identified as Medieval Farmland (see 4.1 above), will be visually affected by the positioning of a wind turbine on an area historically identified and used as open down land. However, it is felt that this visual impact would not be considered significant given the 'intense' appearance of modern agricultural use of the area. The high location, although dominating some of the immediate environment, does render many areas invisible from view, with particular reference to those in valley settings – such as Tregear (Sites 2, 3, 4 and 8), and sites to the west which are at the same height, but separated by boundaries from a direct view east towards the turbine – Site 5 and 1 (see below). The broad effect on the Anciently Enclosed Landscape is considered to be **negative/minor**.
- The adjacent Scheduled monument of Tregear Round Site 1 is currently under an active ploughing regime. It has since the 1840s been significantly reduced in height and stature (compare 1809 OS map – Fig 2 with today's photograph of the site – Fig 7). The post 1840 boundary (and water tank) – Site 20, which cuts across it has further compromised the setting of the round. Much of the round is positioned to the west of boundary Site 20, rendering the proposed turbine slightly less visible. The overall historic character of the area around the round will remain largely unchanged and so the development will not significantly detract from the significance of the heritage asset. However, the creation of an access road in addition to the turbine itself will alter the open, high ground feel and setting of the round, in a landscape whose character has changed relatively little since 1809, with the exception of the construction of boundary Site 20. The effect on the setting of the Scheduled round – Site 1 - is considered to be **negative/moderate**.

7.1.3 End of use phase

When the proposed turbine is decommissioned, the entire visual element of its impact during use will be reversed. English Heritage point out in their 'Wind Energy and the Historic Environment' guidance paper (page 9), that provision should be made for the long term protection of the landscape by requiring 'remediation and restoration' of the site, that is the removal of standing remains, including the turbine itself and the electrical cabinet.

The physical impact on known and potential archaeological remains is not reversible. It is as a result important that these sites and remains are adequately mitigated for – see section 8 below.

8 Recommendations

In light of the findings of the assessment, it is recommended that as part of the planning process a written scheme for archaeological mitigation be developed, to be approved by the Local Planning Authority in advance of the works proceeding. The scope of the written scheme should be developed under the guidance of, or to a brief set by, the Cornwall Council Historic Environment Planning Advice Officer. This programme of recording is likely to include one or more of the following elements:

8.1 Watching brief

It is recommended that an archaeological watching brief should be undertaken during the excavation of both the main turbine footprint and the access road to the site. These two areas should be stripped of topsoil, using a toothless grading bucket. The depth of topsoil should be decided by the attendant archaeologist, in order to avoid damage to any sub-surface remains. Adequate provision should be made for the archaeologist to collect any disturbed finds, photograph and/or draw, record and measure any contexts revealed. Any small scale remains, for example a discrete, truncated pit or ditch should be dealt with as a part of the watching brief. For more complex, larger or well preserved early remains larger scale excavation may be required.

8.2 Excavation

It is recommended that in the event of significant archaeological features being identified during the topsoil strip (for example a remnant barrow), full excavation of the remains should be undertaken, unless the option to re-locate site works is undertaken. Hand excavation would entail sampling of material suitable for scientific dating, finds retrieval, recording all contexts, the production of measured drawings and detailed photography. The results would then require analysis and publication.

8.3 Archaeological recording and/or finds retrieval

Depending on its final width, it is recommended that the long, very narrow electrical cable trench should be walked after excavation, allowing the archaeologist to search for and selectively retain/record the presence of significant finds. It is unlikely that the trench will be wide enough to allow for the identification of any features crossed, but a rapid inspection should take place in conjunction with the finds retrieval in case additional information can be gleaned.

8.4 Recording of field boundaries

A number of field boundaries will be breached or possibly drilled under for the insertion of electrical cabling. Although this is unlikely to involve any good opportunities for recording, where damage does occur to the built structure of the boundary, provision should be made for its reinstatement.

9 References

9.1 Primary sources

Ordnance Survey, c1809. *1 inch to 1 mile map* First Edition (licensed digital copy at HE)

Tithe Map and Apportionment, c1840. *Parish of Ladock*

Ordnance Survey, c1880. *25 Inch Map* First Edition (licensed digital copy at HE)

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

Ordnance Survey, 2007. *Mastermap Digital Mapping*

9.2 Publications

Cornwall County Council, 1996. *Cornwall Landscape Assessment 1994*, Cornwall County Council: Truro

English Heritage 2010, *The setting of heritage assets: English Heritage guidance. Consultation draft.*

Gover, J. E. B., 1948. *Place-Names of Cornwall*, Typescript held in HE library

Johnston, DA., Moore, C., and Fasham, P., 1998/99. *Excavations at Penhale Round, Fraddon, Cornwall 1995/1996*

Jones, A. and Taylor, SR., 2010. *Scarcewater, Pennance, Cornwall Archaeological Excavation of a Bronze Age and Roman Landscape. BAR British Series 516*

Nowakowski, JA. 1993. *A30 Project – Archive Report on the Archaeological Excavations at Penhale Round, Fraddon, Cornwall 1993* Volumes 1 and 2, compiled by Davis, Grove, Heathcote, Johns and Nowakowski; Cornwall Archaeological Unit Report, Truro.

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

9.3 Websites

<http://www.imagesofengland.org.uk/> English Heritage's online database of Listed Buildings

<http://www.english-heritage.org.uk/professional/advice/advice-by-topic/climate-change/renewable-energy/wind-energy/>

<http://www.english-heritage.org.uk/content/publications/docs/heritage-assets-draft.pdf>

http://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=1020179&resourceID=5

10 Project archive

The HE project number is **2011048**

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY. The contents of this archive are as listed below:

1. A project file containing site records and notes, project correspondence and administration.
2. Digital photographs stored in the directory: R:\Historic Environment (Images)\SITES.I-L\Ladock-Tregear wind turbine 2011
3. English Heritage/ADS OASIS online reference: cornwall2-101873

This report text is held in digital form as: G:\Historic Environment (Documents)\HE Projects\Sites\Sites L\Ladock, Tregear turbine assessment \Tregear wind turbine assessment report 2.doc

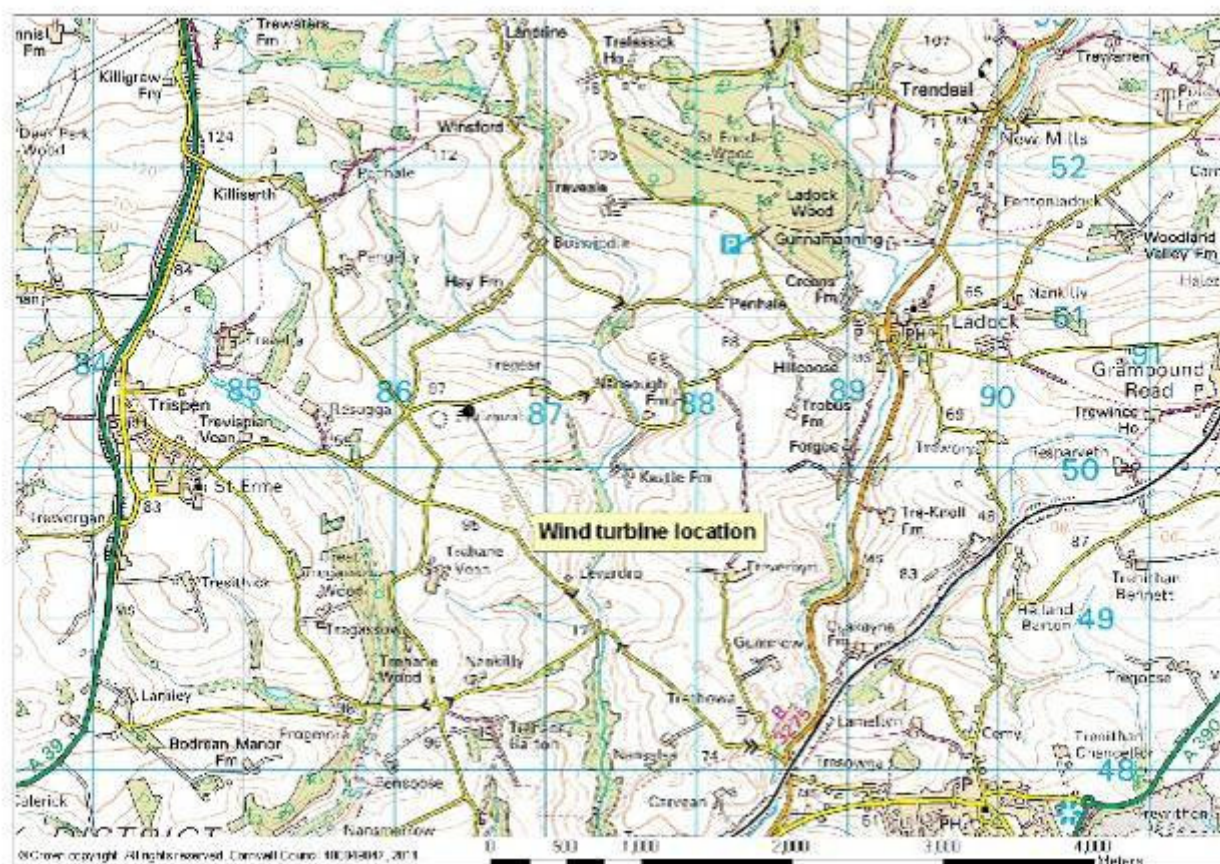


Fig 1 Location map, showing the wind turbine site located between Ladock and Trispen.



Fig 2 1809 First Edition, 1" to 1 mile OS map showing the approximate site location and environs (Note the clearly depicted round and contour shading).

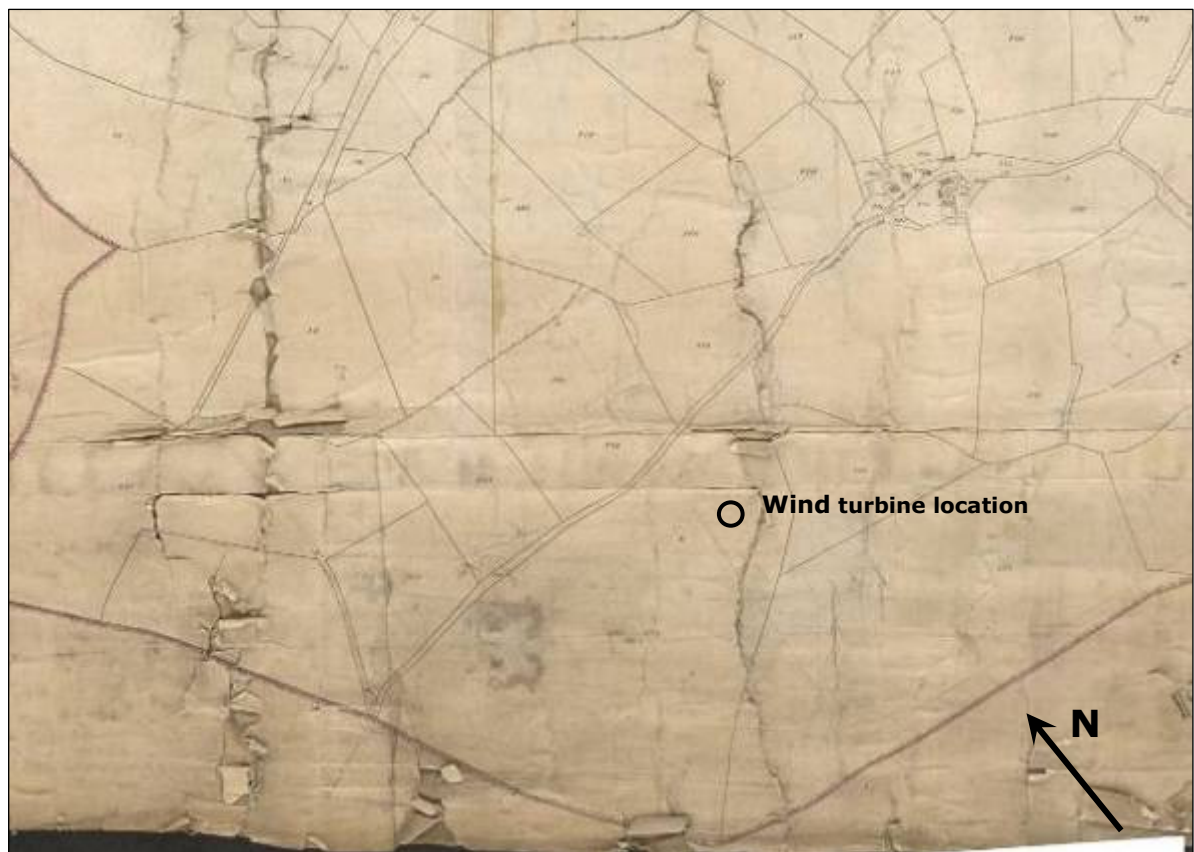


Fig 3 Map extract from Ladock Parish Tithe map (c1840).

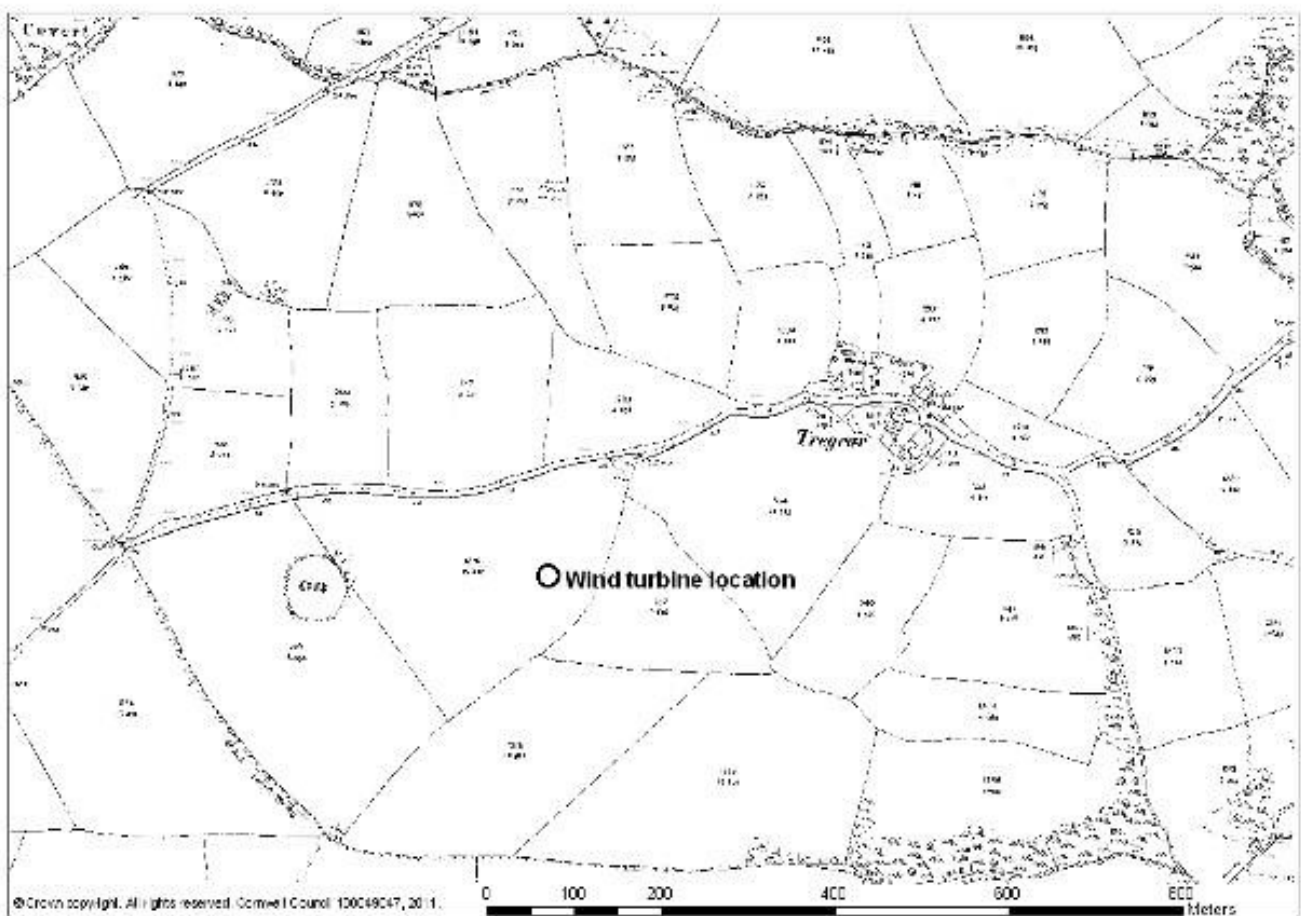


Fig 4 Second Edition of the Ordnance Survey 25 Inch Map, c1907

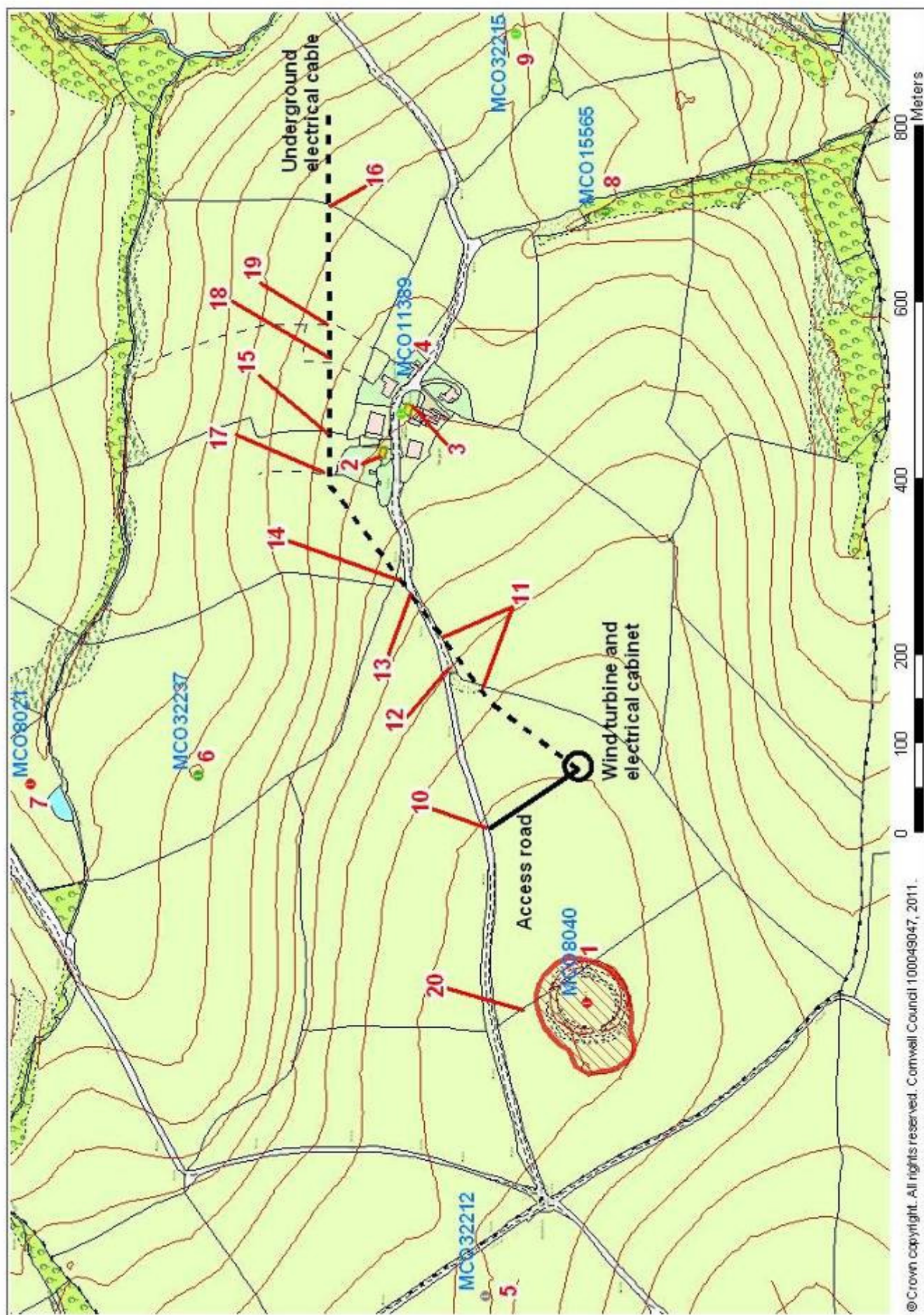


Fig 5 Ordnance Survey digital mapping (2009) showing the site works, nearest HER identified sites (including Scheduled Monument and Listed Buildings), and contours.

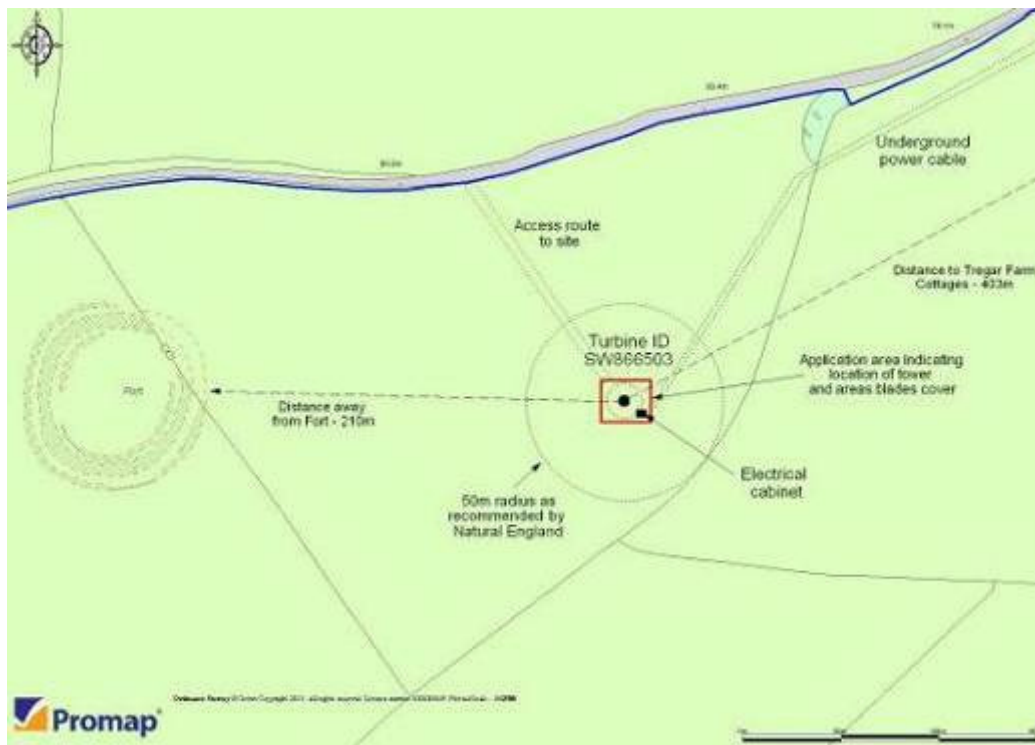


Fig 6 Copy of map provided by the client showing the proposed turbine works.



Fig 7 Looking south-east along the post-1840 boundary Site 20, which runs across Tregear Round. The boundary appears highest (largely because of a large tree stump and bushes) where the round is.

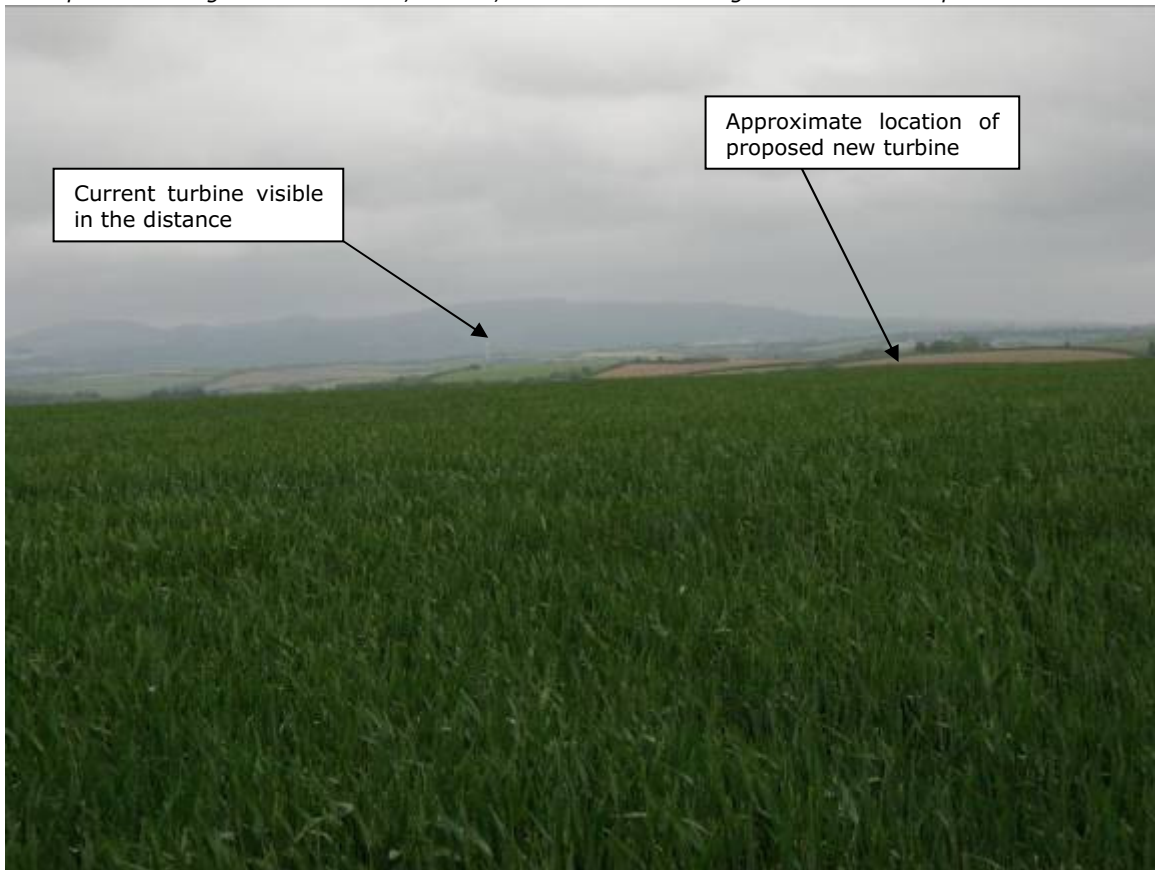


Fig 8 Looking east across the turbine field from the round. The proposed turbine will stand at approximately the break of slope. Note the



Fig 9 Looking east along the remnant track Site 13, at a point just before it merges diagonally in with the current road.

11 Appendices

The following extract regarding the scheduling of Tregear Round has been taken from - http://www.heritagegateway.org.uk/Gateway/Results_Single.aspx?uid=1020179&resourceID=5

11.1 Tregear Round schedule details

Rounds are small embanked enclosures, one of a range of settlement types dating to between the later Iron Age and the early post-Roman period. Usually circular or oval, they have a single earth and rubble bank and an outer ditch, with one entrance breaking the circuit.

Excavations have produced drystone supporting walls within the bank, paved or cobbled entrance ways, post built gate structures, and remains of timber, turf or stone built houses of oval or rectangular plan, often set around the inner edge of the enclosing bank. Other evidence includes hearths, drains, gullies, pits and rubbish middens. Evidence for industrial activities has been recovered from some sites, including small scale metal working and, among the domestic debris, items traded from distant sources. Some rounds are associated with secondary enclosures, either abutting the round as an annexe or forming an additional enclosure.

Rounds are viewed primarily as agricultural settlements, the equivalents of farming hamlets. They were replaced by unenclosed settlement types by the 7th century AD. Over 750 rounds are recorded in the British Isles, occurring in areas bordering the Irish Seas, but confined in England to south west Devon and especially Cornwall, where many more examples may await discovery. Most recorded examples are sited on hillslopes and spurs.

Rounds are important as one of the major sources of information on settlement and social organisation of the Iron Age and Roman periods in south west England. Consequently, sites with significant surviving remains will normally be considered to be of national importance.

Tregear Round

The round and annexe 720m WSW of Tregear survives reasonably well, despite some reduction and modification of the enclosing banks and ditches. The old land surface underlying the upstanding earthworks and remains of buildings, structures and other deposits associated with these will survive.

The scheduling includes a later prehistoric to Romano-British round with an annexe, situated on a slight south west slope on top of a ridge east of Trispen. The overall plan is irregular, the sub-circular round and the roughly crescentic annexe on its west side together measuring up to 130m WSW-ENE by 90m NNW-SSE.

The round measures about 90m across. It has an enclosing bank 10m-16m wide and 0.6m-0.9m high externally and up to 0.2m high internally. The exposed material

of the bank is shillet stones, mostly under 0.1m across, with some earth. On the north east side, it is modified to form part of a modern field boundary bank about 1.8m wide at its base and up to 1.2m high, with post-medieval type stone revetments either side. The external ditch is around 13m wide and 0.3m-0.7m deep. The round's interior is fairly level.

The approximate external dimensions of the annexe are 65m north-south by 50m east-west. It has an enclosing bank of earth and stone, visible on the north side as a slight earthwork which, by analogy with similar sites, extends around the east and south sides. An external ditch, now buried, appears on aerial photographs which also show buried remains of a sub-oval feature on the north west edge of the annexe ditch, considered to be the remains of an associated house or small enclosure.

The modern water tanks, all associated piping and well fittings, drinking trough and concrete block steps are excluded from the scheduling, although the ground beneath them is included.

11.2 Brief for Archaeological Assessment

Date: 03/05/2011

Site: Tregear Farm, Ladock

Address: as above

Application Number: Screen/ PA11/00351

Historic Environment Planning Advice Officer: Dan Ratcliffe

Planning Case Officer: Martin Woodley / unassigned

This brief is only valid for six months. After this period the Historic Environment Planning Advice Officer (HEPAO) should be contacted. The contractor is strongly advised to visit the site as there may be implications for accurately costing the project.

Contractors Written Scheme of Investigation (WSI)

No ground works are to be undertaken until the HEPAO and the Local Planning Authority (LPA) have approved the archaeological contractor's WSI.

1 Introduction

This brief has been written by the HEPAO and sets out the minimum requirements for an archaeological assessment of the site of Tregear Farm, Ladock.

An archaeological assessment incorporating an assessment of the setting of a Scheduled Monument will be required to provide information on the significance and potential of archaeological remains on the site and to identify the likely impact of the proposals on that significance.

2 Site Location and Description

The area likely to be affected by the current proposals consists of land to the west and north of Tregear Farm.

3 Planning Background

Screening PA11/00351 involved a proposal to erect a 55kw wind turbine. Both EH and CC HES have indicated that due to potential impacts to historic assets, professional assessment of these impacts is required.

4 Archaeological Background

The proposed site of the turbine involved lies 210m from a Scheduled 'round' (SAM32950 HER 22364) and close to the medieval settlement of Tregear (22564) and within Anciently Enclosed Land. Potential impacts include disturbance of below ground remains during construction of access roads, turbine and crane base, and service routes in addition to effects on the setting of the adjacent Scheduled Monument.

5 Requirement for Work

Ground works may disturb extant and buried archaeological remains. In order to understand the site and its potential for recording archaeological remains an assessment is required. This would involve a desk based assessment including a map regression plus a walk over survey of the extant remains of the site. This would provide evidence for any recommendations for archaeological recording.

The site specific aims are to:

- Draw together the historical and archaeological information about the site.
- Review and analyse historic map evidence for the site.
- Whether historic/architectural features should be retained.
- Inform whether archaeological recording of any extant remains is required.
- Inform whether an archaeological evaluation or further archaeological recording of any potential buried remains is required.
- Inform whether palaeo-environmental sampling would be required.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- Apply recent draft EH guidance on the assessment of the setting of Heritage Assets.
- Identify the construction, use and 'end of life' impacts of the current proposals on the 'national importance' of Scheduled Monuments, the 'Outstanding Universal Value of the World Heritage Site' and on undesignated historic assets as described in PPS5.

6 General Guidance

- 6.1 The archaeological contractor is expected to follow the code of the Institute for Archaeologists (IfA).
- 6.2 All of the latest Health and Safety guidelines shall be followed on site.
- 6.3 Terminology will be consistent with the English Heritage Thesaurus.

7 Results

- 7.1 The full report including all specialist assessments of artefact assemblages shall be submitted within a length of time (but not exceeding six months) to be agreed between the applicant and the archaeological contractor, Cornwall Council Historic Environment Service and the Cornwall Record Office or Royal Cornwall Museum. A further digital copy shall be supplied on CD-ROM preferably in 'Adobe Acrobat' PDF format.
- 7.2 The archaeological contractor will undertake the English Heritage/ads online access to the index of archaeological investigations (OASIS).
- 7.3 This report will be held by the Cornwall and Scilly Historic Environment Record (HER) and made available for public consultation.

7.4 The report must contain:

- A concise non-technical summary of the project results.
- The aims and methods adopted in the course of the investigation.
- A discussion of the archaeological findings in terms of both the site specific aims and the desk based research.
- A location map, a drawing showing those areas examined as part of the archaeological recording, and copies of historic maps and plans consulted and any archaeological plans and sections. All plans shall be tied to the national grid.
- All specialist reports and assessments.
- A summary of the archive contents and date of deposition.
- A copy of the brief and the approved WSI will be included as an appendix.

8 Archive Deposition

- 8.1 An ordered and integrated site archive will be prepared in accordance with: *Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006* upon completion of the project. The requirements for archive storage shall be agreed with Royal Cornwall Museum.
- 8.2 Where there is only a documentary archive this will be deposited with the Cornwall Record Office as well as the Courtenay Library of the Royal Institution of Cornwall.
- 8.3 A copy of the report will be supplied to the National Monuments Record (NMR) Swindon.
- 8.4 A summary of the contents of the archive shall be supplied to the HEPAO.
- 8.6 Only on completion of 8.1 to 8.5 (inclusive) will there be a recommendation for the discharge of any archaeological recording condition.

9 Monitoring

- 9.1 The HEPAO will monitor the work and should be kept regularly informed of progress.
- 9.2 Notification of the start of work shall be given preferably in writing to the HEPAO at least one week in advance of its commencement.
- 9.3 Any variations to the WSI shall be agreed with the HEPAO, preferably in writing, prior to them being carried out.

11.3 Project Outline for Archaeological Assessment of Tregear, Ladock, Wind turbine

By Andy Jones 6/5/11

Historic Environment Projects, Cornwall Council, Kennall Building, Old County Hall, Station Road, Truro, TR1 3AY

Introduction

HE Projects have been requested by Mr Richard Stone, to provide a project design and an estimate for an archaeological assessment of a proposed wind turbine site at Tregear, Ladock. The proposed scheme will involve the erection of a turbine and the construction of a track and underground cabling. The proposed development lies approximately 200m to the east of Tregear round an enclosed prehistoric or Romano-British settlement site. The enclosure is a Scheduled Monument (SAM32950).

The proposed site works are believed to include the following elements:

- Foundations measuring 6m by 6m and 1.5m deep for the wind turbines.

- Access route to site measuring 2.5m wide by 0.5m deep and 130m long.
- Underground cable to Tregear measuring 300mm wide, by 1m and 800m long.

An assessment which identifies and considers the impact of the proposed development upon the setting of this monument is required to inform the determination of Screening PA11/00351.

PPS5 Planning for the Historic Environment (DCLG 2010) Policy HE6 states that '*Local planning authorities should require an applicant to provide a description of the significance of the heritage assets affected and the contribution of their setting to that significance.*' Policy HE10 goes on to state that LPAs should '*treat favourably applications that preserve ... or better reveal the significance of the asset [and] identify opportunities for changes in the setting to enhance or better reveal the significance of a heritage asset.*'

Daniel Ratcliffe (Historic Environment Advisor (Archaeology), Cornwall Council) has produced a brief (3/5/11) for the archaeological assessment and he has been consulted in the preparation of this project design and his requirements for archaeological recording have guided this project design and estimate.

The assessment will help to inform the decision as to whether further stages of archaeological recording will be necessary.

Background

The proposed turbine area is situated within an area of land that has been classified as 'Anciently Enclosed Land' (Countryside Commission 1996). 'Anciently Enclosed Land' is land which has been settled since at least the medieval period and which often contains archaeological remains dating to prehistoric and medieval times.

The project area is situated in an area with significant archaeological potential, which contains evidence of prehistoric and medieval activity. The sites, which have been identified on the Historic Buildings, Sites and Monuments Record (HBSMR) in the vicinity, include:

- The proposed turbine site is located 210m to the east of Tregear Round an enclosed settlement of prehistoric or Roman date (MCO8040). The site is a Scheduled Monument (SAM32950).
- The proposed turbine sites lies 500m to the north of a crop-mark enclosure of prehistoric date which is visible from the air (MCO 32146).
- The proposed turbine site and associated work lie within land associated with the early medieval settlement of Tregear, which was first recorded in 1304 (MCO11389).

Potential sites

There is the potential for prehistoric, Romano-British and medieval sites to survive within the project area and for the survival of unrecorded buried archaeological remains and artefacts of all periods.

Aims and objectives

The aims of the assessment will be:

- To identify and describe the archaeological resource within the development area.
- Draw together the historical and archaeological information about the site.
- Review and analyse historic map evidence for the site.
- Apply recent draft EH guidance on the assessment of the setting of Heritage Assets.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposal.

- Identify the construction, use and 'end of life' impacts of the current proposal on the significance of the setting of the monument.
- To assess the impact of the proposal on the importance and integrity of the resource.
- To assess the impact of the proposal in the setting of significant assets beyond the proposal area.
- To identify ways of minimising the impact upon the archaeological resource.
- To make recommendations for archaeological recording during the development and construction of the development.

Methodology

The assessment will consist of the following:

- Desk top study; walkover of the area; production of an assessment report.

Desk top study

This will involve the inspection of the following sources, the plotting of archaeological and historic information onto base maps, and the initial preparation of gazetteers:

- Historic Buildings, Sites and Monuments Record (including secondary sources in HE library) be consulted and the previous HE reports relating to the area will be reviewed.
- Historic Mapping will be consulted. This will include the 1809 First Edition OS map, the 18840 Tithe Map and the 1880 OS map.
- The Structure Plan and Local Plan will be consulted for historic designations, for example World Heritage site, Conservation Areas, Areas of Great Historic Value, etc.

Walk-over survey

Archaeological fieldwork will comprise a walk-over survey of the site to be assessed using a composite base map derived from the desk based study. An assessment of the impacts of the proposals will be made from the site using the guidelines and methodological approaches set out in English Heritage's recent consultation draft guidance on the setting of heritage assets (following the approach outlined in Section 3 of the EH draft guidance).

Preparation for the walk-over will include:

- Preparation of base maps with known sites.
- Liaison to arrange access to the site.
- Risk assessment (to be carried out with project manager).

The walk-over survey will achieve the following:

- Description of the site.
- Assessment of impact that the redevelopment of the site will have on adjacent designated heritage assets.
- Identify areas that would benefit from further stages of archaeological investigation.

Assessment report

The results from the walk-over survey and the desktop assessment will be presented in a concise report which is focussed upon establishing the impact of the proposed development upon the setting of adjacent designated heritage assets. Copies of the report will be distributed to the Client, the County Archaeologist and the local and main archaeological record libraries. A PDF copy of the report will be produced.

A draft copy of the report will be provided to the client.

The report will have the following contents:

- **Summary:**
 - Description of resource, importance, impact, initial recommendations.
- **Introduction:**
 - Background; objectives; methods; the area.
- **Description of the resource:**
 - General description of the resource.
 - Other archaeological potential.
- **Assessment of importance:**
 - Designations of the proposed scheme and the adjoining landscapes.
 - Statements of significance for all designated historic assets that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- **Assessment of impact:**
 - Identify and summarise the construction, use and 'end of life' impacts of the current proposals on the significance of the setting of the Scheduled Monument.
- **Recommendations**
 - Further archaeological recording (eg, geophysical survey, watching brief, controlled soil stripping).
 - Outline proposals for archaeological recording.
 - Reduction of impact (screening of site, sensitive design, etc).
- HE Archive
- References
- Appendices: Inventory of Sites

Illustrations:

- General Location map
- Detailed map showing location of sites and adjacent features.

Health and safety during the fieldwork

1. Health and safety statement

Historic Environment is within the Environment, Planning and Economy Directorate of Cornwall Council. The HE projects team follows Cornwall Council's *Statement of Safety Policy*.

Prior to carrying out any fieldwork HE will carry out a risk assessment

Insurance

As part of Cornwall Council, HE Projects is covered by Public Liability and Employers Liability Insurance.

Standards

The HE follows the Institute for Archaeologists' Standards and Code of Conduct and is a Registered Archaeological Organization.

As part of Environment, Planning and Economy Directorate of Cornwall Council, the HE projects team has certification in BS9001 (Quality Management), BS14001 (Environmental Management), OHSAS18001 (Health, Safety and Welfare), Investors in People and Charter Mark.

Copyright

Copyright of all material gathered as a result of the project will be reserved to the Environment, Planning and Economy Directorate of 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

All information gathered during the implementation of the project will be subject to the rules and regulations of the Freedom of Information Act 2000.

Contract

The HE projects team is part of the Historic Environment, within Environment and Heritage, Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

Historic Environment - Project Staff

The project will be managed by Andrew Jones, a member of staff who is a Member of the Institute for Archaeologists, he will:

- Discuss the objectives and programme of the assessment with project staff, including arrangements for Health and Safety.
- Monitor progress and results for each stage.
- Edit the project report.

An experienced member of HE Projects staff will undertake the desk-based work, the archaeological fieldwork and produce the assessment report.