



Rowland's Corner, Egloskerry, Cornwall

Archaeological assessment of proposed wind turbine



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The viewshed mapping was carried out by Krysia Truscoe.

The Project Manager was Adam Sharpe.

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

Looking south-east across the proposed turbine field.

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Abbreviations

EH	English Heritage
HER	Cornwall and the Isles of Scilly Historic Environment Record
HE	Historic Environment, Cornwall Council
MCO	Monument number in Cornwall HER
NGR	National Grid Reference
OD	Ordnance Datum – height above mean sea level at Newlyn
OS	Ordnance Survey
ZTV	Zone of Theoretical Visibility

1 Summary

Historic Environment Projects, Cornwall Council, was approached in January 2013 by Capture Energy Ltd with a request to provide costs for an archaeological assessment of a proposed single 24m to hub height (34.4m to blade tip) wind turbine. The turbine is proposed for land at Rowland's Corner, Egloskerry, located between Launceston to the east and Camelford to the west at SX 25817 86871.

The site is located in an undulating rural area of east Cornwall near Tresmeer and Tregear, in ground combining altered medieval and post-medieval Anciently Enclosed Land and Upland Rough Ground. The field in which the turbine will stand is shown on the Tithe Map as un-enclosed upland, while much of the proposed access track will run through steep Medieval and Post-Medieval Enclosed Land. The turbine will be located just to the east of the top of Tregear Beacon at a height of 212m OD, in land that has a strongly rural character and is classified as an Area of Great Landscape Value.

There are a number of Listed Buildings and Scheduled Monuments in the vicinity, as well as non-designated sites noted within the HER. Many of these fall within the zone of theoretical visibility, although a number are shielded from direct views to and from the turbine by trees along lanes and boundaries and sometimes by intervening buildings. Tregear House and village, along with Penheale Manor and associated structures plus its designated Park and Garden both lie within 3km of the site and contain the largest concentrations of Listed Buildings. Egloskerry Church is clearly intervisible with the proposed site and the probable visual impact on this site has been graded as negative/moderate. Lying 250m west of the site is Tregear Camp, which incorporates a number of Scheduled elements dating to the prehistoric to post-medieval periods. Tregear Camp will be clearly intervisible with the site and the potential visible impact here has been graded as negative/significant. Most other site impacts have been identified as neutral to negative/minor.

The assessment report consisted of a desk-based assessment, a viewshed analysis (out to a maximum of 10km) and a walkover survey.

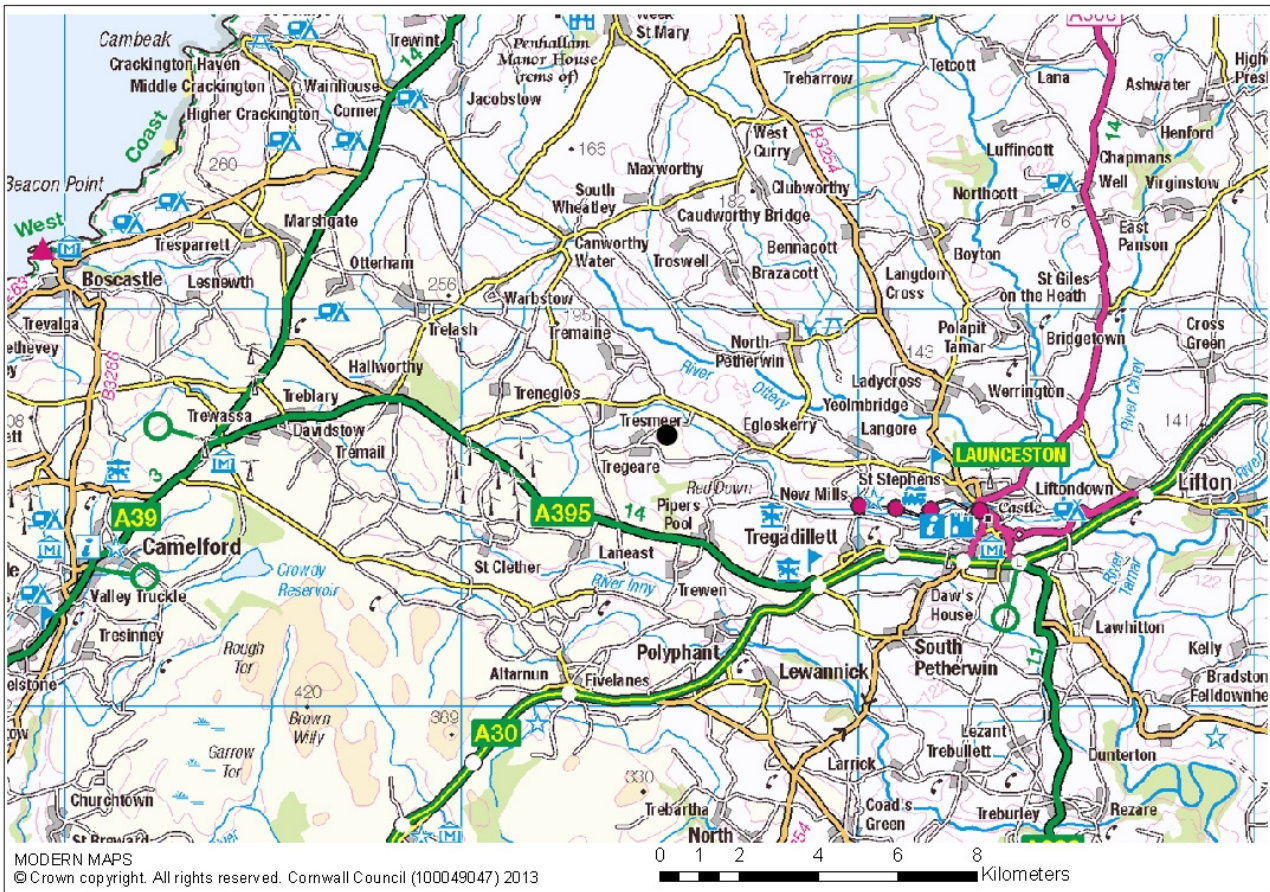


Fig 1 Location map for the site.

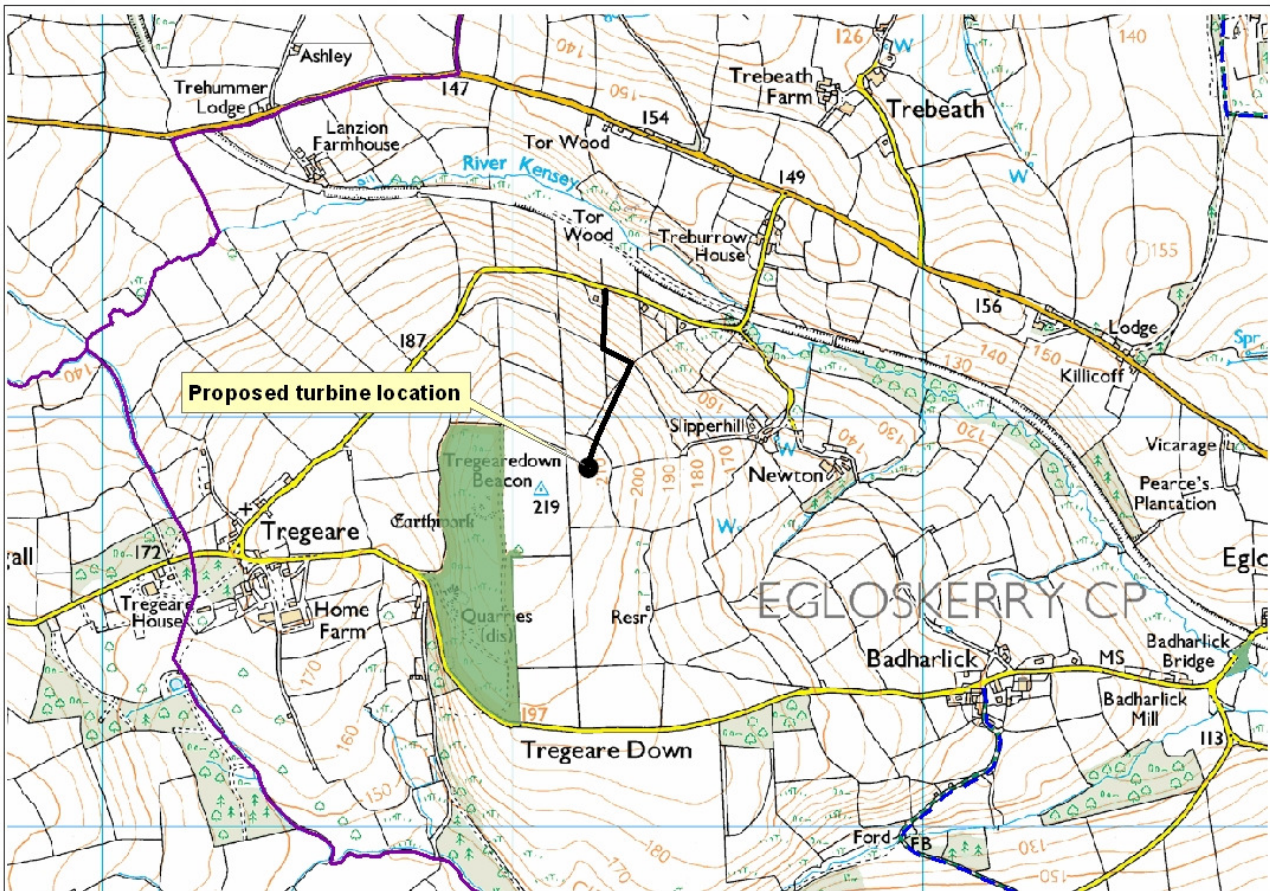


Fig 2 Site map showing proposed turbine location, parish boundaries (solid blue line), right of way (blue dashed) and Open Access Land (green shading).

2 Introduction

2.1 Project background

Historic Environment Projects, Cornwall Council, was approached by Nicola Davies of Capture Energy Ltd. in early January 2013 with a request to provide costs for an archaeological assessment of a proposed wind turbine at Rowland's Corner, near Egloskerry as part of a proposed planning application (PA 12/11104). The proposed wind turbine will be 24m to hub height and 34.4m to blade tip height. It will be sited on land at 212m OD.

English Heritage have summarised the considerations which should be taken into account when assessing the archaeological impacts of renewables proposals, including indirect impacts on designated sites, areas and the surrounding landscape. English Heritage has indicated that impact assessments for renewables applications should also include an assessment of the potential for impacts on buried archaeology, effects on landscape amenity and cumulative impacts. A guidance table indicating recommended ZTV distances in the cases of wind turbines of varying heights is included in this guidance, in this specific instance the recommended ZTV radius being 10Km. Direct and indirect impacts on Scheduled Monuments and Grade 1 and II* Listed Buildings have been considered out to 7.5Km, together with those on designated landscapes. Impacts on Grade II Listed Buildings have been assessed out to a 3Km radius from the site, while undesignated sites have been looked at out to a 1Km radius.

A letter from English Heritage in response to the initial proposal for a wind turbine at this site included concerns over the proximity of the proposed turbine to Listed and Scheduled sites within the vicinity. The relevant letter was sent from English Heritage's South West Office on 20/December/2012, letter reference P210313.

A screening opinion for the proposal included a recommendation that the scope of the assessment should be guided by a brief produced by the Historic Environment Advice Officer (East), Mr. Phil Copleston. In this instance it was agreed between Adam Sharpe (Project Manager) and Mr. Copleston that a standard brief could be utilised, and that the Written Scheme of Investigation produced by HE Projects would have to be approved before the study could commence (Appendix 10).

The relevant section of the standard brief guiding such assessments states:

An assessment of the archaeological potential of the site and the potential impacts of the development on surrounding historic assets will be required to provide information in support of a planning application for the proposed development in accordance with the requirements of National Planning Policy Framework paragraph 128.

Cornwall Council Historic Environment Service believes high quality design should play a key role in minimising any adverse effects of renewable energy projects, whether this is directed at the disposition of wind turbines and energy crops in the landscape or the positioning of photo-voltaic cells on historic buildings or within the countryside. Fundamental to achieving high quality design will be a sound understanding of the character and importance of the historic asset involved, whether at the scale of individual buildings and sites or more extensive historic areas and landscapes.

2.2 Aims

The principal aim of the study is to gain a better understanding of the impacts which would result from the construction of a wind turbine on land at Rowland's Corner, near Egloskerry and Tregear in the parish of Egloskerry, East Cornwall.

The overall project aims are to:

- Establish viewsheds of the proposal site.
- Draw together existing historical and archaeological information about the site and its landscape setting from published and unpublished sources and

information on designated and undesignated assets from national and local Historic Asset registers (such as the Cornwall and Scilly HER, the NMR, Heritage Gateway, etc).

- Review and analyse historic map evidence for the site.
- Consider any geotechnical or geophysical data for the site.
- Undertake a site 'walkover' survey.
- Produce short 'statements of significance' for designated historic assets that are potentially impacted on by the current proposals following the initial filtering of the ZTV evidence. Where currently undesignated assets are identified as likely to be impacted upon their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- 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 palaeoenvironmental sampling would be required.
- Identify the construction, use and 'end of life' impacts of the current proposals on designated heritage assets (as listed in the NPPF) and on undesignated historic assets as described in PPS5.
- Follow English Heritage Guidance 'The Setting of Heritage Assets' (2011) to produce assessments of the significance of setting of affected assets and the impacts of the proposals on those settings.

The principal project objective is to produce an illustrated report setting out the range of potential impacts of the proposal, the relative significances of the potentially affected sites and suggestions for suitable mitigation measures.

A further objective is to produce an entry to the OASIS on-line index to archaeological projects.

2.3 Methods

All recording work has been undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording*. The *IfA Code of Conduct* and *Code of Approved Practice for the Regulation of Contractual Arrangements in Archaeology* was followed. The Institute for Archaeologists is the professional body for archaeologists working in the UK.

Desk-based assessment

A desk-based assessment was carried out to inform the fieldwork stage. This comprised:

- Relevant published sources
- Historic maps, including:
 - Joel Gascoyne's map of Cornwall (1699)
 - John Norden's map (c1724)
 - Thomas Martyn's map of Cornwall (1748)
 - OS 1 inch survey (c1810)
 - Egloskerry Tithe map (c1840)
 - 1st and 2nd Editions of the OS 25 inch maps (c1880 and c1907)
- Modern maps
- GIS layers curated by Cornwall Council and the Historic Environment, Cornwall Council

Assessment of impacts on setting of heritage assets

Heritage assets intervisible with the sites of the proposed turbine were identified through the creation of a viewshed using GIS software. The methodology employs a 'bare earth' or Digital Terrain Model (DTM) given that features like woodland which may currently block views are not permanent features of the landscape. A viewshed was generated for an 'observer point' based on the location of the proposed turbine.

When performing a viewshed analysis, several variables were used to limit or adjust the calculation including offset values, limitations on horizontal and vertical viewing angles (azimuth) and distance parameters (radius) for the observer point. The viewsheds were based on 'observer elevation values' made up of the 'elevation value' or height above sea level of the ground at the observer viewpoint, with additional offsets of 24m representing the hub height and 34.4m representing the maximum height of the turbine blade tips.

These viewsheds were checked on the ground from key sites, whilst significant heritage assets within the theoretical viewsheds were visited to determine intervisibility with the proposed development site, and hence the scales and types of any visual impacts which might affect settings, as required by English Heritage (2011).

Fieldwork: survey

As directed by the brief, a walkover survey was undertaken within the environs of the site proposed for the wind turbine at Rowland's Corner. Sites identified within the desk-based assessment were field checked and their condition noted. Areas of archaeological sensitivity were also identified during the walk over survey.

Site visits were made to publicly-accessible potentially intervisible key heritage assets within the area covered by the viewshed zones to truth-check this mapping and to determine the likely scale of impact on these heritage assets of the construction of the wind turbine.

Fieldwork: photographic recording

High resolution digital photographs were taken from the location of the proposed turbine to record the landscape visible from its site, together with any heritage assets contained within it. Where practicable, images were taken of inter-visible heritage assets within the locality to determine the level of visual impact which might be expected from the proposed development. Images back towards the proposed site were taken from significant heritage asset receptors to indicate the likely degree of intervisibility between these heritage assets and the development site and the likely impacts on their settings.

The photo record comprises:

- General views from the site towards viewshed sites and to set the proposed site into its landscape context.
- General views from viewshed sites back towards the proposed turbine site.
- Images including both designated sites and the site of the proposed wind turbine to illustrate how its construction might impact on key views of them.

Creation of site archive

This included:

- Digital colour photographs stored according to HER guidelines.
- Project materials stored according to HER guidelines.
- Completion of an English Heritage/ADS OASIS online archive entry.

Assessment report

The results of the above phases of work have been presented in this assessment report.

A digital (PDF) copy of the report, illustrations and any other files will be deposited within the Cornwall HER. Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres. These will be held back from public access until the planning application for the proposed turbine has been submitted and the information contained within the report will therefore be deemed to be within the public domain.

Archive deposition

An index to the site archive has been created and the archive contents prepared for long term storage, in accordance with HE standards.

An ordered and integrated site archive has been prepared in accordance with Management of Research Projects in the Historic Environment (MoRPHE) English Heritage 2006 upon completion of the project. As the project is likely to produce solely a documentary archive this will be deposited with the Cornwall Record Office.

A summary of the contents of the archive shall be supplied to the HEPAO.

The archiving comprises 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. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.

3 Location and setting

The site is located in a rural area of east Cornwall at OS Grid Reference SX 25817 86871, between Egloskerry located 2km to the east, and Tregear, located less than 1km to the west-south-west (figures 1 and 2). Launceston is located some 8km to the east, and the fringes of Bodmin Moor are slightly further to the west.

The wind turbine is to be sited at a height of 212m OD within a north to south aligned broadly rectangular field with a rounded north-eastern corner. The field has a generally east facing aspect and lies close to the top of Tregear Beacon which is 219m high. The field is at its highest on its central western side, and falls towards its south-eastern corner. Access to the site during construction works will be from the north (figure 9).

The soils are recorded as well drained loams over Devonian mudstone, siltstone and sandstone.

The site lies approximately 220m to the east, and 7m lower than the top of Tregear Beacon. Views to the west of the proposed turbine site from ground level are closed off by the summit of the Beacon, and views to the south-south-west and north are restricted by the surrounding boundaries and topography. Views to the east are clear and, because of the height of the site, are largely open. They look over the southwest facing valley slopes of the River Kensey and beyond.

Topographically the landscape is undulating, with rounded, occasionally steep-sided hills and intervening valleys. It has patchy, occasionally quite heavy tree cover, much of it associated with historic boundaries, planted areas and areas that are too steep for alternative use, including the now disused railway line. The vast majority of boundaries within the project area support well established and fully mature trees, dense trimmed bushes and other vegetation including a range of wild flowers. The boundaries define

fields, often surround settlements and flank most of the lanes in the vicinity, many of which have cut down deeply into the surrounding landscape, reflecting continuous long-term use. Within the wider surrounding landscape some substantial boundary removal has taken place, but not on Treburrow Farm, (which has retained all but one field boundary).

The site proposed for the turbine is recorded in the Cornwall and Scilly Historic Environment Record (HER) as standing in a small pocket of Recently Enclosed Land, whilst part of the associated access track will run through 'Anciently Enclosed Land' of Farmland-Medieval and post-Medieval Enclosed Farmland types, that is, land where boundary arrangements were often substantially reorganised during the medieval and post-medieval periods, by the removal of some and the realignment of others. In this landscape type, the Medieval (or earlier) boundaries tend to be curvilinear, while post-medieval and subsequent forms are almost always straight (Cornwall Landscape Assessment 1994). In the case of the southern and western sides of the turbine field the 'new' boundaries enclosed previously areas of the formerly un-enclosed Tregear-down Beacon, characterised as Upland Rough Ground. Most of this more recently enclosed land will have seen continuous and varied use since the prehistoric period. Most boundaries are substantial and livestock proof.

There are no Grade I or II* Listed Buildings within a 1km radius of the site, but there is an important Scheduled complex of features 250m to the west at Tregear Camp, just beyond the summit of Tregear-down Beacon.

4 Project extent

The archaeological assessment was focussed on those heritage assets (whether designated or not) which might be physically impacted upon by activities associated with the erection of the wind turbine, including cable trenching, siting of temporary compounds, cranes or other equipment and any associated semi-permanent infrastructure.

The assessment also takes into account potential impacts on the settings of heritage assets (both designated and undesignated) within the viewshed of the proposed turbine site in line with paragraph 129 of the 2012 National Planning Policy Framework (NPPF), sections 16(2) and 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 Chapter 9, and English Heritage guidance relating to the setting of historic assets (2011) and on wind energy and the historic environment (2005), namely:

- Grade I, II* Listed Buildings, Scheduled Monuments, Registered Parks and Gardens and Conservation Areas – 7.5Km radius.
- Grade II Listed Buildings – 3km radius.
- Non-designated heritage assets – 1Km radius.

5 Designations

5.1 International

No international designations apply to the specific site.

There are no areas designated as a World Heritage Site within a 10km radius of the site.

5.2 National

No national designations apply to the proposed development site.

However, within the ZTVs for the proposed turbine there are:

- 19 Scheduled Monuments, including Tregear Camp and its various components to the immediate west of the turbine site. The remaining 18 are located within the wider 1 - 7.5km zone (see figures 13, 14-15).
- Seven Grade I Listed Buildings and 12 Grade II* Listed Buildings fall within the 7.5km zone, whilst there are 75 Grade II Listed Buildings within the 3km ZTV (see figures 16-20).
- Two Parks and Gardens fall within the ZTVs, one being associated with Penheale Manor lying the 3km zone and a larger one associated with Werrington Park spans the 7.5km zone (figure 25).
- There are Areas of Outstanding Natural Beauty (AONBs) at around 6km from the site to the south west (figure 23).

There are no nationally designated Battle Fields within 7.5km of the site.

5.3 Regional and Local

No national designations apply to the proposed development site, with the exception of the North Petherwin to St Clether Area of Great Landscape Value (AGLV), which spans the majority of the 1km zone (figure 25). Within the wider landscape there are a number of designated areas that fall within or partly within the 7.5km ZTV. These include:

- A further two AGLVs to the east and the south-east.
- Areas of Great Historic Value (AGHVs) between 7km and 7.5km to the south west (figure 22).
- An Area of Great Scientific Value (AGSV) from 6km outwards to the south west (figure 24).
- Sites of Special Scientific Interest (SSSIs) including Lidcott Mine within the 3km zone and Yeolm Bridge Quarry 7km to the east of the site. The principal area designated as a SSSI is to the south-west of the site just within the 7.5km area and extending beyond this (figure 22).
- St Stephens Historic Settlement is located just within the 7.5km radius zone to the east of the site; a further two in close proximity exist in Launceston and Newport (figure 24).
- There are many County Wildlife Sites (figure 23), including that of Tregear Down which lies to the immediate west of the proposed turbine site.

5.4 Rights of Way

There are no public rights of way within the immediate vicinity of the site, although a number do exist within the wider ZTVs.

The site itself is not registered as open access land under the CROW Act 2005, although it is close to an open access area located only one field away to the west of the turbine site and well within the 1km ZTV (shown as green on figure 2). This open access land contains the Tregear Camp Scheduled Monument complex.

6 Results of desk-based assessment

A process of historic map regression was undertaken. Norden's early 18th century map depicted natural landscape features such as major hills and rivers, together with churches and the houses of the wealthiest influential families in the area. Figure 3 shows an extract from this map, showing the churches at both Egloskerry and Tresmeer. By 1809 (figure 4) historic OS mapping showed major roads and most settlements in the area, along with prevailing hillslopes, major rivers and, in this

instance, Tregear Down indicated as a large area of stippled open ground. The approximate position of the site has been identified and marked with a point on figure 4.

The site has been marked more accurately on the Egloskerry Parish Tithe Map of c1840 (figure 5). It is shown as lying within what was then un-enclosed land, the field's eastern and northern boundaries being shown as extant and defining the then edge of enclosed land. The remnants of this unenclosed land was characterised as Upland Rough Ground (figure 8), and contains the Scheduled Tregear Camp (located just to the west of the site). Upland Rough Ground is often regarded as 'natural', but it is in fact the result of prolonged human activity. These areas often retain some of the best preserved prehistoric sites and landscapes.

The Tithe Map shows the sinuous northern and eastern boundaries of the proposed turbine field. These are partly mirrored by surrounding field boundaries to the north and east, all of which tend to follow the natural contours of the land. Together they indicate a field pattern typical of the medieval period (or possibly earlier given the proximity of Tregear Camp). The western and southern boundaries of the turbine field are quite different in character. They are straight, cross contours, and in the case of the western boundary run for a considerable distance north to south, cutting across previously largely unenclosed or peripheral land. Historic mapping shows that these boundaries were being established between 1840 and 1880, and that clearance or improvement of the turbine field along its western edge was still in progress as late as 1907 (figures 6 and 7).

Prehistoric activity is still traceable within the wider area through the presence of nearby rounds and enclosures. The nearest is less than 0.25km to the west of the site at Tregear Camp, where a possible Late Neolithic causewayed enclosure, a Bronze Age barrow, and an Iron Age/Romano-British round with probable internal structures form a complex of features (figures 14 and 15). Ground level at this complex is approximately 4m higher than the proposed turbine base on the western brow of Tregear Down Beacon. It is probable that associated features such as field systems, trackways or peripheral round houses exist around this prehistoric settlement as sub-surface archaeology.

Other prehistoric Scheduled Monuments exist within the wider area, including Bronze Age barrows at Carne Down on the slopes of Bodmin Moor, at Kernick and on Wilsey Down, while rounds/enclosures are known at Rings Wood Hillfort, Trethinna Camp and Warbstow Bury Camp (figure 13). All tend to be located on high ground and were designed to dominate the landscape of the day. As a result, many have the potential to be highly intervisible.

It is clear that all of the surrounding landscape was used in late prehistory, with river valleys and steep slopes providing valuable sources of timber for building and fuel, plus access to fishing, water birds and animal watering sites. High ground, found locally at Tregear Down, Laneast Downs and Red Down, (along with Bodmin Moor further to the south-west and within 10km of the site), would have provided extensive areas of rough summer grazing, sources of gorse for fuel, bracken for animal bedding, and the sites for ceremonial and funerary activity.

Evidence for early medieval activity has survived in the form of remnant field systems and boundaries, for example at Treburrow. Located to the north-east of the turbine site (figure 15). Landscape characterisation identifies over half of the surrounding 1km zone around the site as Anciently Enclosed Land of Medieval Farmland type, the next largest element of the landscape within this zone being identified as Post-Medieval enclosed farmland. The origins of both these types of enclosed landscape lie within the prehistoric period, additions and alterations being made throughout the earlier and later medieval periods (and more recently in to the Modern period). The significance of un-enclosed high ground as a source of summer grazing and fuel collection is clearly shown by the early routes running east from Tregear on to Tregear Down and

Tregearedown Beacon – see figures 5, 6 and 7) - and running west from Slipperhill up on to increasingly high ground nearby.

Broadly contemporary with this emerging and evolving landscape are some of the earlier medieval Scheduled wayside crosses. Two exist within 3km of the site at Tresmeer to the west-north-west and on Laneast Downs near High Hall to the south-west (figure 42), while further afield more crosses exist at Youlstone, Basil Farm and Lewannick. At Lewannick, there is in addition an early medieval memorial stone in churchyard. Many settlements in the immediate area have *tre* prefixes such as Tregeare, Treburrow, Tresmeer, Treluddick, Tremaine, Tredundle, Trebeath, Treburtle etc, indicating probable pre-Conquest origins as farming hamlets.

Medieval settlements within the immediate area of the site include, to the east, Newton (first recorded in 1327, the name (which has English origins) meaning 'new farmstead', Gover 1948); Slipperhill (first recorded in 1529 and again of English origin), and Egloskerry where there are references to a chapel and then a church from as early as c1145, the name meaning '*Church of Keri*' (a probable Latinised version of a female saint's name mentioned in Cornish legend - Padel 1988, 81). To the north is Treburrow, which was first recorded in 1523 as '*Gasburgh*' meaning 'at the hill' (another place name of English origin). To the north-west is Tresmeer which was first mentioned as '*Treguasmer*' in 1076 (a name of Cornish origin). To the west, the name Tregeare derives from the family name shared by Richard de Tregyer and John de Trengyer in 1284, the place name (from the Cornish) translating as 'farm by the fort' (Padel 1988, 165). To the south is Laneast, first recorded in 1076 as '*Chapel of Lanast*' and later as '*Lanyast*', incorporating the Cornish word '*lann*' meaning church site. Taken together, these place names are of interest, indicating an early borderland between Cornish and English speaking populations.

Many of the structures associated with this medieval and later expansion of settlement have been Listed (figures 16 and 17). A number of Grade I and II* Listed Buildings exist within the surrounding area including those associated with Penheale Manor – see figure 18), the Grade I Listed Wanwalo Church at Tremaine to the north-west (figure 40), and the Grade II* Listed Churches at Tresmeer (figure 39), Lewannick and Treneglos (figure 43). In addition there are a significant number of Grade II Listed Buildings in the landscape around the site, many of which are farmhouses, cottages or farming associated structures. Grade II Listed Buildings associated with Tregeare, and Badharlick and Egloskerry (and just beyond) are shown on figures 18, 19 and 31. Egloskerry's Church of St Keri is also a Grade II building, dominating the village and clearly visible from the site (figure 31 and 35).

Related to these medieval settlements, many of which began life as farmsteads and hamlets associated with early Christian sites, are the field systems which spread out into the landscape around them, incorporating and altering earlier boundaries or taking in new land from previously un-enclosed open ground. The construction of these boundaries was largely dependent on the re-use of stone from earlier boundaries or the clearance of naturally stony ground. The field pattern surrounding the proposed turbine site illustrates the ancient, piecemeal development which gives today's agricultural landscape its particular character, producing a combination of interconnecting slightly curvilinear and straighter short boundaries, with deeply cutting, sinuous lanes linking early settlements (figures 5-7 and 15). Occasional quarry and extractive pits provided additional, often better quality stone for construction work throughout the medieval and post-medieval period, and a number of these exist in the area, often excavated close to the buildings which utilised their stone.

In the late 19th century the North Cornwall Railway was constructed. Forced to follow a somewhat meandering route because of the local topography, this largely generated its own construction material through the creation of cuttings, frequently requiring the construction of bridges to allow continued access between settlements and their farm land. These bridges account for a number of the non-designated HER sites within 1km of the site. This railway line would for a while have dominated the local area, but

following its closure it has become most recognisable within the landscape as a frequently dense linear band of trees and occasionally waterlogged overgrowth.

The proposed turbine field's basic outline remains unchanged from that shown on the 1880 OS 25" to a mile map. Its northern and eastern boundaries pre-date 1840, when it was mapped as an already mature component of the local pattern of fields. This field pattern extended out to east, north and south, and was associated with Egloskerry, Tregear and other medieval settlements in the vicinity, including Penheale. Penheale Manor was largely re-built after 1572, but had medieval origins. It has seen subsequent 17th and 18th century additions and extensions. It had its gardens redesigned in the 1920s by Edwin Lutyens and Gertrude Jekyll, and is today a nationally designated grade II Park and Garden (figure 25).

The largely pastoral character of this landscape is clearly visible from aerial photographs of the area (figure 9) and field photographs (figures 26-43). Figure 9 shows the site (proposed turbine and track marked), together with Tregear Camp to the west and Slipperhill and other settlements to the east. Tree-lined field and deeply cutting road boundaries are clearly visible, whilst more recent alterations to the fieldscape through boundary removal are clearly visible as angular kinks in otherwise, long curvilinear boundaries. The 19th and 20th century rearrangements of previously open or peripheral enclosed land appear starkly rectilinear by comparison.

The analysis of historic aerial photographs undertaken as part of the English Heritage National Mapping Programme (figure 15) suggests that more in the way of field boundaries/remnant field systems and small enclosures formerly existed within the area. These could potentially date from the medieval or later prehistoric periods and may have associated elements, including areas of related settlement or residual scatters of finds sealed beneath or around them.

7 Results of site walkover

A site walkover was undertaken on 24th June 2013. The weather was bright, becoming cloudier as the day progressed. The proposed turbine field and the two northern fields through which the proposed access track will run, (linking the turbine to the road) were all under lush green pasture and grazed by cattle at the time of survey. The turbine field was highest along its western edge and lowest in its south-eastern corner. The access track will run steeply south from the lane up towards the turbine.

All three fields were surrounded by tall, substantially built, livestock-proof earth and stone boundaries. Most had an approximate 2m width at their bases and all exceeded 1.75m in height. Proposed access will make use of existent gated entrances, few of which retain original granite gateposts. The boundaries in general support many trees and bushes and a range of wild flowers. Mechanical cutting of bushes and smaller trees including hawthorn, combined with the leaving of other large and mature trees including oaks has given the area a diverse and attractive appearance in keeping with its AGLV status. The highest western boundary of the turbine field had (in comparison to the lower boundaries) only sporadic, small and windswept trees standing above the main trimmed body of the boundary, reflecting the exposure experienced by their high setting. The substantial range of species and the scale of mature trees, particularly to the north and east of the turbine is typical of a landscape classified as Anciently Enclosed Land of Medieval Farmland type. Each boundary is flanked by post and barbed wire fencing, which has the effect of keeping them livestock-proof while minimising livestock damage and allows a range of plants and birds to flourish. However, it has reduced the need for structural maintenance or repair work to the boundaries themselves. As a result of ongoing root damage, collapse and occasional burrowing, a few of the boundaries are suffering from benign neglect.

The walkover did not identify any un-documented archaeological features within either the route of the access track or within the proposed turbine field itself. The turbine field

is additionally known to have been mechanically cleared of stone down to a depth of about 0.3m.

The surrounding topography and the height of the boundaries and surrounding vegetation dictated what was and what was not visible from the site at ground level. It was found that despite the elevated site a number of restrictions affected views.

- Looking due west from the proposed site of the turbine, views were blocked by Tregear Down Beacon whose summit is located just 100m to the west. This rises 7m above the site proposed for the wind turbine, and in conjunction with the substantial height of the western field boundary blocked visibility beyond the Beacon to any of the land west of the site (figure 30). A considerable number of sites and settlements exist within this western area, including Tregear Camp, Tregear, Badgall, Tresmeer and Treneglos etc.
- Looking north from the proposed site for the turbine (figure 27) views were partially blocked by the northern field boundary, as well as the boundary that radiates from the northeast of the field. In addition the immediate contours in this direction continue at much the same height as the site and do not drop sufficiently to allow views over the top of the boundaries from ground level.
- Looking north-east from the proposed site of the turbine, views are significantly blocked by adjacent boundaries, but they do open out to some degree, allowing views out across the areas occupied by Trebeath (figure 33) and towards Penheale Manor with its Grade I, II* and II Listed Buildings and its grade II Park and Garden. This site is mainly visible as a heavily tree planted area, surrounded by large fields. Buildings at Penheale Manor could not be identified because of the tree cover.
- Looking east from the proposed site of the turbine (figure 28) the views are more expansive. This is largely due to the valley of the River Kensey which runs north-west to south-east, much of its course flanked by the now disused and largely dismantled North Cornwall Railway line. The turbine will be located high up on the river's western valley edge, overlooking the largely tree filled lower parts of the valley and the views out to the east, east-north-east and east-south-east, including those above and beyond the valley edge. A number of houses and settlements could be seen (figures 32 and 33) including Treburrow (grade II Listed Building) and Tor Wood.

Egloskerry was clearly visible 2km away, despite not being the nearest settlement. Parts of the settlement could be seen from ground level at the turbine site, including its Grade II Listed church and some of the other Listed Buildings (figures 20 and 31). Much of the intervening land between the site and Egloskerry is lower, meaning than lines of sight are uninterrupted.

- Looking south-east (figure 28) from the proposed site of the turbine the views look out over Red Down and beyond. A substantial number of trees line Badharlick road and the surrounding field boundaries. There are a number of pockets of woodland in this general area.
- Looking east-south-east from the proposed site of the turbine, the views are again hampered by level ground and densely tree-lined boundaries. Most boundaries are late in date and straight, running along the top of those parts of Tregear Down that have been enclosed. Distant views across Laneast Downs towards Bodmin Moor were possible (see figure 29), but from ground level much of the intervening landscape was out of sight.

8 Results of viewshed analysis

The Zone of Theoretical Visibility (ZTV) has been mapped to a distance of 10km from the site, with radial zones delineated at 1km, 3km and 7.5km radii. The ZTV mapping

shows that many areas of the surrounding 10km area will theoretically be intervisible with parts of the turbine mast, its hub and its rotating blades. However, this coverage is patchy, with notable gaps towards the east and west beyond 7.5km, and to the south between approximately 3km and 6km from the site. Trees aligned broadly north to south along the immediate western edge of Tregear-down Beacon will have an affect on all views to and from the site for areas to the west of the site.

Intervisibility and relate impacts will diminish with distance from the turbine, and will at many sites be blocked by intervening buildings or trees. However, trees and buildings can and do get removed over time, and such limitations on intervisibility should be treated as potentially temporary, particularly where these are the only factors restricting impacts on sensitive designated archaeological sites, and especially where such trees are within commercial plantations .

8.1 The 1 km ZTV

See Figures 8, 14, 17 and 21

The wind turbine will be theoretically visible from around 60% of this zone, with the exception of small areas to its west, south and north.

The zone is predominantly made up of Medieval Farmland, but with significant pockets of Post-Medieval and Modern Enclosed Land to the north and south of the turbine, plus Upland Rough Ground mainly to the west, and small elongated stretches of plantation and scrub. Ornamental land (parkscape) associated with Tregear House is found to the west of the site.

A single Scheduled Monument complex exists within this zone, close to the western side of the turbine field. Although from ground level there was no direct intervisibility between the site and the monument complex, the ZTV mapping shows that the upper turbine mast, hub and blades will without doubt be visible and close to this designated prehistoric complex (figures 30 and 37).

There are no Listed Grade I or II* Buildings within this zone. There are, however, a small number of Grade II Listed Buildings associated with Tregear settlement beyond Tregear Camp to the west (see figure 38 which shows the view across the Listed village pump towards the tree topped site), with another to the northeast at Treburrow (see figure 34, which shows a general view along the lane through Treburrow up towards the site). All of these sites fall within the ZTV. There are in addition 29 sites identified within the HER within the 1km ZTV, most of which are not designated. These include the Newton Railway line, a Wesleyan Chapel and associated elements, quarries, cottages, farmhouses, garden features, hamlets and settlements, cropmarks and field systems. All are of local importance.

For those dwellings with clear views from the southwest facing slopes of the Kensey valley, the turbine will be clearly visible. Treburrow, which includes a Grade II Listed Building, has some views upslope towards the site through gateways and gaps in the boundaries of the nearby lane (figure 34). Although these views are not pronounced, it is suspected that views from the buildings themselves, which are on private land, would be more marked. At the foot of the slope down from the site, the slate roofs of Treburrow were clearly visible (figure 32).

For sites and houses to the west of the site, views at ground level were greatly restricted because of the nearby summit of the Beacon. From Tregear, positioned just beyond the western slopes of Tregear-down, topography and the wooded top of the beacon prevent views of the turbine site (figure 38). However, it is possible that the moving blades of the proposed turbine will be sufficiently high to be visible above the tree line from this direction.

The 1km area additionally includes parts of the North Petherwin to St. Clether (AGLV) Area of Great Landscape Value.

8.2 The 1km to 3km ZTV

See Figures 14 and 17.

The wind turbine will theoretically be visible from around 70% of the 1 - 3km radius zone surrounding the proposed site. The ZTV is limited by local topography, particularly along valleys and hillsides not facing the site, or where it is blocked by areas of higher ground, for example to the south of Red Down, to the west of Laneast Downs, or to the north of Three Hammers, Penrose or Penheale – all of which have north or east facing views away from the site.

However, large parts of the remaining area fall within the mapped ZTV and will be intervisible with all or part of the turbine. For example, notable parts of Laneast Downs are higher than both the site and Tregear-down Beacon. Views from the road cutting across the top of Laneast Downs and past the Grade II* Listed High Hall Farmhouse and the nearby Scheduled High Hall wayside cross directly overlook Tregear-down Beacon (figure 42).

Parts of Egloskerry village, also 2km from the site, will clearly be intervisible with the turbine (figures 31 and 35), particularly for all those buildings located on its western side, including the Grade II Listed Church and other buildings in its vicinity. However, a number of Listed Buildings on its eastern side will have had their views of the turbine partially blocked by other elements within the settlement. Despite the numerous boundary and tree-lined lanes between the site and Egloskerry, the settlement will be intervisible with the proposed turbine because of its high location and the intervening lower ground.

Badharlick, broadly positioned between Egloskerry and the site, lies just over 1km away from the turbine site. It, too, will be partially intervisible with it, and contains a number of Grade II Listed Buildings. Here a combination of boundaries, mature trees, and a lack of public access made the potential for setting impacts difficult to ascertain. It is likely that there will be seasonal views, particularly from the upper floors of some Listed Buildings back towards the turbine.

This zone contains a number of potentially intervisible designated sites, including two Scheduled wayside crosses at Tresmeer (in the churchyard), and at High Hall (see above). Listed Buildings within the zone include the Grade I Listed Church of St Wanwalo at Tremaine (figure 40), and Penheale Manor. Grade II* Listed Buildings within the zone include the Church of St Nicholas at Tresmeer (figure 39), Higher Penrose, Treludick, High Hall (figure 42) and buildings associated with Penheale Manor. Grade II Listed Buildings are scattered across the 1 - 3km zone (see figure 17).

Associated with Penheale Manor is its Grade II designated Park and Garden, while much of the area falls within an AGLV (the North Petherwin to St Clether Area of Great Landscape Value).

8.3 The 3km to 7.5km ZTV

See Figures 13 and 16.

The wind turbine will be theoretically visible from approximately 40% of the 3 - 7.5km zone. A significant east to west swathe of the approximate 3-5.5km zone will not be visible with the site because of intervening high ground at Laneast Downs, which rises to 240m OD, and which as a result overlooks the site area. The southern part of this zone consists of land which rises gently towards Bodmin Moor, whose fringes are 6km away from the site.

To the east, just beyond the boundary of the 7.5km zone is Launceston, whilst St Stephens falls just within the zone. Neither settlement falls within the ZTV, although their associated Conservation Area spans the 7.5km zone boundary and is just included within the 7.5 - 10km ZTV. The dissected topography dictates the very patchy

character of the ZTV within this 3 - 7.5km zone. Trees and intervening buildings will significantly reduce any visibility of the site from more distant sites.

Scheduled Monuments within this zone are concentrated around high ground at Warbstow Bury Camp and on Bodmin Moor to the west, at Trethinna Camp to the south and at Rings Wood Hillfort to the south-east. Grade I and Grade II* Listed Buildings are focussed around Yeolmbridge to the east, Lewannick to the south and Treneglos to the west. Views towards the site from Treneglos, 4.5km from the proposed turbine site, were very difficult to determine. Almost no publicly accessible high ground could be found within the village. Views from the church (figure 43) showed that at this location trees, a farmhouse and farm buildings blocked all views from ground level towards the site.

Grade II Listed Buildings have not been plotted within this zone, but they are likely to be numerous.

This zone also contains an existing wind farm, located to the west of the site and just to the north of St Clether. The construction of a wind turbine at Rowland's Corner may raise issues of potential cumulative impacts on the settings of designated sites.

8.4 The 7.5km to 10km ZTV

See figures 11, 12 and 22-25.

The ZTV suggests that only a very limited (approximately 15%) part of this zone will be intervisible with the site. Approximately 10% of the southern part of this zone within the ZTV would be theoretically intervisible with the blade tips only.

8.5 Scheduled Monuments within the 7.5 km ZTV

See Figure 13, 14 and 15.

There are 19 Scheduled Monuments within 7.5km of the proposed wind turbine site at Rowland's Cross which fall within its ZTV. These sites are listed below in broadly chronological order.

Within the 7.5km ZTV

- 1011781 - Platform Cairn with rim bank and central cairn and a secondary cairn on the summit of Carne Down
- 1005468 - Barrow group consisting of 3 barrows in a line in Wilsey Down Forest
- 1003268 - Round Barrow NE of Kernick
- 1011726 - Co-axial field system, hut circle settlement, cairnfield and land boundaries on Carne Down
- 1003118 - Ring bank in the NW corner of Lewannick Plantation
- 1004240 - Entrenchment on N side of Bray Down
- 1006710 - Warbstow Bury camp
- 1007294 - Downinney Pound
- 1004462 - Trethinna Camp
- 1004243 - Rings Wood Hillfort
- 1006649 - Cross SW of Youlstone
- 1018002 - Wayside Cross SW of Basil Farm
- 1007757 - Wayside cross NW of Lewannick church
- 1016365 - Early Christian memorial stone in Lewannick Churchyard
- 1004656 - Blaunder's well near Dingleys

- 1003268 - Yeolm Bridge

Within the 3km ZTV

- 1014222 - Wayside Cross in Tresmeer Churchyard
- 1007954 - Wayside cross on Laneast Downs SSW of High Hall Farm

Within the 1km ZTV

- 1006711 - Tregear Camp (which according to the HER includes a possible Neolithic Causewayed Enclosure, a Bronze Age barrow, an Iron Age/Romano-British round, a medieval-medieval/post-medieval beacon and a post-medieval reservoir – possibly the circular 'pool' area currently being used by livestock).

Some of these potentially intervisible Scheduled Monuments consist of structures such as wayside crosses or the memorial stone in Lewannick churchyard, whose settings are inherently local. These were never designed or intended to be viewed from within the surrounding landscape, and impacts on their settings have been discounted. Two Scheduled Monuments of this 'local' type are within the 3km radius of the site at High Hall and Tresmeer, whilst others are located within the wider zone out to 7.5km from the site.

In contrast, many rounds, camps and enclosures and all hillforts, along with single and grouped barrows and cairns were intended, when constructed, to have far-ranging settings. The vast majority of these sites lie between 3km and 7.5km from the site, predominantly located on high ground, for example at Warbstow Bury, Trethinna, Rings Wood and on the Bodmin Moor foothills where a cairn field with adjacent field system, and hut circle settlements is located 7km from the location proposed for the wind turbine. Tregear Camp however, lies very close to the proposed turbine site, well within the 1km ZTV (see above).

Although there is likely to be a degree of intervisibility between some of these sites and the proposed wind turbine, in most cases views will be either relatively distant or locally blocked by vegetation or structures. For example, Rings Wood Hillfort, as its name suggests is completely shrouded in woodland, particularly on its western side, blocking any views of the site. Given the topography of the site selected for the wind turbine, strongly negative impacts on the settings of most of these Scheduled Monuments are not expected to occur, with the exception of Tregear Camp where the upper section of the mast, its hub and its blades are likely to be very visible.

8.6 Registered Parks and Gardens within the 7.5km ZTV

See Figures 25.

There are two Registered Parks and Gardens within the ZTV out to 7.5km of the site. The nearest is at Penheale Manor, which has a Grade II Park and Garden. This has views out to the north and north-east. It is partially overlooked by the proposed wind turbine site, but views back from the garden to the site are likely to be at least seasonally restricted because of intervening tree growth (see figure 36 which looks out from high ground at North Petherwin across Penheale towards the site).

A second Grade II Registered Park and Garden exists at Werrington Park. This is of largely 18th century date and has expansive views towards the south and east. It is 7.5km from the site and only very small areas fall within the ZTV. The density of trees making up the Park and Garden and the considerable distance between the proposed turbine and this designated park will prevent any negative impacts on its setting.

8.7 Grade 1 and II* Listed Buildings within the 7.5km ZTV

See Figure 13, 17 and 18.

Seven Grade 1 and 12 grade II* Listed Buildings fall within the 7.5km ZTV. These include a variety of buildings, ranging from the religious (a single Grade I and three

Grade II* churches) to grand homes such as that at Penheale Manor with its associated Listed walled gardens and gate-piers, to substantial examples of early farmhouses such as High Hall. Yeolm Bridge at Yeolmbridge which crosses the River Ottery is both a Grade I Listed Building and a Scheduled Monument. It was built in 1350 and is considered one of the oldest and best of Cornwall's bridges.

The majority of these sites, despite falling within the 7.5km ZTV, will not be substantially affected in terms of visual impact because of a combination of distance from the site, tree cover and tall boundaries and intervening buildings within building complexes.

Grade I

11429	Penheale stables
1142836	Cullacott and attached open-fronted cartshed
1142888	Church of St Wanwalo (Tremaine)
1142958	Penheale gatehouse
1160121	Penheale Manor
1160167	Gate, gate-piers and garden wall to NE of Penheale Manor
1161009	Yeolm Bridge

Grade II*

1142793	High Hall Farmhouse
1142820	Milltown House and front garden walls
1142920	Cottages and wash-house (part Penheale Manor)
1142950	Treludick
1142959	Gate-piers and walls (NW of Penheale Manor)
1159988	Gates, gate-piers, walls and railings to front of Treludick
1160373	Higher Penrose
1160463	Winnacott
1161299	Church of St Nicholas (Tresmeer)
1277508	Church of St Martin (Lewannick)
1310214	Church of St Gregory (Treneglos)
1365636	Walled garden & pavilions west of gatehouse and Penheale Manor

Note – some Listed Buildings have multiple entries in the GIS to distinguish separate elements, though have single List numbers.

8.8 Conservation Areas within the 7.5km ZTV

See Figure 22 and 36.

Four conservation areas fall within the 3 - 7.5km zone around the site. Launceston is the largest of these and is 7.5km from it, and like Hicks' Mill is partially within the ZTV. Polyphant and Altarnun are within this zone, but are not within the ZTV.

Only a small area at the southern end of the Launceston and St Stephens Conservation Area falls within the ZTV, and at a distance of some 8.3km from the site. The density of intervening housing and other town structures to the north and west will block any intervisibility between the turbine and the Conservation Area.

The Hick's Mill Conservation Area is small and spans the valley of the River Inny. The portion that falls within the ZTV is just less than 5km away from the site. Trees will locally restrict intervisibility between the site and Hick's Mill, as will other intervening trees and structures closer to the site. These intervening features, in conjunction with the undulating topography are sufficient to significantly limit any potential visual impact resulting from the construction of the turbine.

8.9 Grade II Listed Buildings within the 3km radius ZTV

See Figure 16, 17-20.

Within the 3km radius ZTV zone there are 75 grade II Listed Buildings of various types and dates. These are as follows:

- One church - Church of St Keria (Egloskerry);
- 19 headstones - associated with the Churches of St Nicholas (Tresmeer), St Keria and St Wanwalo (Tremaine);
- Two stone crosses - associated with Church of St Nicholas and High Hall Cross;
- Two Methodist church/chapels with associated Sunday Schools and/or gate-piers and walls;
- Three at Trehummer including the farmhouse and associated structures, including the north eastern entrance gate-piers and flanking walls and the southern entrance gate-piers and flanking walls;
- Four at Fennell House and associated structures including a further house to the south, a granary to the east and a pigsty to the north east;
- Nine cottages (including a row of cottages and two adjoining cottages);
- Five structures at Penheale Manor and Penheale Barton, with associated structures including a lodge, gate-piers and flanking railings at its southern entrance, and an outbuilding and a dovecote with flanking walls in the stable yard;
- 13 farmhouses and associated structures, including garden walls, and an outhouse with associated shippon;
- Two structures at Treludick, including associated structures such as stables, and pig houses, pump house and a butter well;
- Seven structures at Tregear House, including associated structures such as a gazebo, the south Lodge, the east Lodge, the eastern entrance gate-piers and walls, the northern entrance gateway-piers and walling, and the stables and screen walling;
- One building at Higher Penrose;
- Two milestones;
- Two boundary stones;
- One bridge;
- One post office;
- One village pump.

Note – some Listed Buildings have multiple entries in the GIS to distinguish separate elements, though have single List numbers.

Impacts on the settings of the majority of these grade II Listed Buildings are judged likely to be negative minor. Many were only ever designed to have localised settings, these include mile and boundary stones, out buildings, the post-office and a village pump and the more humble buildings within farm complexes.

Within 1km of the site there are eight Grade II Listed Buildings within the ZTV. The main group of seven are located in and around Tregear, while the remaining example is located at Treburrow Farmhouse. A further four lie just beyond the 1km zone and are largely associated with Tregear House and gardens. Tregear House was, when built, planned to have extensive views and a deliberately designed setting. As a result clear views of the moving parts of the turbine above the Tregear Down Beacon woods may result in a negative impact on this group of designated structures. Many of the trees within the Tregear Estate fall under a Tree Protection Order, suggesting that the visual shield they create should not be short term.

Within the wider 3km ZTV are further groupings of Grade II Listed Buildings. These include structures at Egloskerry, Badgall, Tresmeer, Tremaine, Treburtle, Trehummer, Treludick, Trebeath and Penheale. Many of these appeared from the ZTV mapping to be vulnerable to impacts on their settings. However, intervening trees and, occasionally other buildings, in conjunction with the undulating topography considerably reduces the predicted visual impact for this group.

8.10 Historic Environment Record sites within the 1km ZTV

See Figures 17, 18 and 19.

The ZTV mapping suggests that at least 90% of the landscape within a 1km radius of the site will be intervisible with all or part of the proposed wind turbine. Within this zone, the Cornwall and Scilly Historic Environment Record (HER) records 22 intervisible sites of all dates. The undesignated sites consist of the following:

Prehistoric/Romano-British

MCO17252	Tregear – Iron Age/Romano-British round/early medieval settlement (first recorded 1150)
MCO45663	Badharlick field boundary – cropmark

Early medieval

MCO45664	Tregear field boundary – cropmarks on Tregear Down
MCO45666	Trebeath field system – cropmarks
MCO45667	Trebeath extractive pit/hollow – five cropmarks (possibly post-medieval elements)

Medieval

MCO15913	Newton settlement
MCO16784	Slipperhill settlement
MCO17038	Tor Cottages (first recorded settlement 1523 as 'Totorre' meaning 'at the tor')
MCO17107	Treburrow settlement
MCO45655	Newton extractive pit/quarry – cropmark
MCO45662	Badharlick field boundary

Post-medieval

MCO11761	Tregear country house – site of a former house predating that now at Tregear
MCO22546	Tregear Quarry (site of)
MCO22564	Tor-wood quarry
MCO32613	Tregear Wesleyan Cemetery
MCO45665	Extractive pit – cropmark

MCO53685	Lanzion Farm Bridge - carrying the line of the North Cornwall Railway
MCO53689	Treburrow Bridge - carrying road over the North Cornwall Railway
MCO53690	Treburrow Castle Creep - bridge carrying road over the North Cornwall Railway
MCO55717	Kensey River Bridge - carrying the line of the North Cornwall Railway
MCO55720	Newton Railway - line of the North Cornwall Railway (opened between 1892-99, closed 1966-67)

Sites for each period tend to have a distinct character. The two prehistoric sites include the earliest origins of today's Tregeare village - a possible round/enclosure and a cropmark boundary. The three early medieval sites consist of remnant field boundary elements and possibly extractive works. The six medieval sites include four settlements, a quarry and a field boundary. The eleven post-medieval sites include five railway related features - bridges and the line of the track itself. In addition there are three extractive/quarry related features; the site of a former house (the precursor to Tregeare House) and a possible pond feature with waterlogged interior located within the Scheduled Tregeare camp area.

Given the natures of these sites and the undulating topography, in conjunction with the density of tree and bush topped boundaries or planted areas and woodland, the proposed turbine will have only very limited impacts on their settings. It should be borne in mind however that the loss of trees or boundaries within this landscape would potentially have a significant impact on the degree of intervisibility between these sites and the wind turbine.

Almost without exception, all lanes in the area are either deeply cut or flanked by considerable sized and heavily vegetated boundaries, rendering the proposed wind turbine generally invisible from public access routes, except through occasional gateways. Some exceptions will occur along those roads which cross high downland (for example on Laneast Downs), where trees are few and far between and boundaries are smaller and more recent. Here, uninterrupted views overlook the approximate site and the surrounding area.

9 Field verification of ZTV

(Figures 26-43)

The viewshed mapping and potential impacts were ground checked from a number of locations, though these were subject to constraints on public access. Views out from the site towards key heritage assets were checked from the application site itself. True levels of intervisibility were impossible to determine from ground level given that the turbine has not yet been constructed, but the general degree of openness of views out from and back to the site could be assessed.

Where possible, photographs were taken from selected key (publicly accessible) designated sites within the surrounding landscape back towards the site, and from the site out towards them. The sites visited included all churches within a 3km radius of the site including those at Egloskerry, Tremaine and Tresmeer, plus Treneglos. In addition the recording of views back to the site was attempted from (or overlooking) concentrations of designated sites at Tregeare and Tregeare House, and at Penheale Manor and associated sites. In most cases the local density of trees and the height of intervening boundaries severely reduced or completely prevented views to and from the site. Egloskerry was the only church to have areas with near unbroken views of the proposed turbine location.

Views from surrounding high ground, for example at Laneast Downs (overlooking High Hall Farmhouse and High Hall wayside cross) to the south-west, from Pipers Pool to the south (looking along Tregear Downs) and from North Petherwin to the north-east (overlooking Penheale Manor and its associated elements) were all checked. This allowed the location and setting of the proposed wind turbine to be determined, but also confirmed that direct views from Penheale were unlikely because of the local tree cover, and that views from Tregear and Tregear House were considerably reduced by intervening trees on Tregear Down.

The trees on Tregear Down to the immediate west of Tregear Camp Scheduled Monument complex largely blocked all views of the site from the north-west, west, south-west and some areas to the south back towards the site. Views to and from Tregear Camp were checked. Neither the Camp (even from the top of its nearest earthworks) nor the site is intervisible from ground level - partly because of the intervening field boundary on the west side of the turbine field, but mainly because of the additional 7m height of the intervening Tregear Down Beacon hill. However, should the turbine be constructed, it would be clearly visible from this site.

Field verification largely confirmed the viewshed mapping for high areas in the vicinity, but found that in many cases dense tree cover and the substantial height of boundaries significantly blocked any views of the site from areas of lower ground. However, buildings directly opposite the site, located on the southwest facing slope of the Kensey valley and at Egloskerry were found significantly vulnerable to impacts from the turbine. No accessible vantage points could be found with direct views towards the site from the Grade II Listed properties at Treburrow or Badharlick. These are the nearest Listed Building sites to the proposed turbine site. It is likely that there will be setting impacts on both sites given that they were partially visible from the location proposed for the wind turbine.

10 Policies and guidance

The following section brings together policies and guidance (or extracts from these) used in the development of the assessment and its methodology.

10.1 Cornwall Council Renewable Energy Planning Guidance

Note 3: The development of onshore wind turbines 2013

Historic Environment

The Council will normally require robust and comprehensive heritage statements to be submitted as part of the application validation process and to satisfy NPPF and the requirements of the Cornwall Council local validation list – robust because they are analytical, succinct and authoritative; comprehensive because they address the guidelines.

The assessment of impacts needs to be considered with great care at the pre-application stage, and the Historic Environment Advice Team should be consulted at an early stage so that they can advise applicants as to the scope of assessments, whether in exceptional cases they may not be required, and what mitigation measures might be proposed where necessary. These assessments are still likely to be required even if an Environmental Impact Assessment screening process does not lead to an EIA; it is not appropriate to undertake these assessments following determination of planning applications although where archaeological sites are likely to be affected planning consents will oblige developers to fund archaeological mitigation in line with NPPF P141 and the emerging Cornwall Local Plan.

The NPPF Section 12 (particularly paragraph 128) makes it clear that applicants must demonstrate what is significant about the site and its setting, whether their proposals will harm the historic environment, and to what degree. These assessments need to tell

us more than we can already glean from simple consultation with the Cornwall and Isles of Scilly Historic Environment Record – they need to consider the further potential for what may lie under the surface, and/or what the wider visual impacts might be on historic buildings, upstanding archaeological monuments and historic landscapes. Briefs for archaeological and setting assessments are available from Cornwall Council Historic Environment Advisors as a part of the Council's pre-application services.

The council will use the guidance set out in the checklist below to determine when applications should be supported by assessments for:

- *Direct impact - whether through archaeological assessments and/or geophysical surveys. The Council will expect such assessments to be undertaken to the professional standards equivalent to those set out by the Institute for Archaeologists and by appropriately qualified and experienced expertise.*

And/or

- *Impact on the setting of designated heritage assets - and whether English Heritage should be consulted in accordance with statutory requirements. In all cases the council will expect assessments to follow the guidance set out in 'The Setting of Heritage Assets' and be undertaken by appropriately qualified and experienced historic environmental professionals. Not all designated assets have settings to which a wind turbine, even at close distances, would represent an unacceptable impact, but some types of asset, particularly those with a strong presence in the landscape, are especially vulnerable.*

Such assessments are distinct from those undertaken as part of Landscape and Visual Impact Assessments because they depend on specialist consideration of the specific significance of each heritage asset. For taller turbines which require a ZTV to assist with the assessment of landscape impacts this information should be provided to those undertaking setting assessments. The siting guidance provided on page 16, 17 and 18 of this guidance note contains further useful advice.

These requirements might apply not only to designated sites – assessments may sometimes be appropriate for undesignated sites of significance, and there may be occasions when applications affect previously unrecorded sites that the Council (or English Heritage) assess as potentially archaeologically sensitive.

If planning applications are approved within known archaeologically sensitive

locations, or which affect the setting of heritage assets, the Council will set conditions for mitigation measures that are proportionate and appropriate, including, for instance, professional archaeological monitoring of groundworks.

However, without adequate assessment, overly burdensome conditions might be imposed or the application simply recommended for refusal on the basis of a lack of information on which to judge it.

Checklist of planning application information requirements.

Domestic <18m *An archaeological assessment will be required when sites recorded on the Cornwall HER are directly affected.*

An assessment of the settings of designated heritage assets will be required when Scheduled Monuments, Listed Buildings, Conservation Areas, the World Heritage Site, Registered Battlefields or Registered Parks and Gardens lie within 3km.

Very Small 18-25m *An archaeological assessment will be required when sites recorded on the Cornwall HER are within 250m of the site.*

An assessment of the settings of designated heritage assets will be required when Scheduled Monuments, Listed Buildings, Conservation

Areas, the World Heritage Site, Registered Battlefields or Registered Parks and Gardens lie within 3km (18m to tip) or 4km (25m to tip).

Small 26-60m

An archaeological assessment will be required when sites recorded on the Cornwall HER are within 500m of the site. Those in 'Anciently Enclosed Land' with HER sites within 500m will also require a geophysical survey.

An assessment of the settings of designated heritage assets will be required when Scheduled Monuments, Listed Buildings, Conservation Areas, the World Heritage Site, Registered Battlefields or Registered Parks and Gardens lie within 4km (25m to tip) or 10km (60m to tip).

Medium 61-99m

All proposals will require an archaeological assessment. Those in 'Anciently Enclosed Land' with HER sites within 500m will also require a geophysical survey.

An assessment of the settings of designated heritage assets will be required when Scheduled Monuments, Listed Buildings, Conservation Areas, the World Heritage Site, Registered Battlefields or Registered Parks and Gardens lie within 10km (60m to tip) or 15km (100m to tip).

Large 100-150m

All proposals will require an archaeological assessment. Those with HER sites within 500m will also require a geophysical survey.

An assessment of the settings of designated heritage assets will be required when Scheduled Monuments, Listed Buildings, Conservation Areas, the World Heritage Site, Registered Battlefields or Registered Parks and Gardens lie within 15km (100m to tip) or 20km (150m to tip).

10.2 National Planning Policy Framework 2012

The following paragraphs within the above document frame planning policy relating to the Historic Environment and are germane to this assessment:

128 *In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.*

129. *Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.*

132. *When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.*

133. *Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:*

- *the nature of the heritage asset prevents all reasonable uses of the site; and*
- *no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and*
- *conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and*
- *the harm or loss is outweighed by the benefit of bringing the site back into use.*

134. *Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.*

135. *The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.*

139. *Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.*

10.3 Former Cornwall Structure Plan

The following policies in the Cornwall Structure Plan relate to the historic environment are currently used to guide responses to applications.

Policy 1

'Development should be compatible with:

The conservation and enhancement of Cornwall's character and distinctiveness;

The prudent use of resources and the conservation of natural and historic assets;

A reduction in the need to travel, whilst optimising the choice of modes, particularly opportunities for walking, cycling and the use of public transport;

Through developing the principles of Policy 1 it is intended to integrate environmental values with land use and transport policies, achieving patterns of development that reflect strong environmental protection and stewardship of resources.'

Policy 2

'Throughout Cornwall, development must respect local character and:

- *Retain important elements of the local landscape, including natural and semi-natural habitats, hedges, trees, and other natural and historic features that add to its distinctiveness;*
- *Contribute to the regeneration, restoration, enhancement or conservation of the area;*
- *Positively relate to townscape and landscape character through siting, design, use of local materials and landscaping.*
- *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.'

10.4 Hedgerow Regulations

Under the current, 1997 Hedgerow Regulations, owners wishing to remove all or part of a hedgerow considered to be historically important must notify the Local Planning Authority (LPA). Criteria determining importance include whether the hedge marks a pre-1850 boundary, and whether it incorporates an archaeological feature. The LPA may issue a hedgerow retention notice prohibiting removal.

11 Likely impacts of the proposed development

11.1 Types and scale of impact

Two general types of archaeological impact associated with wind turbine developments have been identified as follows.

- **Types of impact, construction phase**

Construction of the wind turbine could have direct, physical impacts on the buried archaeology of the site through the construction of the turbine foundations, through the undergrounding of cables, and through the provision of any works compound, together with any permanent or temporary vehicle access ways into and within the site. Such impacts would be **permanent** and **irreversible**.

- **Types of impact, operational phase**

This wind turbine might be expected to have a visual impact on the settings of some key heritage assets within its viewshed during the operational phase, given its height (34.4m), the topography of the site (212m OD) and the nature of the local landscape. Such factors make it likely that the development would have an impact on the Historic Landscape Character. These impacts would be **temporary** and **reversible** should the turbine subsequently be dismantled and not re-powered or replaced, but for the duration of its lifetime it would be a feature within the landscape and would incorporate moving elements, which would enhance its visibility.

11.2 Scale and duration of impact

The impact of the wind turbine on the historic environment may include positive as well as adverse effects. For the purposes of assessment these are evaluated on a seven-point scale:

positive/substantial

positive/moderate

positive/minor

neutral

negative/minor

negative/moderate

negative/ substantial

Negative/unknown is used where an adverse impact is predicted but where, at the present state of knowledge, its degree cannot be evaluated satisfactorily.

The assessment also distinguishes where possible between **permanent** and **temporary** effects, or between those that are **reversible** or **irreversible**, as appropriate, in the application of the scale of impacts.

- **Potential and residual impacts**

Potential adverse impacts may be capable of mitigation through archaeological recording or other interventions. In the assessments forming Section 11.3, where appropriate, both 'potential' and 'residual' impacts are given; that is, expected impacts 'before' and 'after' such work, principally in relation to the development phase. A proposed mitigation strategy is outlined below in Section 12.

11.3 Assessment of impact

The height, colour and moving parts of the turbine are likely to make it a distinctive feature within the local landscape, with the potential for it to intrude into some key views of and from some of both the designated and undesignated sites and structures.

11.3.1 Impacts on designated sites in the 3-7.5km zone

Impacts on the settings of designated heritage sites between 3km and 7.5km from the proposed turbine site have been assessed as **neutral** to **negative/minor** overall. This grading is based on a combination of distance, site characteristics, importance and level of visibility. The visual impacts will be **temporary and reversible**.

- Scheduled Monuments within this zone are of various date and type (see section 8.5 and figures 13-14). These have been given a group impact grading of **negative/minor** depending on known or likely intervisibility. Barrows and hillforts were, when built, specifically designed to dominate the local landscape, and as such any modern dynamic object set on a tall tower will clearly potentially have an impact on their intended setting.

However, the distance of most of these monuments from the proposed turbine will reduce this impact, as will intervening trees. For example most sites to the west (including Warbstow Bury Camp) and to the south-south-west (including the complex of Scheduled sites on Carne Down) are shielded from views of the turbine field by the woodland located on Tregear-down Beacon, whilst both Trethinna Camp (to the south) and Rings Wood Hillfort (to the east) are both largely protected from views to the site by woodland to their north and west respectively. It should be noted, however, that it has not been possible to categorically predict the likely visibility of the proposed turbine blade tips over the top of trees. It is felt that often these will be visible because of the height of the turbine and its setting within the surrounding landscape.

- Grade I and II* Listed Buildings within this zone (see figure 16) include those at Yeolmbridge (Grade I Yeolm Bridge, Grade II* Milltown House and garden walls) and Cullacott (Grade I fifteenth century hall house) in the far east, and at Lewannick (Grade II* Church of St Martin) in the far south. In both cases the distance between the site and these structures is considered too great for any major impacts to ensue. Impacts on them have as a result been graded as **neutral**. To the north, just over 3km away from the site is the Grade II* Listed Winnacott Farmhouse and walls. The distance, in conjunction with the intervening trees, boundaries, farm buildings, and low (120m OD) setting significantly reduce inter-site visibility. The impact has been graded as **neutral**.

The Grade II* Listed Church of St Gregory at Treneglos is located about 4km to the west-north-west of the site. Views from the churchyard towards Tregear-down Beacon were locally blocked by trees and by parts of a Grade II Listed farmhouse and related buildings (figure 43). It is possible that the turbine may be seasonally visible from the church which stands at 210m OD. The setting impact for this site has therefore been graded as **negative/minor**.

- While there are a number of Grade II Listed Buildings (see figure 17) within the 3 - 7.5km zone of the ZTV, many are shielded from any view of the proposed wind turbine by trees, boundaries or other buildings, or have relatively limited settings. The visual impact of the turbine on these sites has been graded as **neutral**. For sites where increasing distance from the proposed turbine or where intervisibility is possible, a **negative/minor** level of setting impact has been identified.
- The proposed turbine will have only a limited impact on designated areas. A single Registered Park and Garden spans the boundary of the 7.5km ZTV at Werrington Park, located to the east of the site. Because only a small part of the site falls within the ZTV and because of a combination of distance and intervening trees and boundaries, setting impacts have been graded as **neutral**.

11.3.2 Impacts on designated sites within the 1-3km zone

Impacts on the settings of designated sites within the 1km to 3km ZTV zone have been graded as **neutral** to **negative/minor** overall, with the exception of those of designated sites at Egloskerry and Badharlick, which have been graded as **negative/moderate**. Elements at Penheale may be adversely affected and so these setting impacts have been graded **negative/minor** to **negative/moderate**. Not all parts of the house, garden and ornamental pools fall within the ZTV. This grading is based on a combination of distance, site characteristics, importance and level of visibility.

- Two Scheduled Monuments lie within the 1 - 3km ZTV; both are wayside crosses (figure 14). One has possibly been re-located to a vicar's grave in Tresmeer churchyard, and the second is close to High Hall on Laneast Downs (figure 42). In both cases these monuments were not designed to have extensive settings, but instead were local focal points within the medieval landscape. In neither case was the site of the turbine clearly visible, although in both cases the moving parts of the turbine may be visible. The impact on their settings has been graded as **neutral**.
- Nine Grade I and II* Listed Buildings lie within the 1 - 3km zone (figure 16). Tremaine's Church of St Wanwalo and Penheale Manor and gatehouse are all Grade I buildings, while Grade II* buildings are found at Tresmeer Church of St Nicholas, High Hall Farmhouse, Higher Penrose, Treludick and, at Penheale, a walled garden and pavilions, plus a line of three cottages. Some seasonal views from Treludick and from some of the Penheale Listed Buildings may be possible given the higher, visually dominant position of the proposed turbine, despite the quantity of trees in the intervening area. Figure 36 was taken from high ground at North Petherwin and shows the topographic, tree-rich setting of the Penheale complex of high grade Listed Buildings in relation to the site. The potential visual impact for Penheale has been graded as **negative/minor** to **negative/moderate**, given Penheale's historic integrity and designated setting.

The two listed Churches at Tremaine and Tresmeer were both visited. Views from Tresmeer show that the turbine has the potential to have a **negative/moderate** impact given that there are clear views over low lying recently built housing towards the site (figure 39). It is unclear how much of the turbine will be visible over the wooded hilltop from this site. As with Penheale, the distance between the proposed turbine and the church is relatively short at only 2km. From Tremaine the distance is greater but the main road, although tree-lined, is sited close to the line of sight between the proposed turbine and the churchyard (figure 40). The setting impact on the church has been graded as **negative/minor**. At High Hall Farmhouse views were difficult to judge given that it lies in a low position and has the Tregear-down Beacon trees between it and the site. It is felt likely that there will be some intervisibility, but that it might be limited (figure 42). Setting impacts have, as a result, been graded

negative/minor, although removal or thinning of these trees may increase this to **negative/moderate**.

- A number of Grade II Listed Buildings lie within the 1 - 3km ZTV (see figures 17 and 18). The majority are farmhouses, farm buildings and cottages, including those at Trehummer, Badgal, Badharlick and Egloskerry (figure 20), Fennell House, Treludick and Tregear House with associated gazebo, stables and screen wall, and some gate piers and walling (figure 19). Many of the Listed Buildings have only local settings, including milestones, boundary stones and out buildings, while others have a slightly wider setting within the landscape, including a Methodist chapel with associated Sunday school. The majority of these have limited or very limited settings and the impacts have been graded as **neutral – negative/minor**, although views from some of the larger or non-publically accessible sites may be more markedly affected, for example at Tregear House. Many of them are likely to be seasonally shielded from views of the proposed wind turbine by trees, vegetated boundaries.

The fifteenth century Listed Church of St Keria at Egloskerry, with its original Norman wall and transept has one of the most important settings to be considered, because it was designed to dominate the local landscape and to act as a focal point extending well beyond the village itself. This, along with many of the Listed Buildings at and around Egloskerry will be intervisible with the site. Badharlick too is intervisible, includes several Listed Buildings and is nearer than Egloskerry to the proposed turbine site (figures 20 and 31). The construction of the wind turbine is considered likely to result in **negative/moderate** impacts on the settings of both sites.

11.3.3 Impacts on archaeological sites within the 1km zone

Impacts on the settings of designated and non-designated sites within the 1km zone of the site have been broadly graded as **neutral** to **negative/moderate**, with the potential effect on Tregear Camp recorded as being **negative/substantial**. This grading is based on a combination of distance, site characteristics, importance and level of intervisibility or the likelihood that the wind turbine will intrude into key views of the designated sites. The impacts will be **temporary and reversible**.

- There is one Scheduled Monument complex within this zone located at Tregear Camp. It includes a possible Late Neolithic causewayed enclosure, a Bronze Age barrow, and an Iron Age/Romano-British round with external earthworks and probable internal structures. Tregear Camp is located less than 250m away on the western brow of Tregear Beacon, and is set 4m higher than the turbine site. The intervening Tregear Beacon rises 7m above the height of the proposed turbine. Given the 34.4m height of the turbine, this means that in excess of 27m of the turbine height would be directly intervisible with the Scheduled site (figures 15, 30 and 37). Neither the topography nor the single earth and stone boundary between the two sites will provide any significant visual blocking. The setting impact for this site is graded as **negative/substantial**.
- There are no Grade I or Grade II*Listed Buildings within the 1km zone (see figure 16 and 17).
- A small number of Grade II Listed Buildings (see figure 17) exist within the zone. The farmhouse at Treburrow, located north-east of the site is set in a little west facing hamlet arranged along a narrow lane that aligns broadly with the site. Impacts on this site have been graded as **negative/minor** to **negative/moderate**. A group of Grade II Listed Buildings lie within Tregear (figure 19). At ground level most of these appear to be shielded from direct views with the site because of the intervening slope and intervening trees on top of the hill. A number of these buildings have restricted local settings, such as

the village pump and the boundary stone and impacts on these features will be **neutral**. However, views from top windows of, for example, the Lodge House may occur and setting impacts at this site are therefore assessed as **negative/minor**.

- There are 18 un-designated sites within the 29 recorded within the HER within this zone (see figure 21). Un-designated prehistoric and early medieval sites consist of boundary cropmarks, plus five possible extractive hollows centred around Trebeath; medieval sites include the farming hamlets of Newton, Slipperhill and Tor Cottages plus a quarry cropmark at Newton and a field boundary west of Badharlick; while post-medieval sites include quarries, the route of the North Cornwall Railway and four associated bridges. The large majority of these sites have no more than very local settings and impacts on them are assessed as **neutral**. However, for those settlements with medieval origins, particularly Slipperhill (which is just at the foot of the hill, and possibly Newton), setting impacts resulting from the construction of the wind turbine have been graded as **neutral to negative/minor**. This level of impact is lower than might be expected for such very close sites because of the density of local trees and the heights of the boundaries flanking lanes and fields, in conjunction with the steep angle of the hill on which the turbine is proposed for construction; all will combine to limit clear views of it.
- It should be stated that the access track may also be a clearly visible feature for many of the sites located both within and beyond the 1km radius line.

11.3.4 Direct impacts on archaeological sites within the development area

There is the potential for physical damage to occur during the construction phase to below ground archaeology in the area of the turbine, or land affected by the undergrounding of cabling. The use of tracked vehicles during the construction of the turbine should negate the need for an excavated track. Historic mapping confirms that both the turbine field and the northern two fields of the access track fall within what is shown on the c1840 Egloskerry Tithe map as un-enclosed land, land of a type which has high potential for the survival of early archaeological features. The access track will also traverse two probable medieval boundaries. Although making use of current gateways, these gateways are unlikely to require widening given their current width. Since they may already be wider than the originals (because of modern farming practices) or the current gateways may not be in original locations, there may be scope for medieval boundary features to survive beneath the access track at these points. It is also possible that some considerable soil creep has occurred following ground clearance or ploughing of these steep fields, resulting in the sealing of old land surfaces or perhaps cut features associated with the Tregear Camp complex of features, such as tracks or early field system elements radiating out and down slope, or even peripheral external settlement elements.

On the basis of current knowledge the potential impacts on below ground archaeology in the area proposed for the wind turbine has been graded as **negative/unknown**. Should any prehistoric subsurface remains be encountered the impact would become **negative/minor** or **higher** dependant on the significance and scale of disturbance. In addition any negative impacts would be both **permanent and irreversible**.

Geophysical survey within the proposed development area would greatly assist in determining the potential direct impacts on sub-surface archaeology at this site. It is considered unlikely that any significant subsurface features exist along the steepest route of access. The potential for features in the area of the turbine itself and the less steep areas of the access track is considered to be higher. However, mechanical stone picking down to a depth of about 0.3m may have reduced this potential.

Note: The National Mapping Programme has plotted a number of sites and anomalies within the 1km zone (see figure 15), a number of these lying only 500m away. These

include a number of linear and curvilinear alignments, plus quarried or pitted areas and possibly small enclosures. These suggest that there is the potential for other unknown features to exist within the immediate area, particularly given the extreme proximity of Tregear Camp with its possible Neolithic, Bronze Age and Iron Age/Romano-British elements. Scales of impact on any below ground archaeology within the site will vary with the degree of significance of individual features. They will also vary according to the proportion of any feature or site affected by the construction operations.

11.3.5 Impacts on Historic Landscape Character and other landscape designations

A 34.4m high to blade tip wind turbine installation at Rowland's Corner can be predicted to have a **negative impact** on the local landscape in terms of its historic character. This negative impact will persist throughout the operational phase of the turbine, but will cease following its end of use and subsequent dismantling.

- There will be some significant visual impact on the Historic Landscape Character (HLC) of the area, characterised as Anciently Enclosed Medieval Farmland and Post-Medieval Enclosed Land, though the turbine is proposed within a single field of Modern Enclosed Land adjacent to Upland Rough Ground (figure 8). The turbine's visibility within the ZTV will vary with topography, distance and intervening obstacles. Within the 1km radius the impacts are graded as **negative/moderate**. This grading will reduce with distance from the site.
- No landscape designations cover the landscape within the 1km ZTV, with the exception of the North Petherwin to St Clether Area of Great Landscape Value (AGLV). Within the 3km radius is the designated Penheale Park and Garden. Beyond this, a considerable number of landscape designations extend to some degree into the 7.5km ZTV. These include areas of AGHV and Conservation Areas (see figure 22). Areas of AONB (figure 23), AGSV and Historic settlements (figure 24) and additional AGLVs and Werrington Park and Garden to the east also exist. Impacts on these designations are likely to be slight.

11.3.6 Potential cumulative impacts

Throughout this report impacts have only been assessed for the single turbine proposed, but it is known that a number of applications are being considered within the surrounding area for the construction of both solar farms and other wind turbines. There are also extant turbines within the wider area including that shown on figure 26 and the wind farm 3.6km west-south-west of site to the north of St Clether. As a result it is likely that some degree of cumulative impact will ensue.

12 Mitigation strategy

In a case where the finalised site design would seem likely to result in unavoidable physical impacts on below-ground or above ground sites (whether designated or not), a brief for work to mitigate these impacts would be prepared by Cornwall Council's Historic Environment Advice Officer (East), setting out its scope. A Written Scheme of Investigation (WSI) to meet the brief would need to be prepared and agreed to establish and direct a programme of mitigating archaeological work.

At this site there is the possibility that as yet unrecorded remains exist below ground, which may be directly impacted upon by the proposal to construct a wind turbine. No advance evaluative trenching or palaeoenvironmental sampling has been recommended on the basis of this assessment. A range of means to mitigate against the potential impacts identified in this assessment may be considered by the Historic Environment Planning Advice Officer, who may choose to recommend one or more of the following.

Geophysical survey

The Historic Environment Planning Advice Officer may require a geophysical survey of the proposed site to provide sufficient information to determine the potential for sub-surface impacts on archaeological features before a recommendation for the granting of planning permission could be made.

A geophysical survey would be intended to locate any major sub-surface anomalies such as archaeological pits, ditches, floor surfaces, burnt deposits or stone built remains such as walling. With archaeological interpretation, the resulting plans of a geophysical survey can be very useful in predicting potential significant remains, allowing for the re-drafting of development plans in order to minimise damage or to put in place plans for dealing with the potential costs of excavation and post-excavation works.

A geophysical survey can also usefully identify more recent features such as sub-surface cables and water pipes, allowing for either avoidance through re-location of the turbine or particular care during works in the case of anomalies lying close to the proposed works. The results of the geophysical survey may be affected by the terrain and past mechanical stone picking.

The undertaking of a geophysical survey prior to machine work on site often significantly reduces un-expected costs through the re-location of any intrusive works away from particularly sensitive areas.

Site redesign

Should the archaeological assessment, walkover, viewshed analysis or geophysical survey be deemed to have identified significant features, re-design of the proposed turbine location might be requested by the Historic Environment Planning Advice Officer.

Watching brief

The Historic Environment Planning Advice Officer may require an archaeological watching brief, which would be undertaken during all topsoil removal within the area of the turbine footprint and the access track.

A watching brief would require the presence of an archaeologist during the mechanical removal of topsoil with a toothless grading bucket. The archaeologist would monitor the depth of topsoil strip, record all deposits uncovered following standard IfA practice, using context numbered notes, drawings and photographs, collect all finds and excavate all archaeological features as and if required by hand. Soil samples would be collected as necessary for analysis and potentially for scientific dating.

This approach provides for preservation by record of upstanding or buried archaeological features or artefacts and can reduce impacts on the archaeology of the site to significantly lower levels. Any remaining physical impacts would be **permanent** and **irreversible**.

13 References

13.1 Primary sources

Cornwall County Council 2005 aerial mapping of Cornwall.

Ordnance Survey, 1809, *1 inch mapping* First Edition (licensed digital copy at HE)

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*

Tithe Map and Apportionment, c1840. *Parish of Egloskerry* (licensed digital copy at HE)

13.2 Publications

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

English Heritage 2005, *Wind energy and the Historic Environment*

English Heritage 2011, *The setting of Heritage assets: English Heritage guidance*

Gascoyne's 1699 Map of Cornwall

Gover, J.E.B. 1948. *Place-Names of Cornwall*.

Herring, P. 1998, *Cornwall's historic landscape: presenting a method of historic landscape character assessment*, Cornwall Archaeological Unit

Martyn's 1748 Map of Cornwall

National Soil Resources Institute Soil Systems Group 2004. GIS data held by Cornwall Council. Data copyright © Cranfield University

Norden, J. 1724, *Map of Cornwall*, reprinted University of Exeter 1972

Padel, O.J. 1985, *Cornish place-name elements*, Nottingham

Padel, O.J. 1988, *A popular dictionary of Cornish place-names*, Penzance

13.3 Websites

<http://www.heritagegateway.org.uk/gateway/English> Heritage's online database of Sites and Monuments Records, and Listed Buildings.

14 Project archive

The HE project number is **PR146267**

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.Q-T\ROWLAND'S CORNER 2013
3. English Heritage/ADS OASIS online reference: cornwall2-153969

This report text is held in digital form as: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites R\ROWLAND'S CORNER, Egloskerry



Fig 3 Extract from John Norden's early 17th century map showing Lesnewth Hundred, and the churches at Tresmeor and Egloskerry.



Fig 4 Extract from the OS First Edition One Inch Map c1809, marking the approximate position of the site. The two adjoining circles probably represent Tregear Camp.



Fig 5 Extract from the Egloskerry Tithe Map, c1840, showing the approximate site.

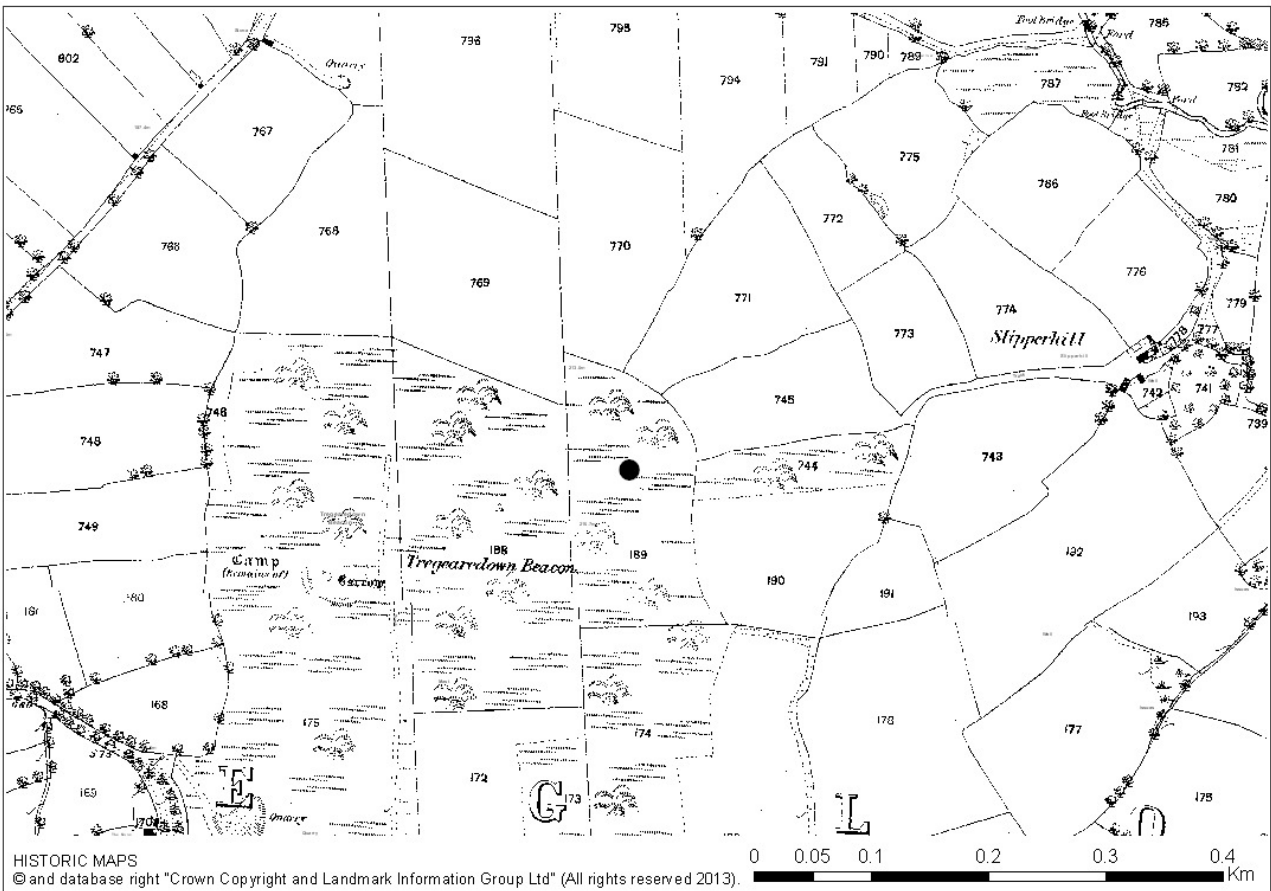


Fig 6 First Edition of the Ordnance Survey 25 Inch Map, c1880.

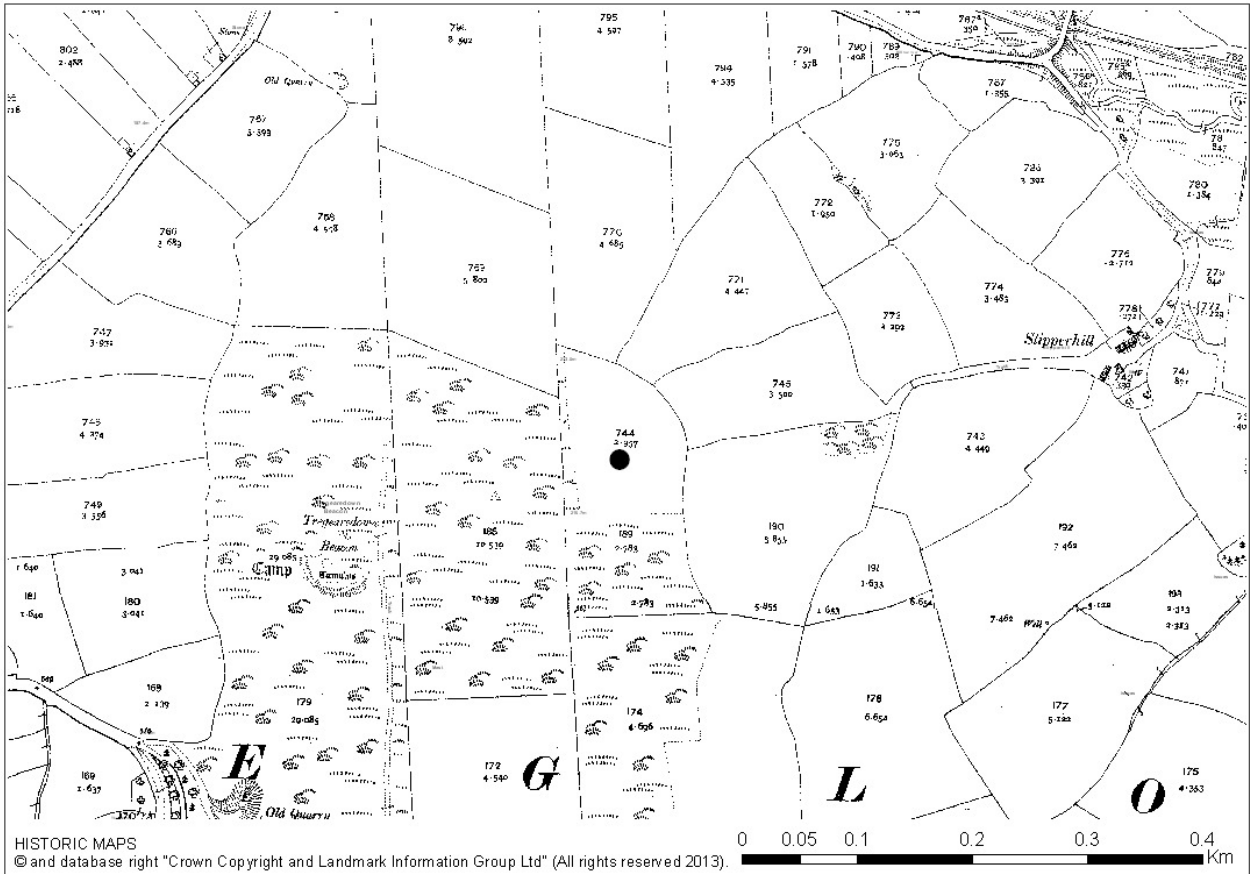


Fig 7 Second Edition of the Ordnance Survey 25 Inch Map, c1907.

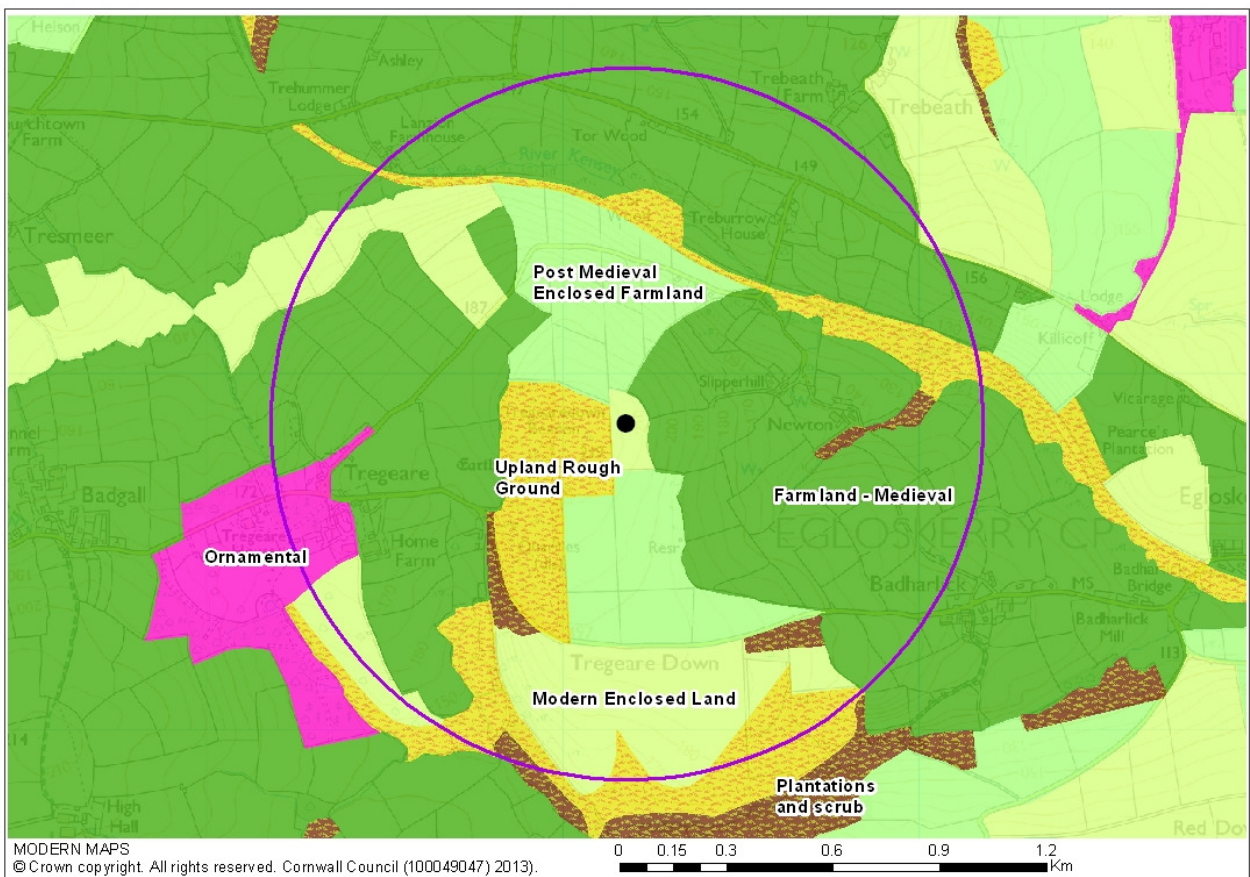


Fig 8 Historic Landscape Characterisation map for the site vicinity.

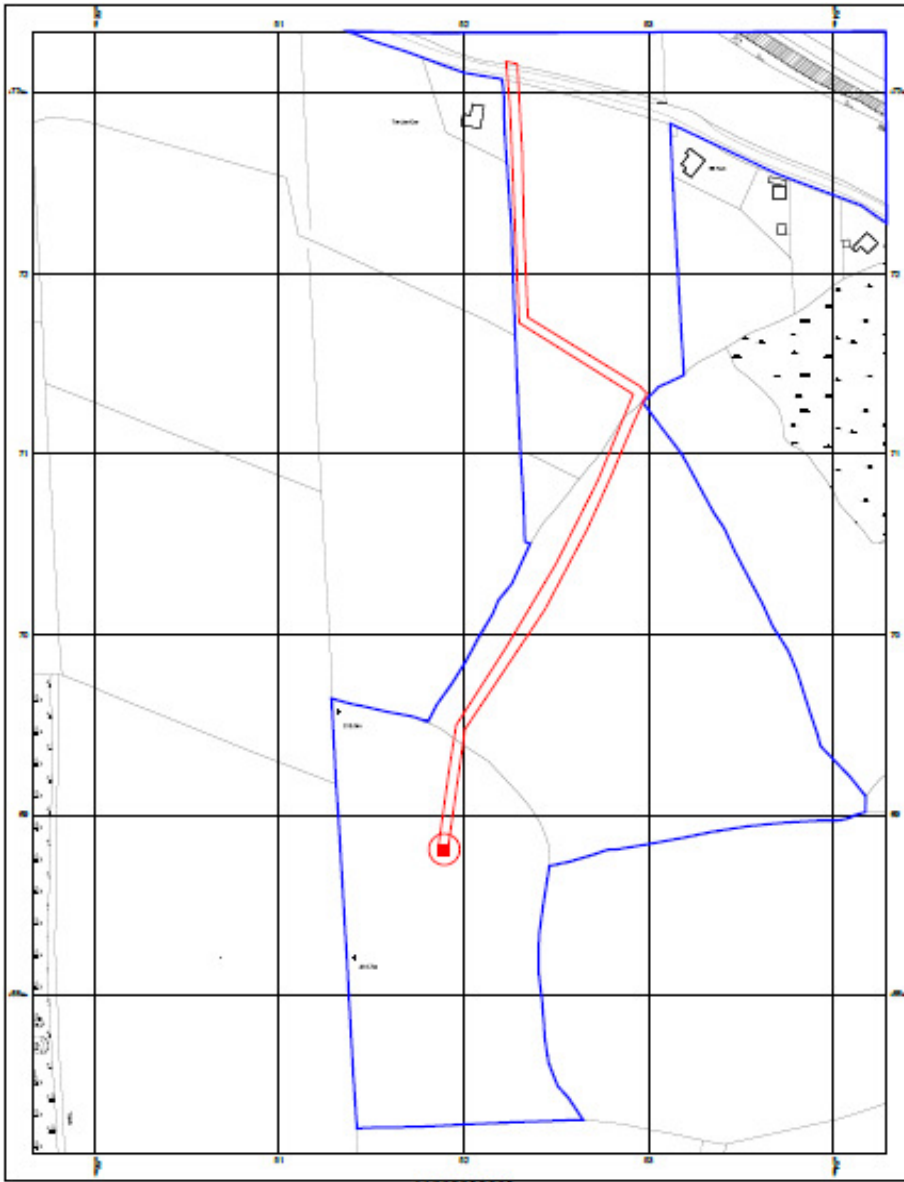


Fig 9 Plan showing proposed turbine location and access route during construction (as supplied by the client).



Fig 10 Aerial photograph of the site vicinity (taken in 2005).

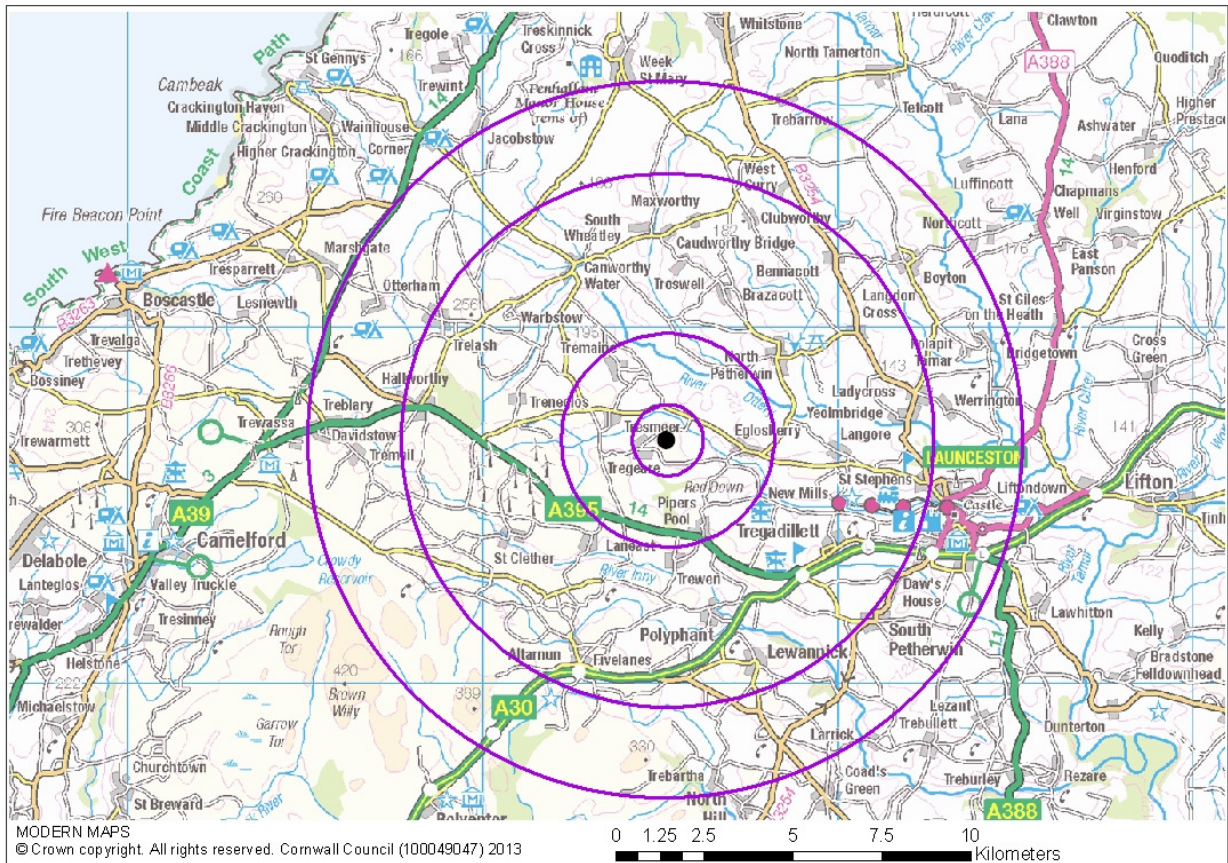


Fig 11 The site (centred) with radiating 1, 3, 7.5 and 10km diameter zones marked.

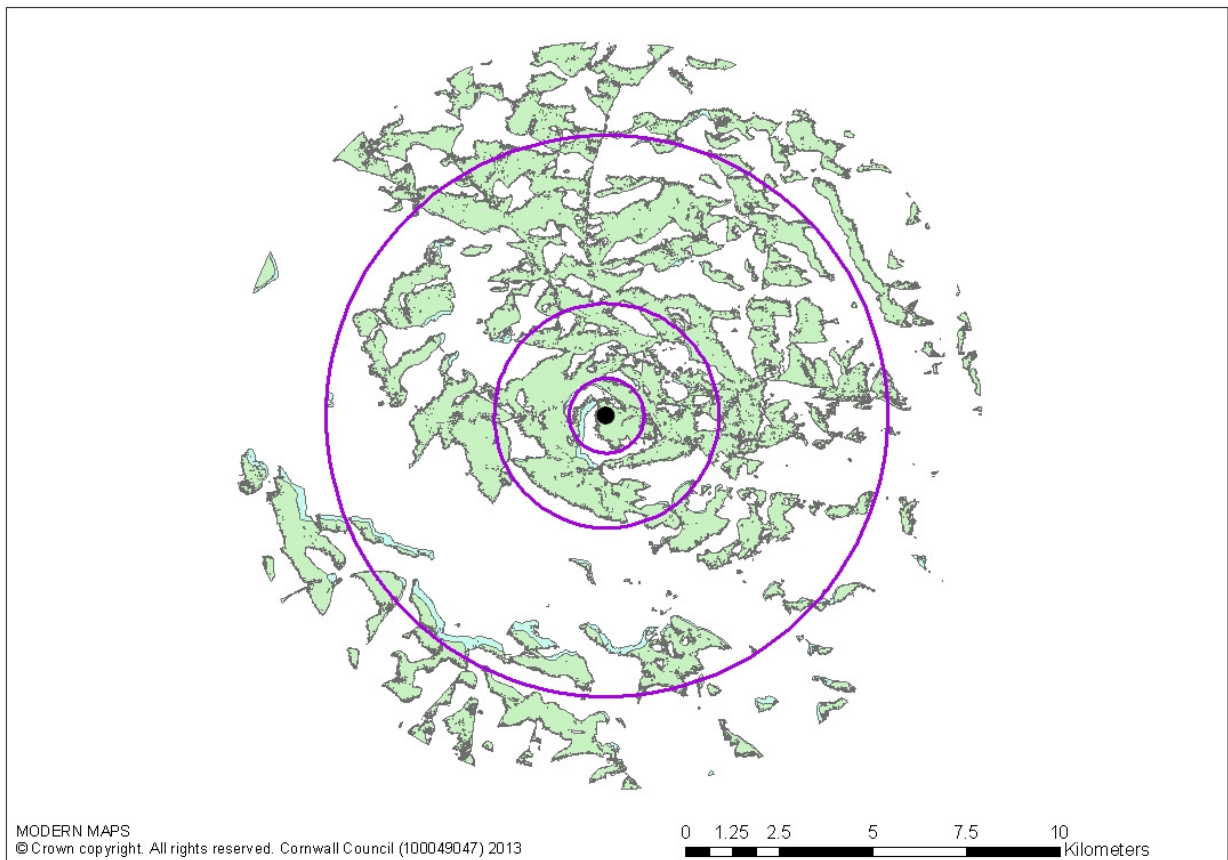


Fig 12 The site with ZTVs shown for the hub (green) and the blade tips (jade) within a 10km radius.

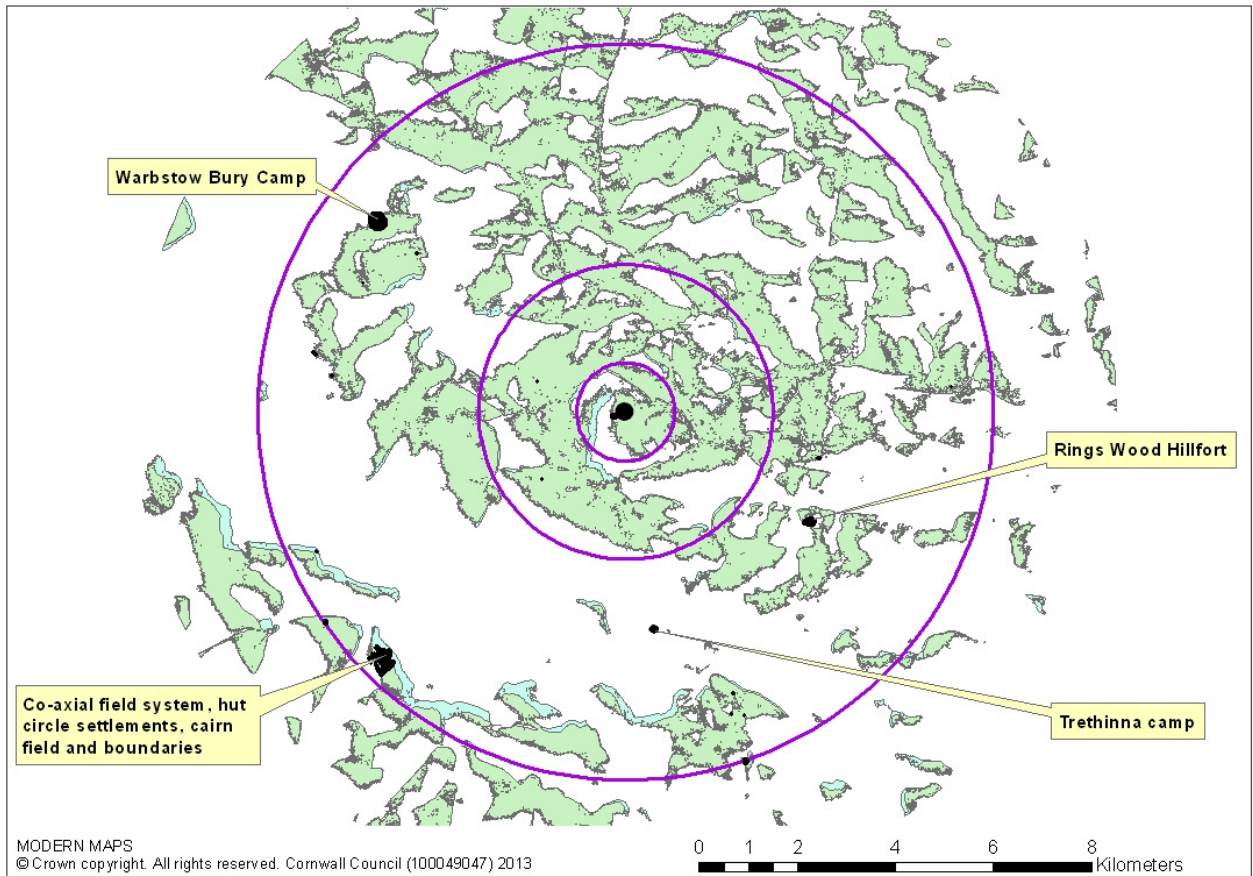


Fig 13 All Scheduled monuments within the 7.5km ZTV.

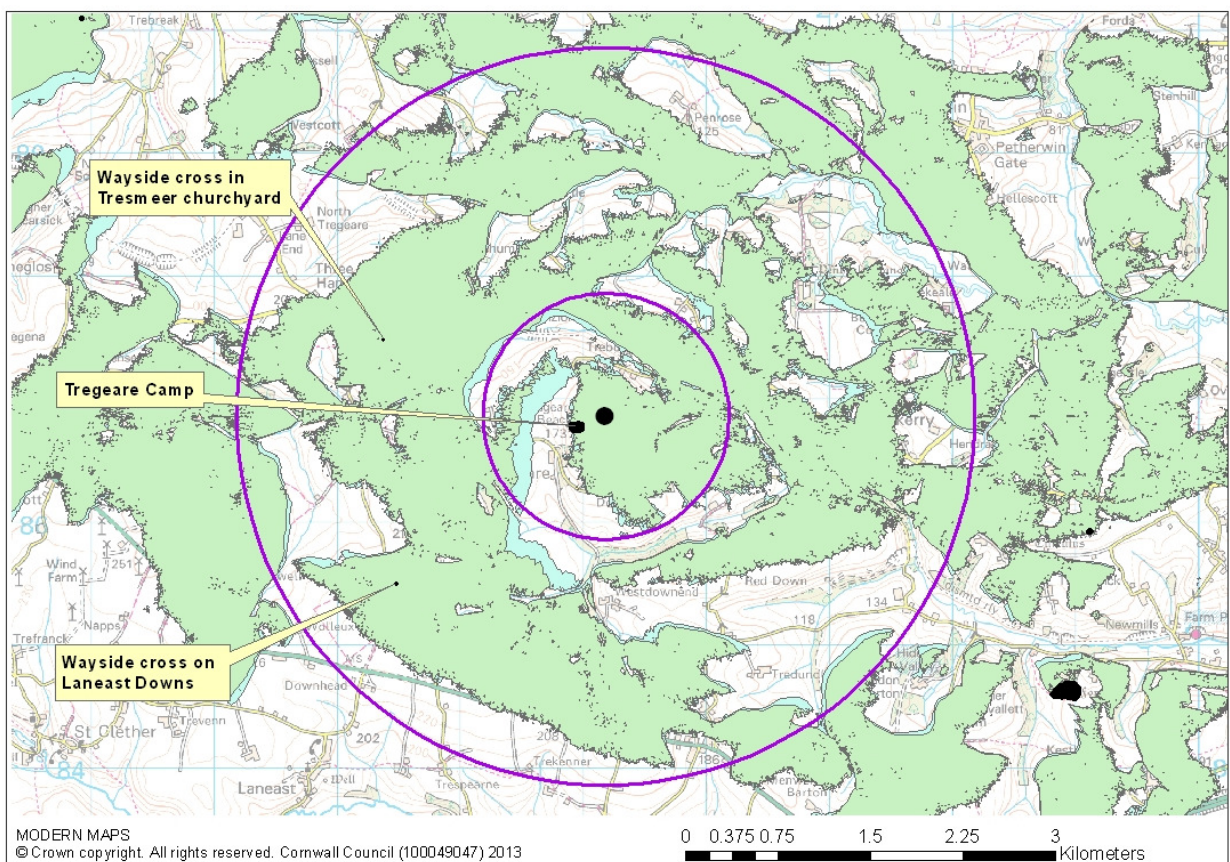


Fig 14 Scheduled Monuments within the 3km ZTV, also showing Rings Wood hillfort (larger) and Kernick round barrow (smaller) to the east.

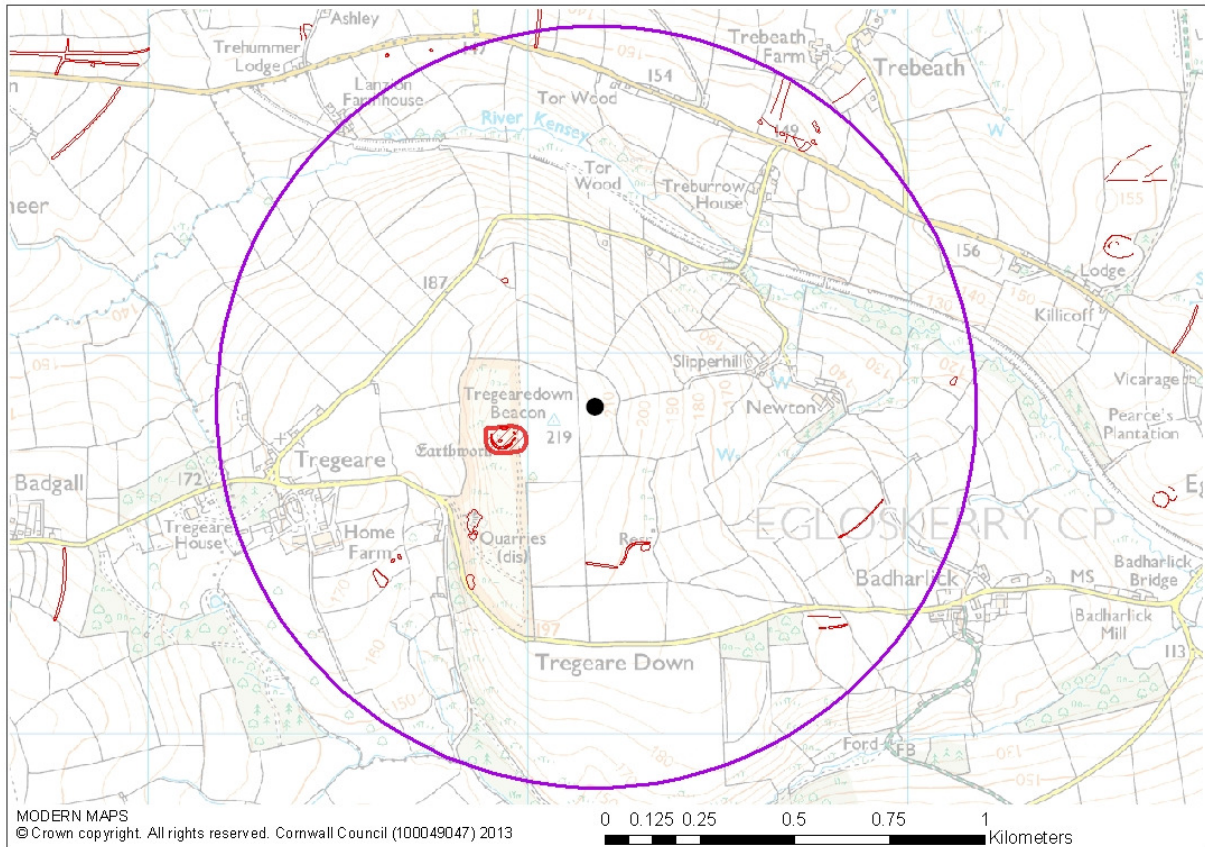


Fig 15 Tregear Scheduled Monument group, plus all EH / NMP identified features within a 1km radius of the site.

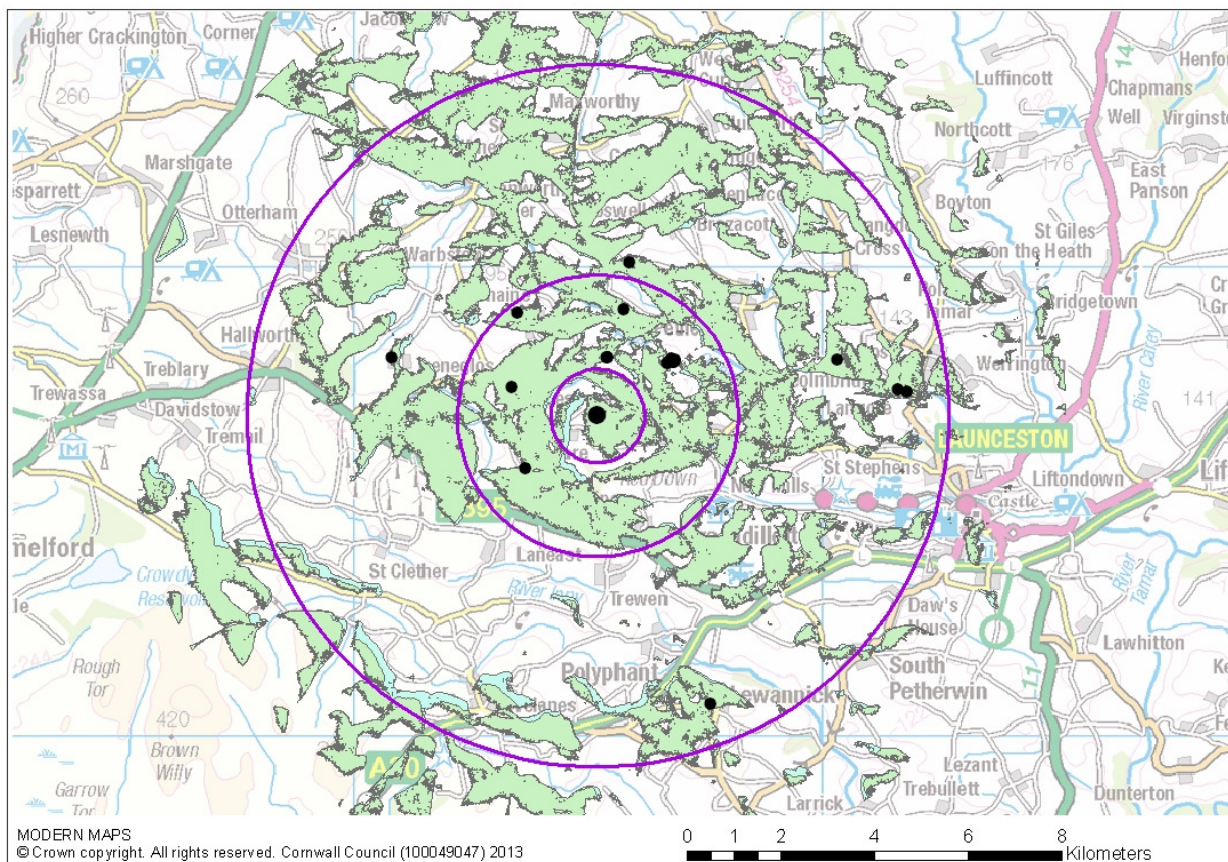


Fig 16 All Grade I and II* Listed Buildings within a 7.5km radius of the site, showing hub (green) and blade tip (jade) ZTVs.

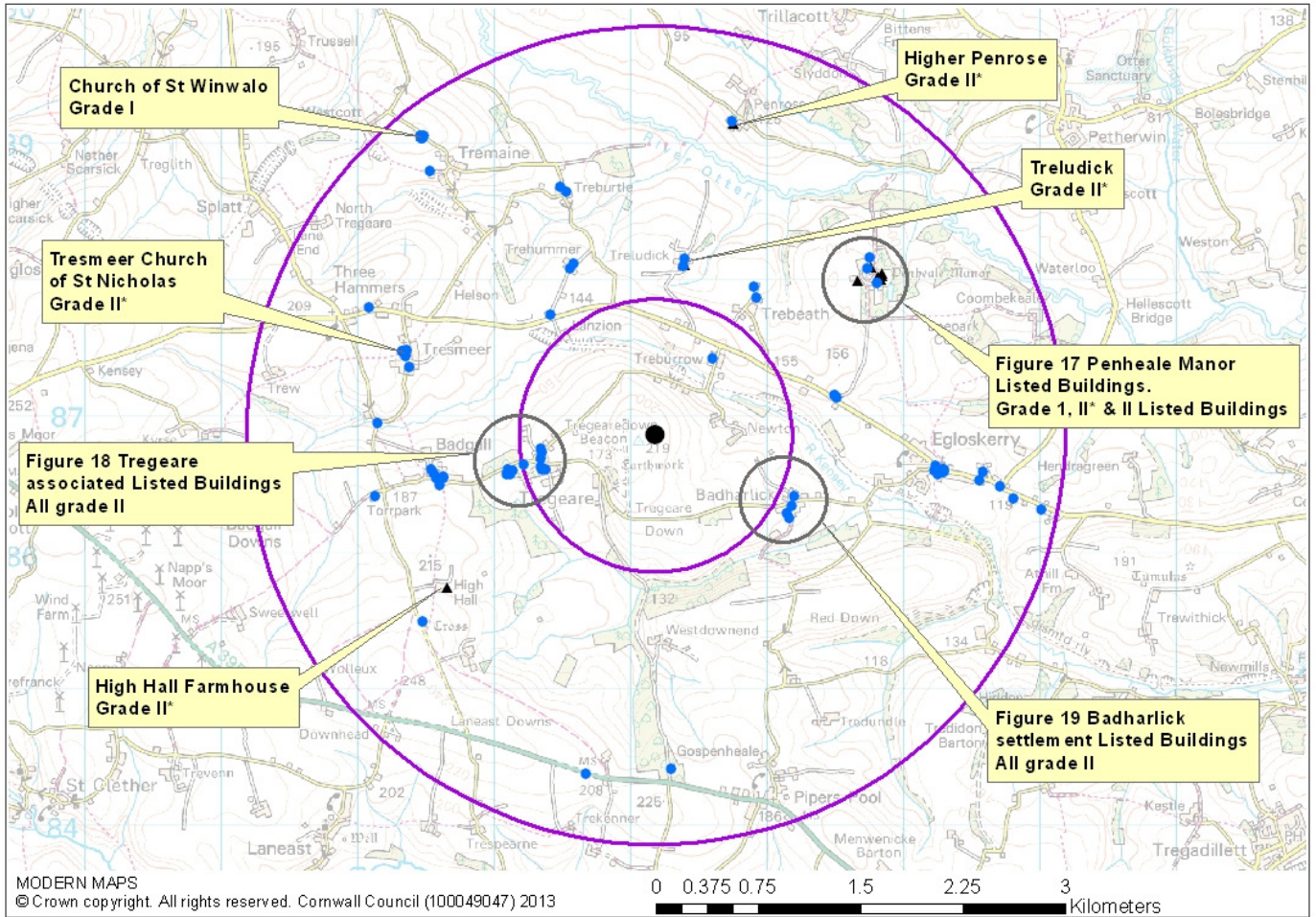


Fig 17 All Grade I and II* (black) and Grade II (blue) Listed Buildings within the 3km ZTV.

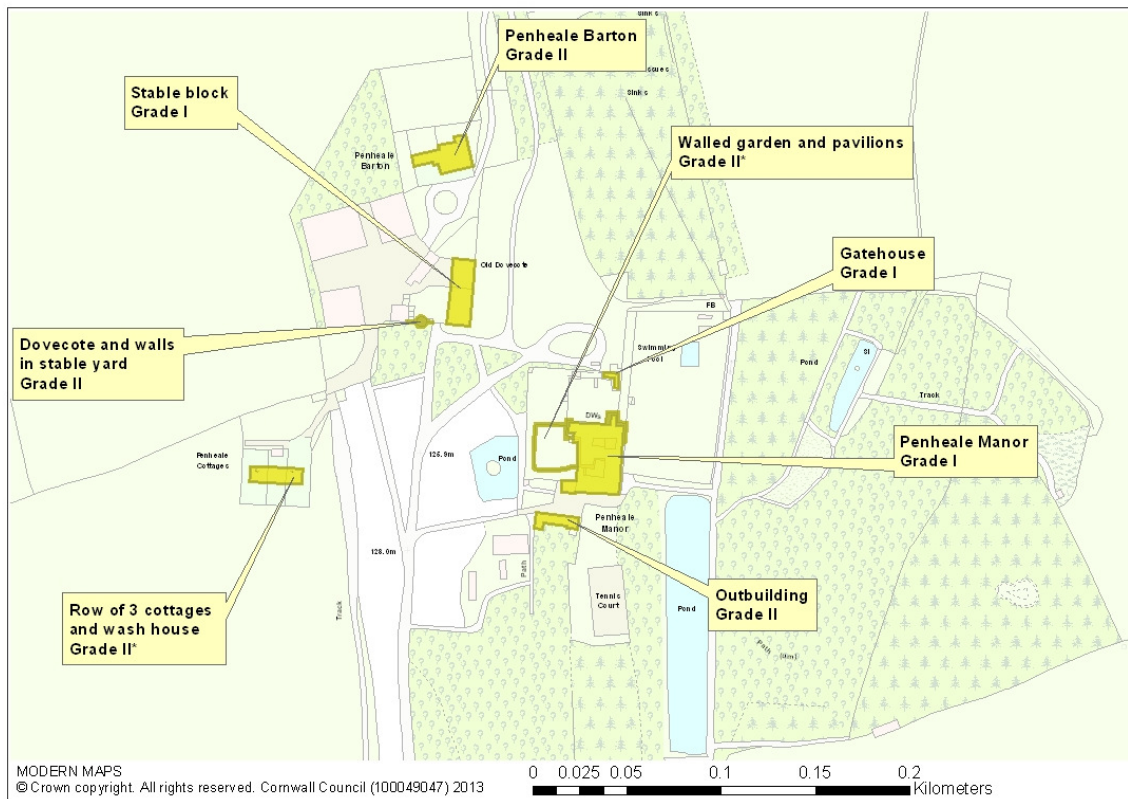


Fig 18 All Listed Buildings (Grade I, II* and II) associated with Penheale Manor.

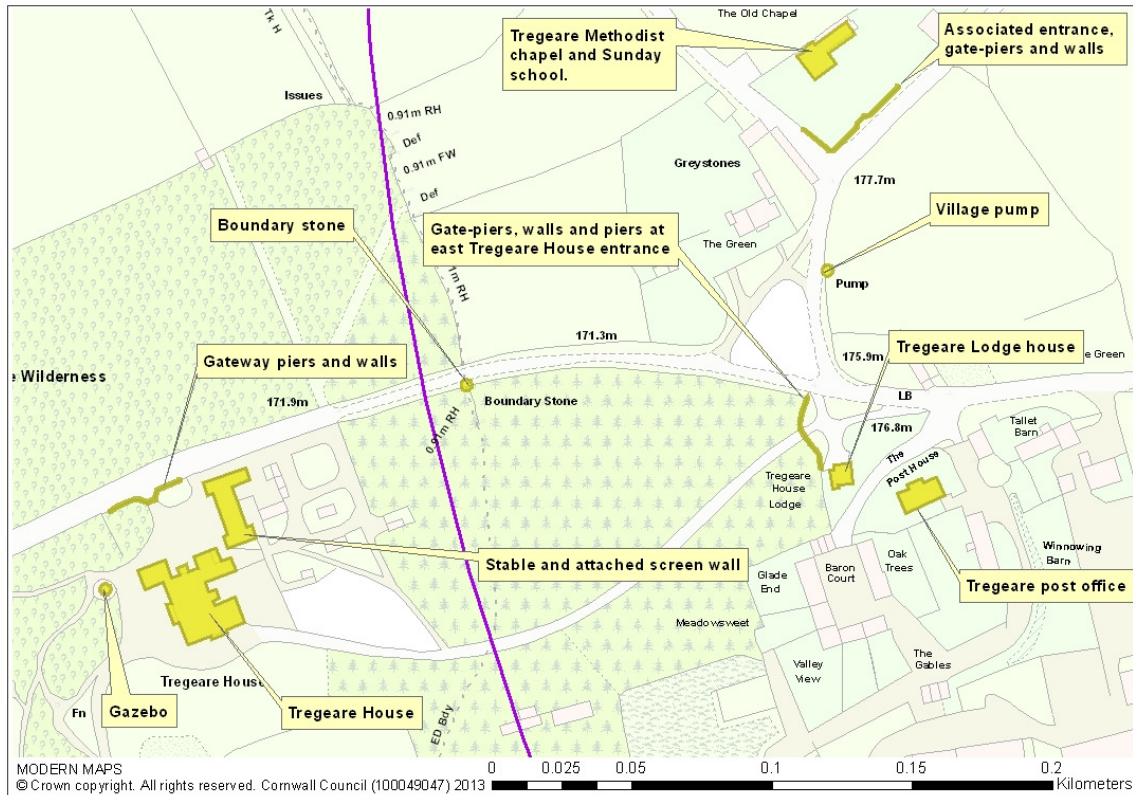


Fig 19 All Listed Buildings (all Grade II) within the vicinity of Tregear.

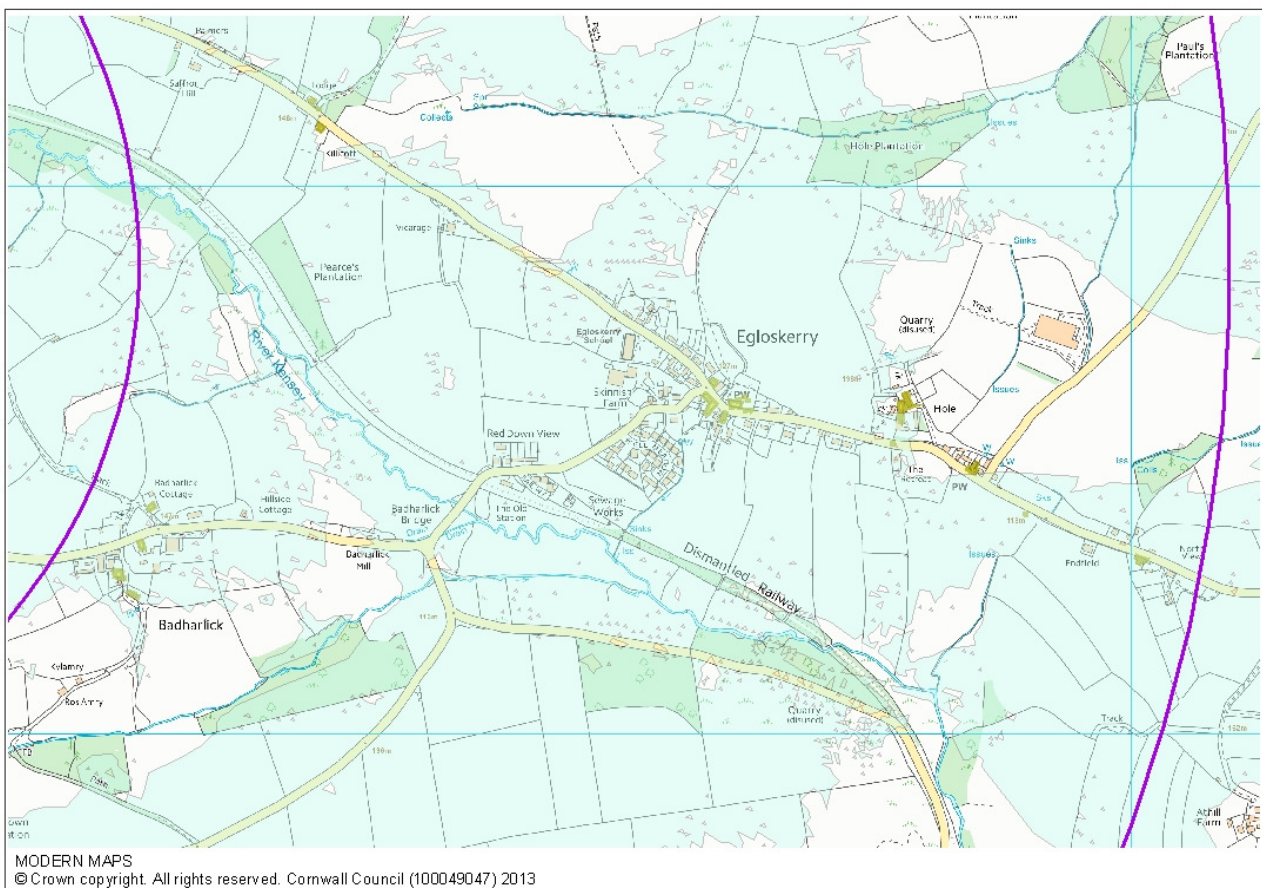


Fig 20 All Listed Buildings within the vicinity of Egloskerry and Badharlick showing the 1km and 3km radius lines (mauve), the blade tip ZTV (pale shading) and all Listed Buildings- all Grade II (yellow).

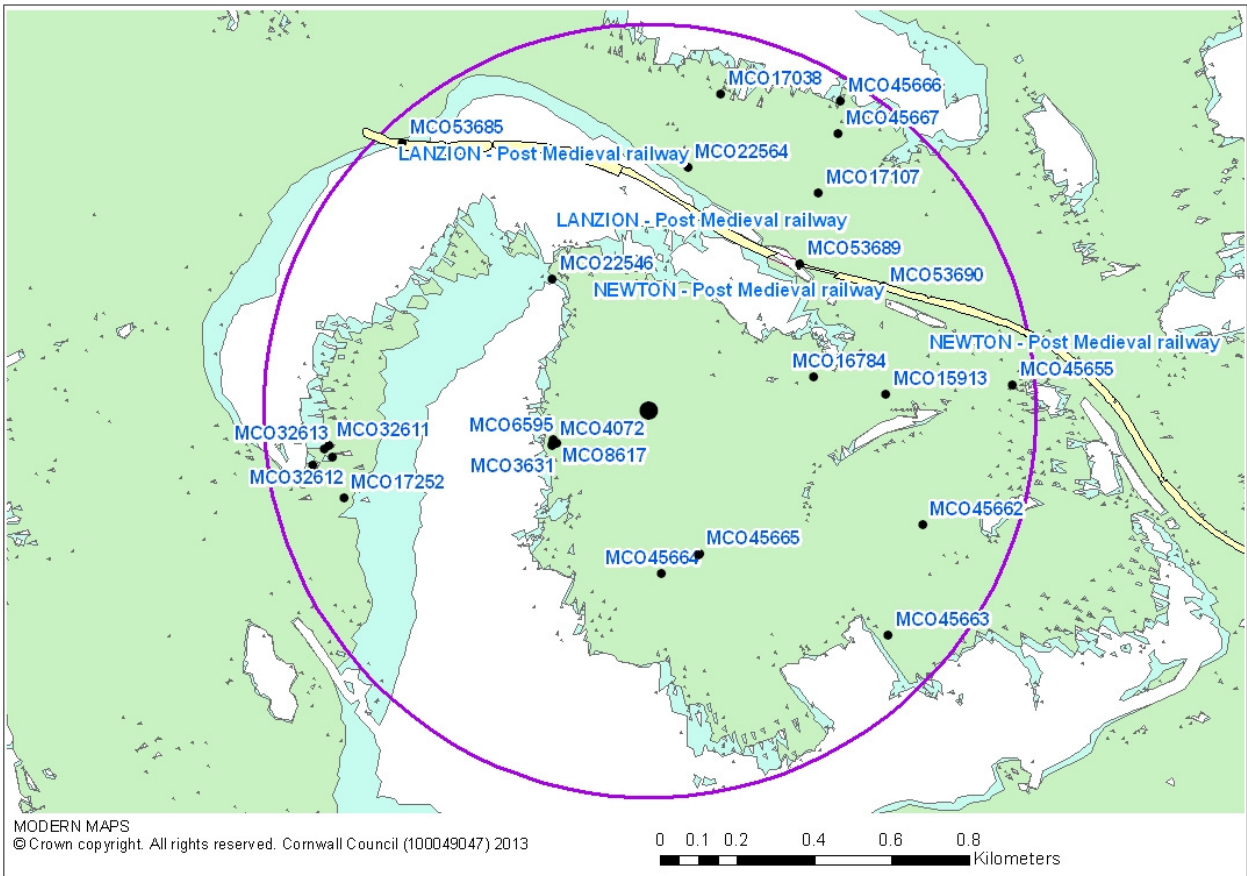


Fig 21 The 1km radius showing all HER monuments as black dots or pale yellow (railway) within the hub (green) and the blade tip (jade) ZTV.

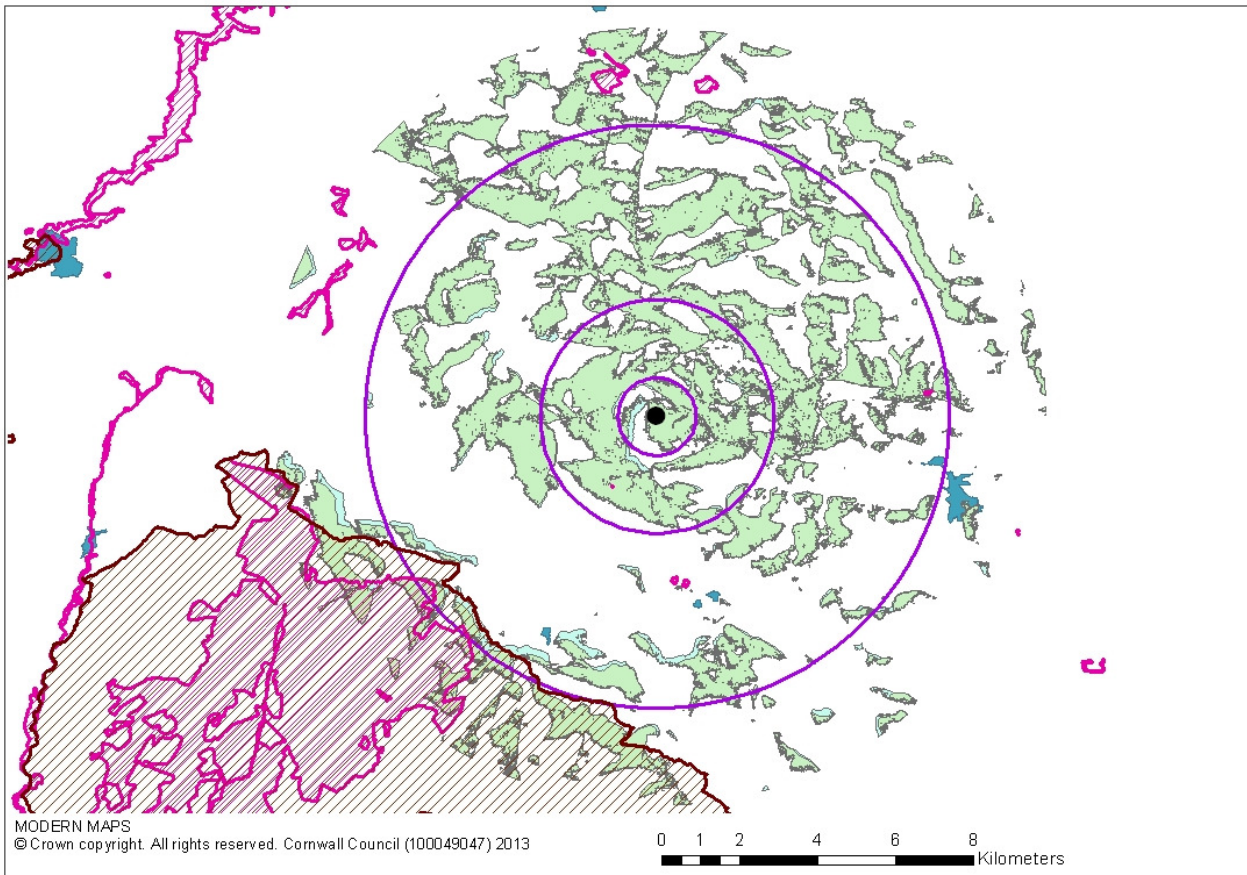


Fig 22 The 1, 3 and 7.5km radius lines showing all AGHVs (brown), Conservation Areas (turquoise) and SSSIs (pink) with hub (green) and blade tip (jade) viewsheds.

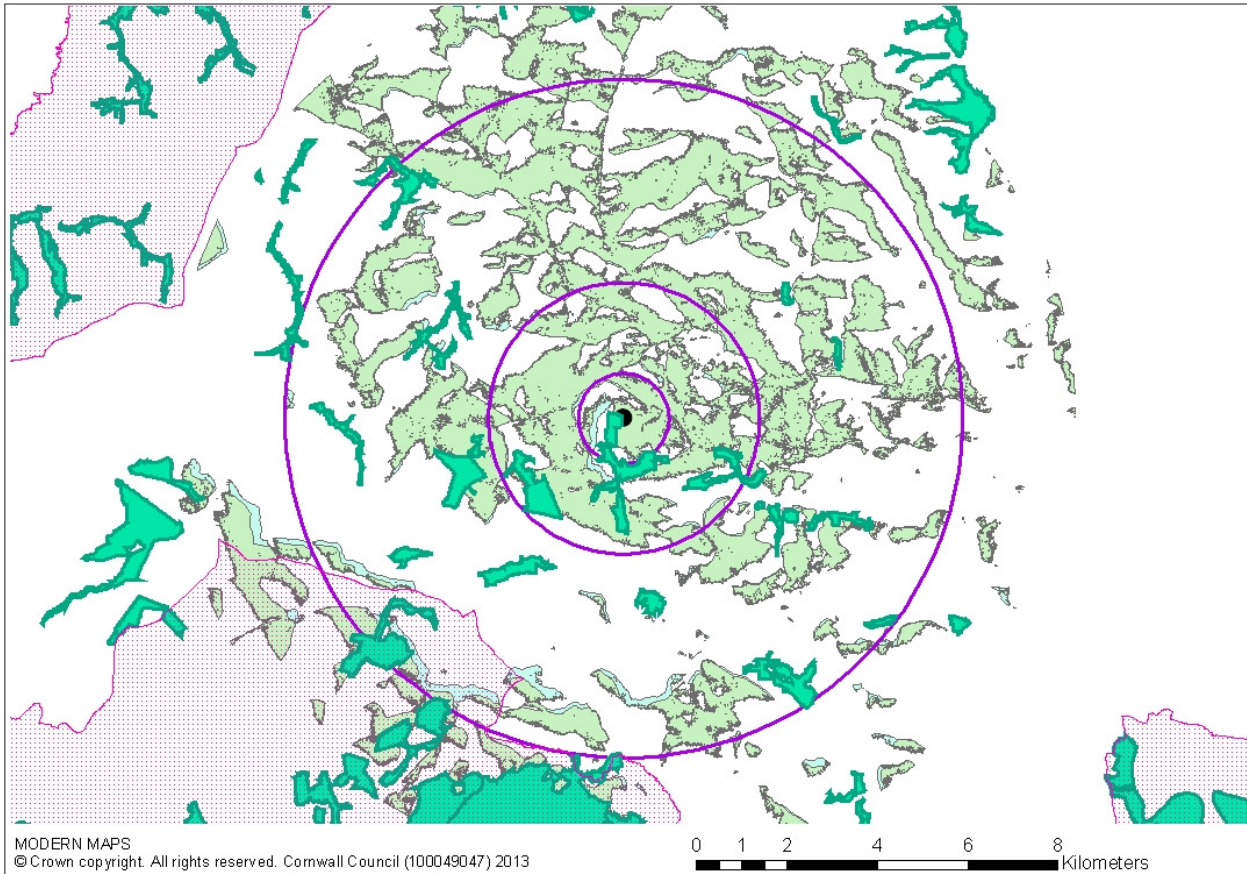


Fig 23 1, 3 and 7.5km radius lines showing all AONB's (mauve) and County Wildlife Sites (dark green) with hub (green) and blade tip (jade) viewshed areas.

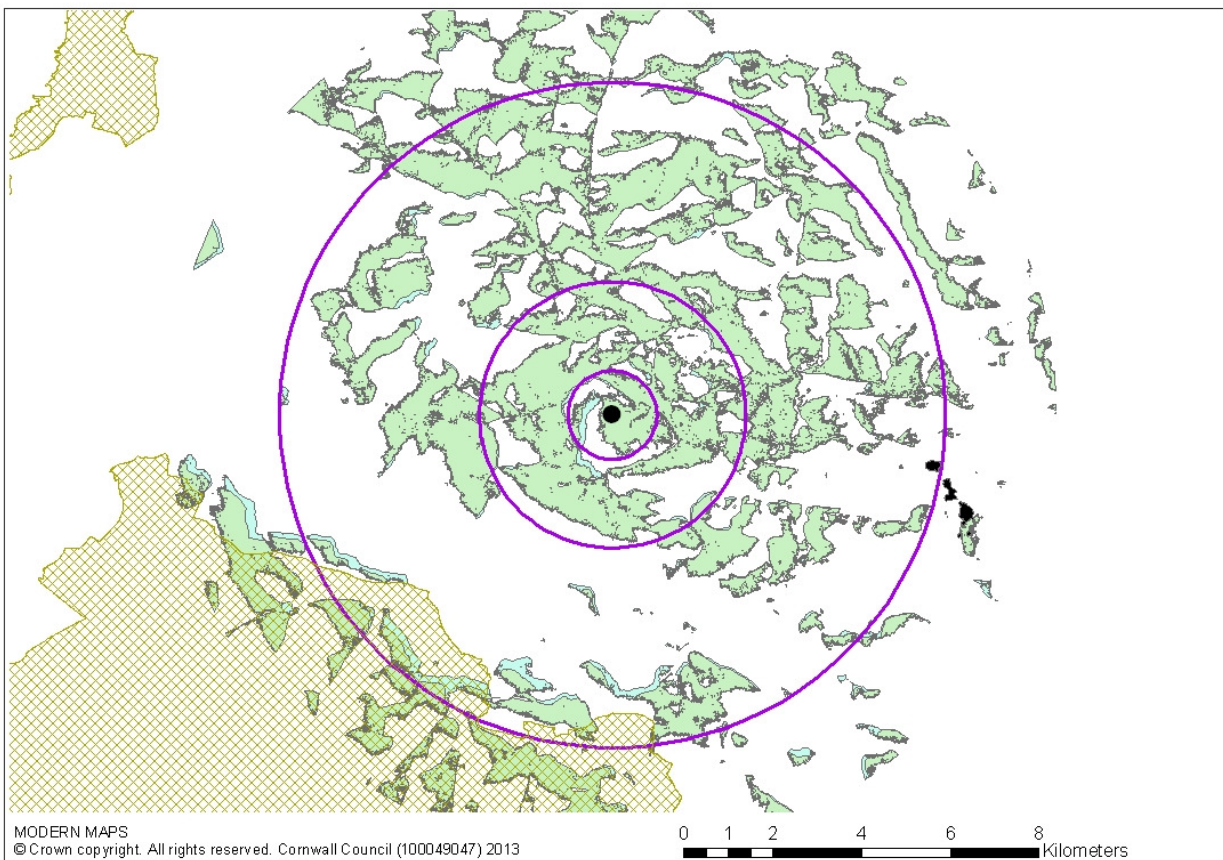


Fig 24 The 1, 3 and 7.5km radius lines showing all AGSVs (orange) and Historic Settlements (black) with hub (green) and blade tip (jade) viewshed areas.

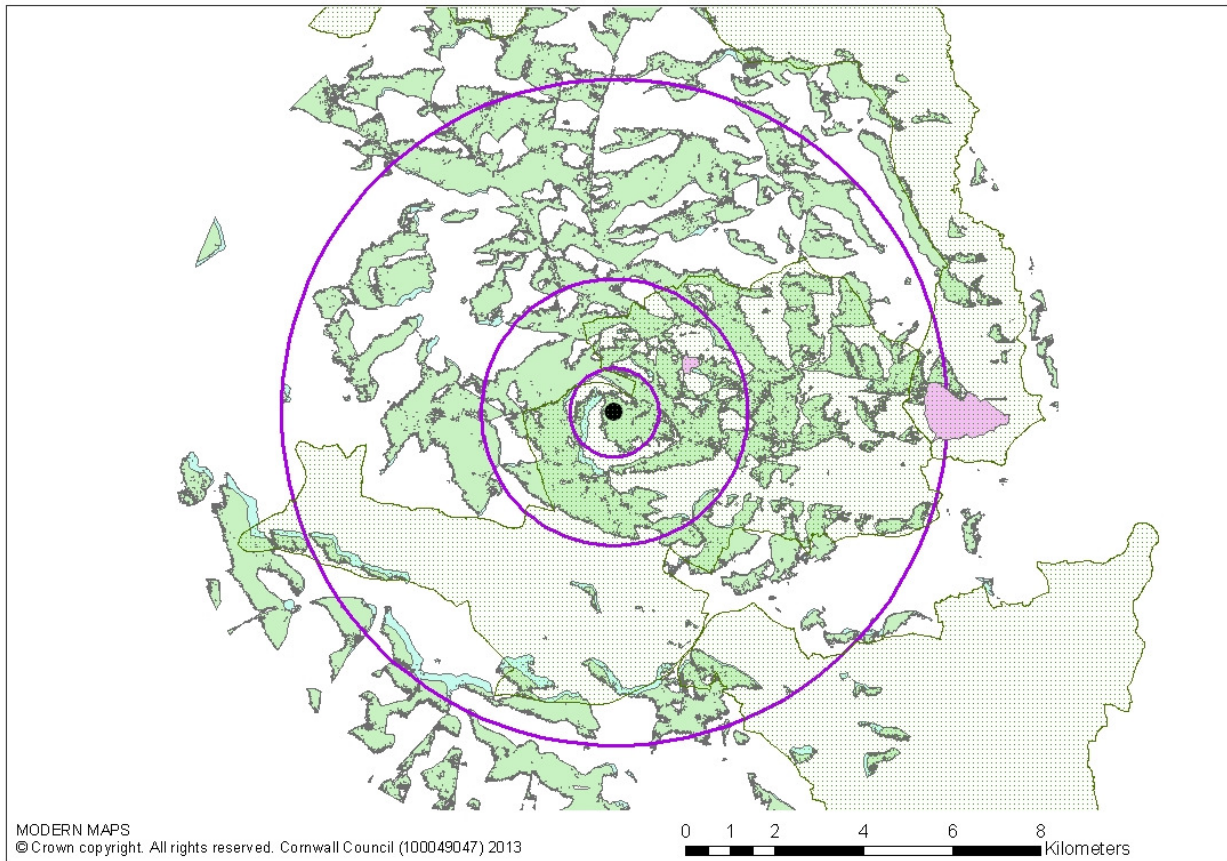


Fig 25 The 1, 3 and 7.5km radius lines showing all AGLVs (green) and Parks and Gardens (mauve) with hub (green) and blade tip (jade) viewshed areas.



Fig 26 View looking south from Tregear Camp showing mast to west and existing turbine to south-east of site.



Fig 27 Looking east-north-east from the proposed turbine site along the upper southern part of the proposed route of access.



Fig 28 Looking south-east from the proposed turbine site, showing Egloskerry on the left side and Red Down on the right.



Fig 29 Looking south-south-west from the proposed turbine site, showing Bodmin Moor in the distance.



Fig 30 Looking west from the proposed turbine site, showing the rise upslope to Tregear Beacon; beyond this is Tregear Camp.



Fig 31 Looking east from the site towards Egloskerry village and the grade II Listed church (taken with a zoom lens).



Fig 32 Looking north-east across Treburrow from the access gate in to the turbine field.



Fig 33 Looking north towards Tor Wood from the top of the northernmost field of the access route.



Fig 34 Looking south through Treburrow towards the site, which is on the central horizon.



Fig 35 Looking west towards the site from Egloskerry churchyard, showing the site to the immediate left of the tallest chimney.



Fig 36 Looking south-west from farmland at North Petherwin across the Listed Penheale Manor and designated Park and Garden towards Tregearhead Beacon and the site.



Fig 37 Looking east from Tregear Camp across the site, (located just beyond the foreground horizon boundary), showing Dartmoor in the far distance, with Red Down in the right middle ground.



Fig 38 Looking east across the Listed Tregear village pump showing the tree covered site of Tregear-down Beacon on the west side of the site.



Fig 39 Two photographs looking east-south - east from Tresmeer Church and churchyard showing the wooded western side of Tregear-down Beacon, immediately beyond which is the site.



Fig 40 Top - looking south-east from Tremaine churchyard towards the site (visible as a near 3km distant tree topped hill); and bottom – looking north-west (away from site) towards the church showing its open south-eastern front.



Fig 41 Views east-south-east from Three Hammers, showing Tregearedown Beacon, with outlying properties of Tregeare village at North Lane in the middle ground. The site is located just beyond the central part of the horizon.



Fig 42 Looking north-east across the Scheduled High Hall wayside cross on Laneast Downs, showing the Grade II High Hall Farmhouse on the left and Tregear-down Beacon on the right.*



Fig 43 Treneglos Church (top), with a view east-south-east towards the site showing the large intervening farmhouse, outbuildings and trees (bottom).

15 Appendix 1: Written Scheme of Investigation

Client: Capture Energy Ltd
Client contact: Nicola Davies
Client tel: 01209 716861
Client email: Nicola@capture-energy.co.uk



Project background

Historic Environment Projects were contacted in January 2013 by Nicola Davies of Capture Energy Ltd with a request for the costs of an assessment of the potential impacts of the construction of a 24m to hub height (34.4m to blade tip) wind turbine proposed for a site at Rowland's Corner, Egloskerry at SX 25817 86871.

English Heritage have summarised the considerations which should be taken into account when assessing the archaeological impacts of renewables proposals, including indirect impacts on sites, areas and the surrounding landscape. English Heritage has indicated that such impact assessments should also include an assessment of the potential for buried archaeology, effects on landscape amenity and cumulative impacts. A guidance table indicating recommended ZTV distances in the cases of wind turbines of varying heights is included in this guidance, in this instance the recommended ZTV radius being 7.5km. Direct and indirect impacts on Scheduled Monuments and Grade 1 and II* Listed Buildings would need to be considered out to 7.5km, together with designated landscapes (Registered Parks and Gardens and Registered Battlefields). Impacts on Grade II Listed Buildings would need to be assessed out to a 3km radius from the site.

A screening opinion for the proposal included a recommendation that the scope of the assessment should be guided by a brief produced by the Historic Environment Advice Officer (East), Mr. Phil Copleston. Mr Copleston requested a WSI based on previously-issued model briefs in this instance.

A standard brief guiding such assessments states:

An assessment of the archaeological potential of the site and the potential impacts of the development on surrounding historic assets will be required to provide information in support of a planning application for the proposed development in accordance with the requirements of National Planning Policy Framework paragraph 128.

Cornwall Council Historic Environment Service believes high quality design should play a key role in minimising any adverse effects of renewable energy projects, whether this is directed at the disposition of wind turbines and energy crops in the landscape or the positioning of photo-voltaic cells on historic buildings or within the countryside. Fundamental to achieving high quality design will be a sound understanding of the character and importance of the historic asset involved, whether at the scale of individual buildings and sites or more extensive historic areas and landscapes.

Site history

The site is located in a rural area of east Cornwall at OS Grid Reference SX 25817 86871 near Tresmeer to the west of Launceston. The wind turbine is to be sited at a height of 212m OD on soils recorded as being Larkbarrow loams over sandstones.

The area immediately surrounding the site proposed for the turbine is recorded as Recently Enclosed Land (Farmland 20th century), though this is set within a matrix of Anciently Enclosed Land (Farmland Medieval) and Upland Rough Ground, suggesting that the enclosure proposed for the wind turbine was downland/moorland until very recently. There is a surviving prehistoric earthwork enclosure on the nearby Tregear-down Beacon (a Scheduled Monument less than 250m from the site proposed

for the wind turbine), a late prehistoric enclosed settlement (Round) just to the west of Egloskerry, and evidence for medieval strip fields within the surrounding landscape, giving some indication of the uses of the area during the past. The Church of St. Keria at Egloskerry not far to the east is Grade II Listed, the Church of St. Nicholas at Tresmeer is Grade II* Listed, whilst Penheale Manor 2km to the north east is Grade I Listed. There are also a number of Grade I Listed farmhouses within 2km of the site.

The viewshed will extend most notably to the east of the turbine site, given topographic factors; Launceston, with its Scheduled castle and many Listed Buildings is just over 7km in this direction, whilst the north eastern fringes of Bodmin Moor 7km to the south west include Scheduled Monuments and areas on Carne Down and Bray Down. The Scheduled Warbstow Bury is just over 6km to the north west of the site proposed for the wind turbine.

This is an area of Cornwall which is currently experiencing a significant number of applications for wind turbines and solar farms. The prominent Cold Northcott wind farm is centred 4km to the west of the site, medium scale wind turbines have been applied for at Higher Churchtown Farm 2km to the north west, whilst other applications for medium sized wind turbines are under consideration within 3km of this site. An assessment of the potential for cumulation will be undertaken as part of the reporting process.

Project extent

The assessment will consider the surviving heritage assets within the area immediately surrounding the site proposed for the wind turbine and the route for its cable connection. The viewshed analysis will model intervisibility with heritage assets within the landscape surrounding the site proposed for the wind turbine as set out in an English Heritage letter dated 20 September 2012.

The proposed archaeological assessment is, in part, focussed on those heritage assets (whether designated or not) which might be physically impacted upon by activities associated with the erection of the wind turbine, including any cable trenching, siting of temporary compounds, cranes or other equipment and with any associated semi-permanent infrastructure.

The assessment will also take into account and quantify impacts on the settings of heritage assets (both designated and undesignated) within the viewshed of the proposed turbine site in line with Policy HE6 in PPS5, sections 16(2) and 66(1) of the Planning (Listed Buildings and Conservations Areas) Act 1990 Chapter 9, and English Heritage guidance relating to the setting of historic assets (2011) and on wind energy and the historic environment (at a minimum):

- Non-designated heritage assets – 1 Km radius.
- Scheduled Monuments, Grade 1 and Grade II* Listed Buildings – 7.5Km radius.
- Grade II Listed Buildings – 3Km radius.
- Conservation Areas – 3Km radius.
- Registered Parks and Gardens – 7.5Km radius.
- World Heritage Site – 3Km radius.

Aims and objectives

The assessment needs to both a) assemble an evidence base to identify those historic assets which may be impacted by the proposed development and b) evaluate the significance of the assets affected and the significance of their settings and identify potential impacts on that significance either direct or indirect. This will involve a desk based assessment including a viewshed analysis to establish the Zone of Theoretical

Visibility (ZTV) of the proposal site, the drawing together of information from Heritage Asset registers and other sources including historic maps, and a walk over survey of the extant remains of the site including the preparation of photographic montages of key views affected. This work should be capable of providing evidence for the assessment of impacts of the development and informing options for its design.

The site specific aims are to:

- Establish viewsheds of the proposal site.
- Draw together existing historical and archaeological information about the site and its landscape setting from published and unpublished sources and information on designated and undesignated assets from national and local Historic Asset registers (such as the CSHER, NMR, Heritage Gateway, etc).
- Review and analyse historic map evidence for the site.
- Consider any geotechnical or geophysical data for the site.
- Undertake a site 'walkover'.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals following the initial filtering of the ZTV. Where currently undesignated assets are identified their likely significance should be indicated i.e. 'national', 'regional' or 'local'.
- 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 palaeoenvironmental sampling would be required.
- Identify the construction, use and 'end of life' impacts of the current proposals on designated heritage assets (as listed in the NPPF) and on undesignated historic assets as described in PPS5.
- Follow English Heritage Guidance 'The Setting of Heritage Assets' (2011) to produce assessments of the significance of setting of affected assets and the impacts of the proposals on those settings.

The principal project objective is to produce an illustrated report setting out the range of potential impacts of the proposal, the relative significances of the potentially affected sites and suggestions for suitable mitigation measures.

A further objective is to produce an entry to the OASIS on-line index to archaeological projects.

Working methods

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

Desk-based assessment

A desk-based assessment will be carried out to inform the fieldwork stage. This will comprise:

- Relevant published sources
- Historic maps, including:
 - Joel Gascoyne's map of Cornwall (1699)
 - Thomas Martyn's map of Cornwall (1748),
 - OS 1 inch survey (c1810)
 - Egloskerry Tithe map (c1840),

- 1st and 2nd Editions of the OS 25 inch maps (c1880 and c1907)

- Modern maps
- GIS layers curated by Cornwall Council and the Historic Environment, Cornwall Council

Assessment of impacts on setting of heritage assets

Heritage assets intervisible with the sites of the proposed turbine will be identified through the creation of a viewshed using GIS software. The methodology employs a Digital Terrain Model (DTM), or 'bare earth' given that features like woodland which may currently obscure views are not permanent features of the landscape. A viewshed will be generated for an 'observer point' based on the location of the proposed turbine.

When performing a viewshed analysis, several variables will be used to limit or adjust the calculation including offset values, limitations on horizontal and vertical viewing angles (azimuth) and distance parameters (radius) for the observer point. The viewshed will be based on an 'observer elevation value' made up of the 'elevation value' or height above sea level of the ground at the observer viewpoint, with added to this additional offsets of 24m and 34.4m to represent the height of the hub and the tips of the rotor blades.

These viewsheds will be checked on the ground from key sites, whilst significant heritage assets within the theoretical viewsheds will be visited to determine intervisibility with the proposed development site, and hence the scale and type of any visual impacts which may affect their settings, as required by English Heritage (2011).

Fieldwork: survey

As directed by the brief, a walkover survey will be undertaken within the environs of the site proposed for the wind turbine at Rowland's Corner. Sites identified within the desk-based assessment will be field checked and their condition noted. Unrecorded sites identified during the walkover survey will be located using a hand-held GPS unit and will be added to a base map generated during the desk based assessment. Areas of archaeological sensitivity will be identified during the walk over survey.

Site visits will be made to publicly-accessible potentially intervisible key heritage assets within the area covered by the viewshed zones to truth-check this mapping and to determine the likely scale of impact on these heritage assets of the construction of the wind turbine.

Fieldwork – magnetometer survey

Assessments of this type are normally accompanied by a magnetometer survey, this being 1Ha in size centred over the proposed turbine location, with a 30m wide corridor centred on the cabling route and construction access route. This enables the potential below-ground impacts of the groundworks associated with the development and the need for any further evaluation trenching to be established, together with any recommendations for mitigation. The geophysical survey is not part of this proposal, but would normally be commissioned by the developer. The results of any geophysical survey undertaken as part of this application should be supplied to HE Projects and a summary and appropriate figures will be incorporated into the assessment report.

Fieldwork: photographic recording

High resolution digital photographs will be taken from the location of the proposed turbine to record the landscape visible from its site, together any heritage assets contained within it. Where practicable, images will also be taken from inter-visible heritage assets within the locality to determine the level of visual impact which might be expected from the proposed development. Images back towards the proposed site will be taken from significant heritage asset receptors using a 50mm focal length lens on a high resolution digital camera (the equivalent of a 75mm lens on 35mm film to

indicate the likely degree of intervisibility between these heritage assets and the development site and the likely impacts on their settings.

The photo record will comprise:

- general views
- examples of archaeological detail

The methodology for the 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

Creation of site archive

This will include:

- Digital colour photographs stored according to HER guidelines
- Project materials stored according to HER guidelines
- Completion of an English Heritage/ADS OASIS online archive entry.

Archive report

The written report will include:

- 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 setting out a brief background history to the project area, designations applying to it and heritage assets within its Zone of Theoretical Visibility (ZTV), a brief inventory of intervisible heritage assets and their significances, and the direct and other impacts on heritage assets which might result from the development;
- Summary management recommendations based on the findings of the various survey components (including geophysical survey, if commissioned) to inform whether an archaeological evaluation of any potential buried remains is recommended, or that the turbine be repositioned to avoid any sensitive buried features
- A location map and a plan showing those areas examined as part of the archaeological recording. All plans shall be tied to the national grid;
- A summary of the archive contents;
- References;
- A copy of the approved WSI will be included as an appendix;
- Supporting illustrations: location map, historic maps, viewshed mapping, photographs.

A paper copy and a digital (PDF) copy of the report, illustrations and any other files will be deposited with in the Cornwall HER. Paper copies of the report will be distributed to the client, to local archives and national archaeological record centres. These will be held back from public access until the planning application for the proposed turbine has been submitted and the information contained within the report will therefore be deemed to be within the public domain.

Archive deposition

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

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. As the project is likely to produce solely a documentary archive this will be deposited with the Cornwall Record Office as well as the Courtenay Library of the Royal Institution of Cornwall.

A summary of the contents of the archive shall be supplied to the HEPAO.

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. The project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.

Timetable

The study is anticipated to be commenced during Spring 2013. HE Projects will require at least two weeks notice before commencement of work, in order to arrange field staff time 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 Phil Copleston, Historic Environment Planning Advice Officer. Where the Historic Environment Planning Advice Officer is satisfied with the archive report and the deposition of the archive written discharge of the planning condition will be expected from the local planning authority (LPA).

Monitoring points during the study will include:

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

Historic Environment Projects

Historic Environment Projects is the contracting arm of Historic Environment, Cornwall Council (HE). HE employs some 20 project staff with a broad range of expertise, undertaking around 100 projects each year.

HE 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

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

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

Terms and conditions

Contract

HE Projects is part of Historic Environment, 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 the HE projects team 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 Senior Archaeologist (Adam Sharpe BA MIFA) who will:

- Discuss and agree the detailed objectives and programme of each stage of the project with the client and the field officer, 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.
- Provide background information to the geophysical survey contractor.

Work will be carried out by suitably qualified and experienced HE Projects staff.

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 the Historic Environment, 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.

HE 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 HE may need to disclose any information it holds, unless it is excluded from disclosure under the Act.

Health and safety statement

HE follows the Council's *Statement of Safety Policy*. For more specific policy and guidelines HE uses the manual *Health and Safety in Field Archaeology* (2002) endorsed by the Standing Conference of Archaeological Unit Managers and also the Council for British Archaeology's Handbook No. 6 *Safety in Archaeological Field Work* (1989).

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

Insurance

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

Adam Sharpe BA MIFA

Senior Archaeologist

22 April 2013

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