



Grogarth Farm, Tregony, Cornwall

Archaeological assessment



Historic Environment Projects

Grogarth Farm, Tregony, Cornwall

Archaeological assessment

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Acknowledgements

This study was commissioned by Mr. Richard Bray of Grogarth Farm, Tregony and carried out by Historic Environment Projects, Cornwall Council.

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 from Frog Street, Tregony, north-westwards towards Grogarth Farm. The proposed wind turbine would be sited on the skyline to the left of the farm buildings.

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Abbreviations

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

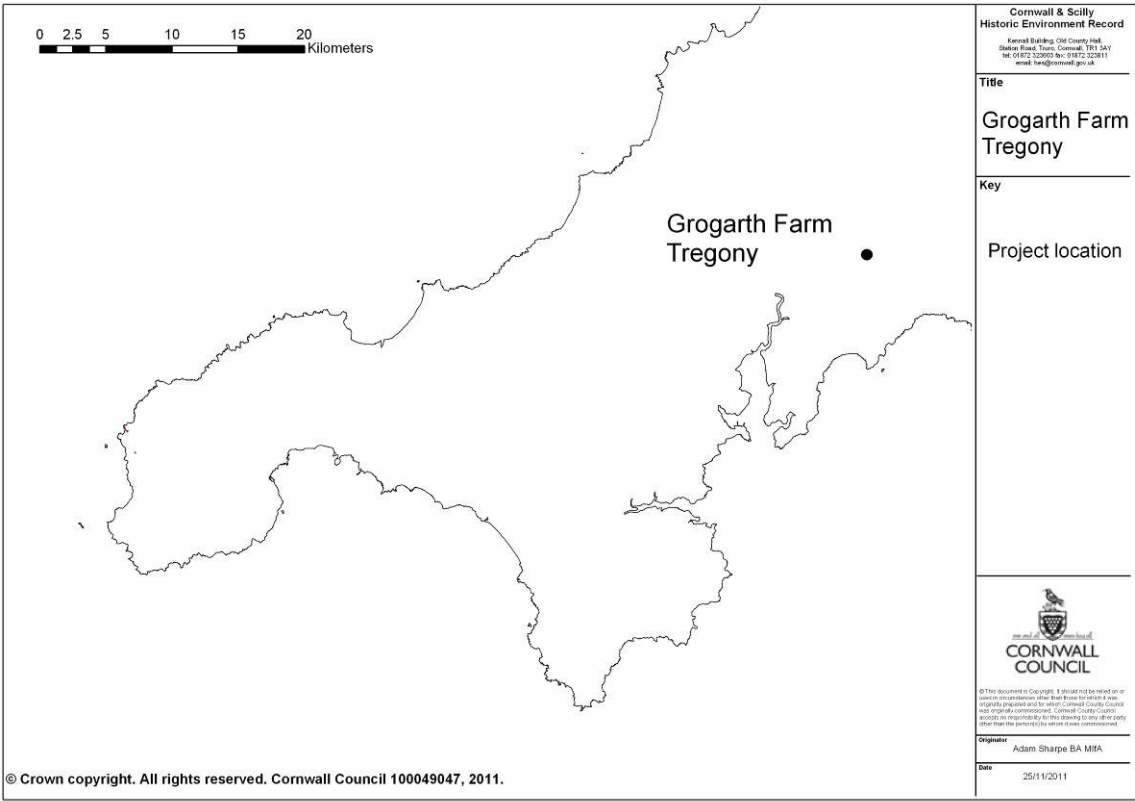


Fig 1. The location of Grogarth Farm, Tregony.

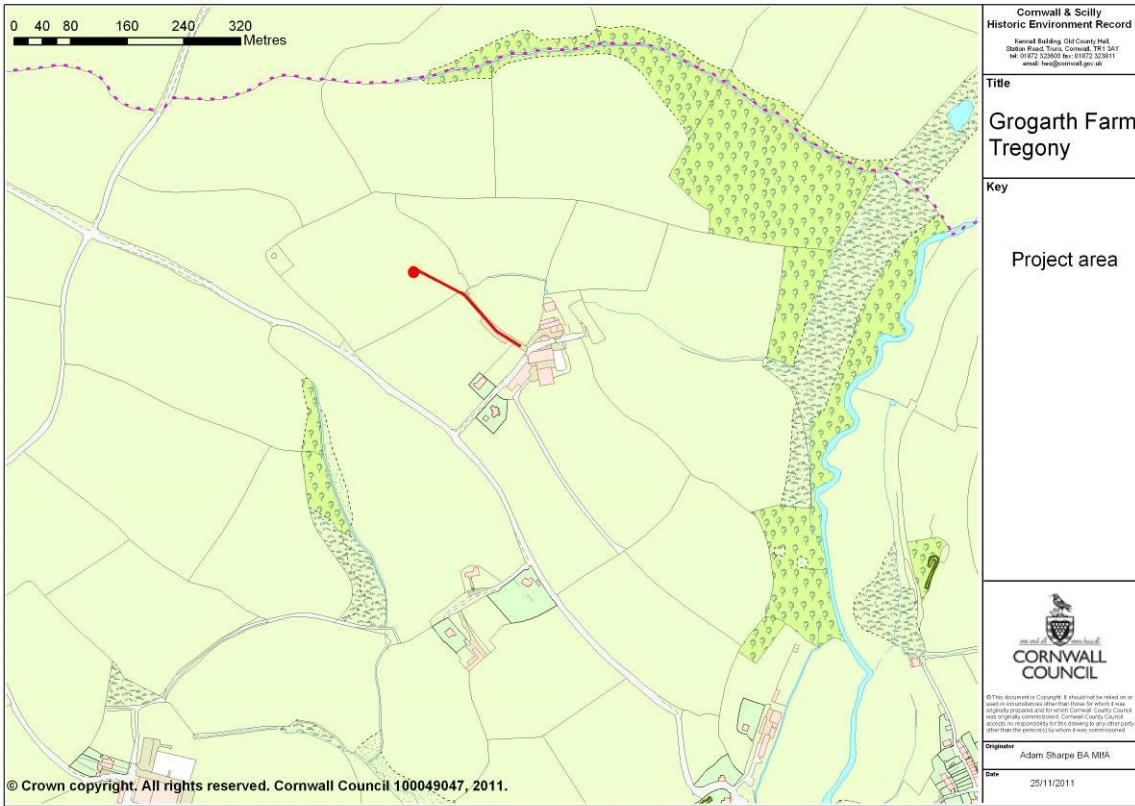


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1 Summary

A planning application (PA10/07881) has been made for the erection of a wind turbine at Grogarth Farm, Tregony. The proposed turbine would measure 25m high to hub height and 34.6m to rotor tip height. The proposed turbine is to be located at SW 91576 45574 at a height above sea level of 85m OD.

The location proposed for the wind turbine is sited just to the west of the medieval settlement of Tregony and a short distance to the north of Cornelly Church at a high point on a plateau which is quite deeply dissected by the River Fal and its tributaries. Whilst there is archaeological evidence for occupation of this area from the Bronze Age, and for this landscape having been extensively farmed from defended farmsteads during the later Iron Age and through the Romano-British period, the current field system was laid down during the medieval and post medieval periods.

HE projects were requested by Mr. Richard Bray of Grogarth Farm, Tregony to undertake an archaeological assessment of the proposed development, working to a brief supplied by Vic Robinson, and as advised by Dan Ratcliffe, Historic Environment Planning Archaeological Advice Officer, Cornwall Council. The project consisted of a desk based assessment of existing information including that held in the Cornwall and Scilly Historic Environment Record (HER), historic maps, and GIS layers curated by Cornwall Council. A viewshed analysis was undertaken within 1Km, 1.5Km and 2.5Km radii of the proposed turbine site to determine potential impacts on the settings of designated heritage assets (scheduled monuments, listed buildings, conservation areas and registered parks and gardens) in line with 2010 English Heritage Planning Guidance, guidance from the Cornwall Council Senior Conservation Officer and Planning Advice Officer (Mid Cornwall). Potential impacts on the settings of undesignated HE assets and on Historic Landscape Character were also considered. The findings of the DBA and the viewshed analysis were checked and recorded on the ground using direct observation and digital photography.

Given the elevated location proposed for the wind turbine and the local topography, not unexpectedly the viewshed (Figs 15-17) indicates that the turbine would be intervisible with heritage assets located within the surrounding landscape except where these lie in valleys or where woodland or closely-set buildings prevent this occurring.

The turbine would be visible from parts of the Conservation Area at Tregony, as well as elements of the Registered Parks and Gardens at Trewithen to the north and Trewarthenick to the south west, from the scheduled Golden Camp to the north east and, in addition to a number of the listed buildings in Tregony, from three Grade 1 listed churches at Cornelly, Cuby and Creed, the first of these being only just over 400m away from the turbine site.

Despite the high intervisibility of the turbine with a significant number of designated heritage assets within the surrounding landscape, it is not felt likely to be a dominating presence for many of these, and therefore would not have a significant impact on their settings, as defined by English Heritage 2011. In the case of Cornelly Church, which is close to the application site, impacts on its setting would be unavoidable, particularly from the south and south-east. Impacts on the setting of Tregony Conservation Area and its Listed Buildings will be inevitable, but limited. Impacts on the settings of the Registered Parks and Gardens at Trewithen and Trewarthenick will also occur, but at a relatively low level.

In terms of potential direct impacts on upstanding or sub-surface archaeology, the wind turbine site is not on the site of or close to any recorded archaeological site, though examination of the NMP aerial photo plots suggest that elements of an Iron Age/Romano-British field system associated with a cropmark enclosure to the south-west may extend into this field as sub-surface archaeology.

The route for the cabling to connect the turbine to Grogarth Farm runs to the south-east via a lane raised above the prevailing ground surface, and there is some limited potential for trenching to impact on sub-surface archaeology.

Recommendations in this report suggest further work which might be required to mitigate the archaeological impact should the development proceed. Geophysical survey, controlled soil stripping or an archaeological watching brief may be recommended to allow the recording of buried remains directly affected by the development during its groundworks stage.

Overall, the impact on the archaeological resource is assessed as potentially negative/slight to negative/moderate. Appropriate mitigation could reduce the impacts on any archaeology within the development site to negative/minor residual, but would not change potential impacts on the settings of other heritage assets.

1 Introduction

1.1 Project background

A planning application (PA10/07881) has been made for the erection of a wind turbine at Grogarth Farm, Tregony. The proposed turbine would measure 25m high to hub height and 34.6m to rotor tip height. The turbine is proposed to be located at SW 91576 45574.

Feedback on the application provided by Jenny Gale, Conservation Officer, to the Planning officer on the 17 January 2011 stated:

"The design statement is over-simplistic in its approach to assessing the potential historic value of the area in which the site is located and erroneously dismisses the issue under Context page 2 with the statement that there are; "No areas of great historic value, great landscape value, conservation areas or scheduled ancient monuments".

"In order to comply with policy HE6 of Planning Policy Statement 5 Planning for the Historic Environment, the potential impact on historic assets (both designated and undesignated) must be adequately addressed and the issue has not been given sufficient consideration in the present statement. The site for the proposed turbine is surrounded from the south west to the north east by historic enclosures and possible barrows. To the south west, there is the grade 1 listed building of Cornelly Church. The proposed wind turbine will clearly be seen from The Fal Valley and the Tregony Conservation Area and be prominent in vistas from Trewarthenick landscape park and will affect the views out of Tregony conservation area, which contains many listed buildings".

"A visual impact statement with a map to illustrate the impact of the proposed wind turbine on the historic landscape needs to be submitted to be able to fully assess the impact of the proposals on the historic landscape and other designated assets, as under policy HE6 of the PPS5".

"Therefore I request further assessment of the impact on the historic landscape and designated heritage assets, i.e. the nearby listed buildings and Tregony Conservation Area, in order to provide full comments on this application".

A summary of the relevant legislation and planning policies, together with guidance on the form of work which would be required to address these concerns were set out by Victoria Robinson, Senior Conservation Officer (Mid) Cornwall Council on 25 November 2011 in an email to Capture Energy Ltd. In relation to viewshed analysis to determine impact, the suggested brief stated:

"I suggest that the following would be proportionate for this single 40m wind turbine application;

1) A 2.5km radius study area from the turbine for all scheduled monuments, Grade I and II listed buildings and Registered Parks and Gardens;*

2) A 1.5km study area from the turbine for Grade II listed buildings and Conservation Areas falling within the zone of theoretical visibility (ZTV)

This list is by no mean definitive but based on earlier advice and a quick look at the HBSMR the following are likely to be affected by this development;

- Tregony Conservation Area (within 1km of the proposal)*
- Groups of listed buildings within Tregony Conservation Area*
- Grade I listed Church of St Cornelly (400m from the site)*

- *Trewarthenick Grade II Registered Park and Garden (within 1km of the site at its closest point)*
- *Golden Camp Scheduled Hillfort*
- *Group of Grade II* listed buildings at Golden Manor Farm 1.5km to the north*

Therefore under PPS5 policy HE6 a visual impact statement containing maps and photomontages to illustrate the impact of the proposed wind turbine on the historic landscape and an analysis of the views and impact on the setting of these designated assets should be provided."

HE Projects Cornwall Council were contacted by Nicola Davies of Capture Energy Ltd on 25 November 2011 with a request to provide the costs of undertaking an archaeological assessment and impact assessment of the proposals for the Grogarth Farm site in line with the recommendations contained in Ms. Robinson's advice, and were commissioned by Mr Richard Bray (the applicant) to undertake the work on 6 December 2011 following acceptance of their WSI and cost schedule.

The approach taken to assess the potential impacts of the proposals on heritage assets follows methods of working and reporting developed by HE CC for a similar project (Sharpe, A. 2011, *Croft West, Tregavethan, Truro: archaeological assessment*), so facilitating cross-reference between project results.

1.2 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 turbines at Grogarth Farm, both within the limits of the application site, and in the surrounding historic landscape with its key archaeological sites or 'heritage assets'.

The project aims are to:

- Draw together historical and archaeological information about the site, including relevant information held within the Cornwall Historic Environment Record.
- Review and analyse historic map evidence for the site.
- Produce 'statements of significance' for all designated historic assets, that are identified as potentially impacted on by the current proposals. Where currently undesignated assets are identified their likely significance will be indicated i.e. 'national', 'regional' or 'local'.
- Follow the approach outlined in Section 3 of the English Heritage 2011 guidance on setting.
- Identify the construction, use and 'end of life' impacts of the current proposals on the significance of the setting of these assets and the proposal site.

The objectives are to identify the archaeological potential and significance of the site and to provide the client with advice on the impacts of the proposed development and any mitigation which might be required should the development proceed.

A further objective is to satisfy the information requirements of PPS5, the Government's policy statement on 'Planning for the Historic Environment'.

1.3 Methods

All recording work has been undertaken according to the Institute for Archaeologists *Standards and Guidance for Archaeological Investigation and Recording*. Staff 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.

1.3.1 Desk-based assessment

During the desk-based assessment historical databases and archives were consulted in order to obtain information about the history of the site and the structures and features that were likely to survive. The main sources consulted were as follows:

- Published sources
- Historic maps, including
 - Gascoyne's 1699 map of Cornwall
 - Martin's 1746 map of Cornwall
 - OS 1 inch survey (c1810)
 - Cornelly Tithe Map (c1840)
 - 1st and 2nd Editions of the OS 25 inch maps (c1880 and c1907)
- NMP aerial photo transcripts
- Modern maps
- GIS layers

1.3.2 Viewshed assessment

Heritage assets intervisible with the site of the proposed wind turbine were identified through the creation of a viewshed using GIS software. The methodology employs a Digital Surface Model (DSM), which takes account of surface features such as buildings, woodland, vegetation, roads etc, and provides a more accurate representation when compared to a 'bare earth' or DTM elevation model. A viewshed was generated for an observer point based on the location of the proposed turbine.

When performing the 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 viewshed is 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 an additional offset of 25m to represent the height of the top of the turbine mast.

The viewshed mapping is a computer model and whilst it does take into account some surface features that might hinder visibility and lines of sight (e.g. trees) it takes only limited account of visibility quality and the degradation of views over distance. It was therefore verified and qualified through observation as part of the project fieldwork, looking 'outward' or from rather than into the proposed site, due to limits on time and other constraints. Inevitably, atmospheric conditions and other local factors will still have a variable effect on actual visibility, and there are practical limitations to the feasibility of checking potential 'inward' visibility to a site which would remain similar in terms of its ground cover and other features to neighbouring farmland. However in general the areas of landscape visible on the ground proved to conform very well with those generated by the GIS modelling.

The GIS was used to capture the specified designated heritage assets within 1.5Km and 2.5Km radii of the site and which the viewshed analysis suggests would be intervisible with it, as well as key undesignated heritage assets within the 1Km radius viewshed which were thought potentially to be of significance.

It should be noted that the site viewshed mapping is used in this report to aid assessment and presentation of archaeological impacts. This mapping is not intended to convey more general impacts on views from dwellings, etc.

1.3.3 Fieldwork

Following completion of the desk-based assessment and viewshed analysis, a 'walk-over' survey of the site was undertaken on 20 December 2011 using a composite base map generated by that research. This involved walking systematically over the field proposed for siting the turbine, with the intention of recording the following;

- Sites identified during the desk-based survey
- Any other features visible on the ground
- Boundary types
- Areas of ground where there is documentary evidence for potential survival of below-ground remains
- Relevant aspects of Historic Landscape Character
- Associations with the area's key heritage assets, contributing to their setting
- Views over surrounding sites and historic landscape.

This viewshed was checked on the ground from several vantage points, given that vegetation can block views to key sites. These comprised Probus, Parkengear, Trewithen and Golden Manor to the north, Trewarthenick to the south-east, Cornelly Church to the south and Tregony to the south-east. Whilst it did not prove possible to visit all significant heritage assets within the theoretical viewshed to determine intervisibility with the proposed development site, the scale and type of any visual impacts which might affect their settings was determined from nearby locales.

The walk-over survey also considered the likely direct physical impacts of the construction of the wind farm, including trenching for cabling and any requirements for contractors' access. The walkover survey was also used to identify any specific areas of archaeological sensitivity within the site.

Digital photographs were taken from the locations of the proposed turbine to record the landscape visible from its site, together with any heritage assets contained within it. Where practicable, images were also taken from locations adjacent to inter-visible heritage assets within the locality to determine the level of visual impact which might be expected from the proposed development.

1.3.4 Post-fieldwork

The cultural resource of the study area, and potential impacts of the construction of the turbine upon this were assessed and reported using current standards and methodologies, and professional judgement. The area's individual archaeological features, its specific archaeological potential for further, buried sites, its Historic Landscape Character (HLC), and its significance for the settings of key surrounding heritage assets (in terms of both visual and historic or other aesthetic connections), were all considered. The viewshed study was used to inform the HLC and 'settings' assessments and brought together into an archive report (this report).

A project archive was created, this including:

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

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

The archiving comprised the following:

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

1.3.5 Monitoring

Monitoring of the project was carried out by Dan Ratcliffe, Historic Environment Planning Advisor (Archaeology).

Monitoring points during the study included:

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

2 Location and setting

The wind turbine proposed for erection at Grogarth Farm, just to the west of Tregony in the ecclesiastical parish of Cornelly is to be located at SW 91563 45581. The site is located just off the top of a north-east to south-west trending spur of land on a dissected plateau to the west of the valley of the River Fal, the turbine site being at 85m OD. The land falls quite steeply to the north towards a small tributary of the River Fal, to the east to the Fal valley and to the south into another stream valley feeding into the Fal. The field proposed for the development is more or less square in plan and measures just under 3.9Ha in extent. Tregony reservoir is sited in its north-western corner. The field is accessed by a 128m long lane from Great Grogarth farm in its south-eastern corner. The B road linking Tregony to the A3078 at Freewater and then to the A390 at Trevorva passes just to the south of the field.

The underlying bedrock is of the Portscatho Formation, part of the Gramscatho Group, which consists of mudstones and sandstones of the mid to late Devonian period. This is overlain by soils of the Denbigh 2 series, these being typically well-drained fine loams over slate and shale, used in Cornwall for a combination of dairying and arable. This is reflected in recorded land-use, the fields being predominantly in arable in 1840 (Tithe Map evidence) and predominantly pasture in 2005 and in 2011 had been sown with a grass crop.

The Historic Landscape Characterisation for the project area (Fig 11) is Anciently Enclosed Land (AEL), farmland medieval, the network of field boundaries across much of this area reflecting a mixture of the fossilisation of former medieval cropping units within which were laid out the strip fields characteristic of this period (particularly to the south-east of Grogarth), together with larger, open, barton-type enclosures on the higher ground to its north-west. The postcode for Grogarth Farm is TR2 5UE.

No Public Rights of Way traverse the project area.

3 Designations

3.1 National

There are no designated sites or structures of national importance within the field in which the turbine is proposed to be sited.

Within the 1.5Km and 2.5Km radius viewsheds of the site proposed for the wind turbine there are three Scheduled Monuments, three Grade 1 Listed Buildings, three Grade II*

Listed Buildings, thirty-three Grade II Listed Buildings and two Conservation Areas. Two Registered Parks and Gardens fall within the 5Km radius viewshed.

3.2 Regional/county

No designations of regional or county importance apply to the field within which the turbine is to be sited. Within the 1.5Km radius, land to the south-west of the site is designated as an Area of Outstanding Natural Beauty (AONB). Valley woodlands within 1Km radius of the site and extending out to the 5Km radius from the site are designated as Cornwall Nature Conservation Sites. The landscape around Trewarthenick, 1Km to the southwest of the site is designated as an Area of Great Scientific Value (AGSV). There is some intervisibility between the proposed turbine and some parts of these designated areas.

3.3 Local

No designations of local significance apply to the proposed turbine site.

3.4 Undesignated heritage assets

Nineteen undesignated heritage assets fall within the 1Km radius of the site. Some are recorded as the locations of documented sites or cropmarks, rather than features with visible above-ground remains.

4 Site history

The earliest known feature within the area surrounding the proposed wind turbine consists of a ploughed down barrow 300m to its south-west (MCO2749). This would have been constructed during the Bronze Age (*circa* 1800BC to 800 BC), and is likely to originally have been one of a group sited along the prominent ridge running away to the south-west, being deliberately sited there so as to be visible from the landscape to the south-east. At the time of its construction, the ridge (including the site proposed for the wind turbine) would probably have been open, upland grazing land overlooking more sheltered, fertile farmland to the south-east running down to the River Fal. One possible example of a Bronze Age enclosure (MCO21569) is at SW 90839 45961, 850m to the north-west of the proposed wind turbine site.

By the Iron Age, a substantial hillfort had been constructed on a spur overlooking the River Fal at Golden 1.5Km to the north-north-east of the application site. This would have been an important local centre, and would almost certainly have been at the centre of a network of farms set out within a mixture of enclosed land, open grazing land in the more elevated parts of the landscape and deciduous woodland cloaking the valley sides. During the Romano-British period, many farmsteads seem to have become enclosed within defensive banks, one example being 600m to the south-west of the application site (MCO21596), set just to the south of the ridge top. By this period its associated enclosed land can be seen from the NMP plots (Fig 13) to have extended up onto the ridge. Three other examples lie just under 500m to the north on the flanks of the ridge across the valley from Grogarth at Golden Cot, again with associated field systems, with many further examples in the surrounding area (for example 750m to the west), and it seems probable that by this time this had become a relatively densely settled and farmed landscape.

The evidence suggests substantial continuity of settlement and farming in this area into the medieval period, with Tregony, first mentioned in 1049 (as *Truf Hrigoni*) developing into a borough by 1197 and having important quays, given its location on what was at the time, probably the head of navigation on the Fal and an important bridging point across the river. Tregony sited at least one corn mill as well as a castle, a market place and the early post-conquest church of St. James. In the 14th century it also had a thriving serge industry producing 'Tregony Cloth', suggesting that much of the

surrounding land was given over to sheep grazing. Boundaries fossilising some elements of the former medieval open field strips survive to the north of the settlement.

The settlement of Grogarth is first recorded *circa* 1200 when it was spelt '*Gorgoyth*'. The name is Cornish, and possibly contains the elements *gruk* meaning 'heather', and *goth* meaning 'water course'. According to Henderson, the Manor of Grogarth or Grogarth gave its name anciently to the parish of Cornelly, the manor limits defining the parish. Subdivision of the settlement into Grogarth Wartha and Grogarth Wollas (Upper and Lower Grogarth) is not documented during the medieval period and may have taken place in the post-medieval period; it is assumed that the medieval site was at Grogarth Wartha. In 1699 Joel Gascoyne named the farm '*Croger*', in 1748 Martyn's map showed it as '*Grogath*', as did the 1809 Ordnance Survey 1" mapping. The *circa* 1840 Cornelly Tithe Map named the farm as '*Great Grogarth*' and the 1841 census (and those which followed) as '*Grogarth Wartha*', whilst the Ordnance Survey 1st and 2nd Edition 25" mapping (*circa* 1878 and 1907) named the farm '*Grogarth Wartha*' (upper Grogarth), in distinction from '*Grogarth Wallas*' (Lower Grogarth, just to the south of Cornelly Church).

The present house at Grogarth Wartha, on the site of a medieval manor, is a mainly eighteenth century, two storey rubble walled house with slate roofs. The core of the building is, however, probably earlier, though the Listing description suggests that there are no signs of reused materials from the medieval manor in either the house or the farm buildings. The woodland to the north (MDCO28681) was recorded by the Nature Conservancy Council as an area of ancient woodland, probably being medieval in origin.

The church at Cornelly (MCO6229) probably originated as a chapelry of Cuby and may have pre-Norman origins, being sited within a circular embanked enclosure (MCO2482) typical of early medieval ecclesiastical sites known as a '*lann*'. The church is predominantly of 13th century construction, though has some later additions, and was '*restored*' during the 19th century. An early medieval pound (MCO28655) is noted just to the south of the church, whilst the site of a possible holy well dedicated to St. Wenna (MCO6977) lies 640m to the west of the proposed turbine site.

Penpell, to the south-west of Grogarth, was first recorded in the Domesday Book of 1086, being held by Hamelin from the Count of Mortain in the Manor of Tybesta, the land having previously been held by Brictric; Tregony to the east was held by Frawin from the Count of Mortain in 1086, and had previously been held by Aelfric. The land which became Grogarth Farm in the following years was probably part of one of these holdings at the time that the information collected for the Domesday Book was being recorded.

The Domesday description of Penpell describes land for three ploughs, with two smallholders, two acres of woodland and 60 acres of pasture. Tregony was described as having land for five ploughs, three villagers and six smallholders, with three acres of woodland and five acres of pasture. This suggests a landscape within which the woodland flanking the valley sides was an important resource; substantial areas of sheep grazing would have been sited on the more favourable land along the spur and its flanks.

The landscape to the west of Tregony during the medieval period would have been divided up amongst a series of substantial farms, including Grogarth, Penpell, Killiow (first recorded in 1327), Golden (first recorded in 1329) and Pomery (first recorded in 1334), several of which were high status farmsteads, reflecting the richness of the local agricultural economy during the medieval period.

Some of these settlements, and in particular Golden Manor, remained important and wealthy estates through the post-medieval period, whilst the local landscape remained divided up between substantial farmsteads, as is still the case. Most of the settlements within this area are of medieval origin.

The Cornelly Tithe Assessment (drawn up in the years just before 1840) records '*Great Grogarth*' as owned by H.R. Bettesworth and farmed by Edward Hocking. The farm extended to 96 acres and 26 perches, and was predominantly in arable, with a little pasture. The field within which the wind turbine is proposed was recorded as '*Great Close*' (Cornelly TA number 37). The census returns for Cornelly show that Grogarth Wartha was being farmed by James Hocking aged 25 and employing three farm servants in 1841; In 1851 the tenant was Edward Hocking aged 79 and born in St. Stephens, who was described as farming 75 acres and employing one person; by 1861 the tenancy had passed to William Murton, 51, born in Cuby, farming 60 acres and employing eleven men and a boy; in 1871 the farm had been taken on by John Hotten, born in Cornelly and aged 33, farming 90 acres and employing one labourer; by 1881 the farm had reverted to William Murton, now 71, farming 90 acres and employing a man and a boy, and in 1891 Grogarth was being farmed by Stephen Pascoe, aged 44 and born in Perranuthnoe. The census returns indicates that there was no continuity of tenancy at Grogarth throughout the second part of the 19th century.

5 Historic Landscape Characterisation

Historic Landscape Characterisation, developed for Cornwall from 1994 (Cornwall County Council 1996), captures the varying evidence for change and earlier landscapes existing in the present landscape, identifying extents of landscape with similar essential or distinguishing features, principally field boundary patterns. These extents have been mapped across the county, forming a continuous patchwork of Units of various Historic Landscape Character (HLC) Types (Fig 11). HLC Units of any given Type share a similar distinctive character today, the result of historic processes common to that Type, and tend to contain a predictable range of archaeological sites and historic features.

As shown in Fig 11, the land proposed for the turbine site at Grogarth Farm is part of an extensive tract of the 'Medieval farmland' HLC Type of 'Anciently Enclosed Land' (AEL).

Landscapes of this Type are typically dominated by fields, now a mixture of arable (often uniform, sprayed and weed-free, worked by machine not hand), permanent pasture, improved grassland (again usually uniform, single-species and less than semi-natural), some small fields of traditional meadow, usually on less modern farms, and small patches of lowland bog, woodland and scrub, again mainly on the less modern farms.

The fields are distinguished by their patterns and their dividing walls and hedges. The patterns are all irregular in appearance with very few straight lines. Even those with parallel boundaries (mainly enclosed medieval strip fields) do not usually appear regular when viewed from ground level, the undulating land twisting and distorting lines.

The two main field pattern types in AEL are more or less directly derived from medieval strips. Enclosed strips developed where the greater numbers of households in the larger hamlets had difficulty coming to agreements to re-organise complex landholding arrangements. Farmers tended then to enclose individual strips, or bundles of just two or three, and the result is a pattern of enclosed strip fields closely similar to that of the original open field. More often the small Cornish hamlets radically re-organised their field systems into ones with larger, block-shaped fields. Even here, though, it is usually possible to identify the medieval cropping units or furlongs. These tend to be roughly square with slightly sinuous but nevertheless fairly parallel sides. Medieval cropping units constitute the highest proportion of the Anciently Enclosed Land, consequently contributing a great deal to its historic landscape character. Barton field systems have larger rectangular fields up to 20 acres (8 hectares) in extent that do not appear to have derived from strip field systems. It may be imagined that in the later medieval or early post-medieval periods the stewards of local yeomen, who had established control

of previously communal field systems, or abandoned deer parks redesigned the fields to better suit the needs of large non-communal landholders.

All field boundaries were built to be stock-proof and most are covered with vegetation, including trees. The boundaries on the higher or more exposed ground tend to lack trees but do have brambles, thorn and furze bushes. In lowlands hedgerow trees include large numbers of mature oak and ash. Sycamore trees are generally younger and most have probably colonised hedges rather than been deliberately planted. Hedges in some parts of Cornwall, for example the Roseland, were once dominated by elm and these consequently are now much barer landscape than they would have been until the 1970s.

Being the land of ancient enclosure, this is also the principal area of ancient settlement. This mainly takes the form of single farms now, although from later prehistory through to the medieval, and often right into the modern period, the Type would have been dominated by small farming hamlets. Many enclosed or defended later prehistoric hamlets, or 'rounds', survive either as earthworks or as underground remains producing cropmarks on aerial photos. There may have been as many unenclosed or 'open' prehistoric and Romano-British settlements as there were rounds, but open settlements, with houses more loosely scattered through fields tend to be less easy to detect archaeologically.

This Type has considerable potential for further research. Each farming settlement will contain a wealth of historical, architectural and archaeological information. Surveys of field systems yield considerable agricultural, social and tenurial information. Buried archaeological features from prehistoric, medieval and post-medieval periods and including settlements, fields, ceremonial and ritual monuments and industrial remains can be expected virtually anywhere in this Type.

6 Results of viewshed analysis

The Zone of Theoretical Visibility (ZTV) for the proposed turbine (that is, the area of the surrounding historic landscape which can be seen from the site and from where the site can be seen) generated for the project is relatively extensive given the elevated site selected for the wind turbine and its height. However, intervisibility between the proposed turbine and some of the sites within the surrounding landscape may be restricted, reduced or blocked by the significantly dissected topography, tree planting, mature hedges or (in locales such as Tregony) by other buildings. Visual impact also diminishes with distance, even where locally prominent features like wind turbines are skyline features, and particularly where they are painted white so as to blend in with sky tones. Wind turbines, by their nature, introduce new vertical elements into landscapes in which this type of feature has previously only been represented by church towers, mature trees, or runs of electricity transmission pylons.

In some circumstances, this may impact on the visual setting of significant historic or archaeological sites which were designed to be visually dominant within the landscape such as church towers, or may intrude into designed views or vistas, for instance within parkscapes at Trewithen or Trewarthenick.

The following sections list designated heritage assets within the 5Km, 2.5Km and 1.5Km radii viewshed and undesignated heritage assets within the 1Km radius viewshed. In each instance, impacts on settings are identified. These are summarised in Section 10.

6.1 Scheduled Monuments within the 2.5Km radius viewshed

See Fig 15.

Golden Camp Hillfort DCO928 SW 92433 46876

The monument consists of a prehistoric large univallate hillfort known as Golden Camp, located on a south facing slope at the eastern end of a spur which overlooks the west bank of the River Fal. The defences enclose an irregular pear-shaped area of about 3.4ha which tapers to a blunted point at its eastern end; the wider and squarer western end has what is considered to be an original entrance through the defences. The interior of the hillfort has maximum dimensions of 290m east-west by 160m north-south and is defended by a single rampart and ditch which is well preserved over much of its circuit. The rampart, which is flat topped, has a considerable inner and outer scarp; it has an average height of 1.5m and achieves an average width of 10m where it survives best on the north and west sides, the southern side having been reduced by cultivation. The rampart is fronted by a 'U'-shaped ditch which is on average 1.8m deep and 4.7m wide, but is wider and somewhat deeper along the western side where the ground is flatter; elsewhere it has been filled by cultivation. Several cuts through the rampart at various points on its circuit are considered to be relatively modern but a 10m wide causeway on the western side, where the ditch terminals inturn slightly, probably marks the site of the original entrance; this gap also has the advantage of facing the only reasonably level approach. Golden Camp is considered to have been occupied in the Iron Age but it is unclear whether this occupation would have continued after the establishment of the late pre-Roman Iron Age and Romano-British site at Carvossa some 1.5km to the northwest. The monument may have been utilised for some unknown defensive function as late as the medieval period as it is mentioned in land deeds of the 12th and 13th century where it is described as a 'small castle'.

Impacts on setting

Viewshed analysis indicated that the proposed wind turbine at Grogarth would be fully intervisible with Golden Camp at a distance of 1.5Km. Although full intervisibility was suggested by the viewshed analysis, in practice mature trees flanking the lane to its south wholly block views from the hillfort in this direction. In addition, the landscape surrounding the hillfort is now very different from that within which it was constructed. As a result the impact on the setting of Golden Camp from the development is judged to be neutral.

Round 500m west of Parkengear DCO1091 SW 89929 47158

The round is sub-circular in plan, measuring approximately 110m across. It has a single enclosing bank of earth and small stones which, around the north side, has been modified to function as a field boundary. The west half of this is a scarp, around 2.8m wide and up to 3.3m high externally, with post-medieval style stone revetment in places. To the east the bank takes the form of a hedge bank 2m wide and 1m high with some stone facing. Around the south side the enclosing bank is visible as an earthwork, spread by cultivation to a width of 10m-15m, and up to around 0.8m high outside, and 0.3m inside. An external ditch surrounding the bank, partly silted or filled up, appears on aerial photographs. It can also be seen on the ground around the north and on the south east sides as a curving hollow up to 9m wide and 0.4m deep. The interior of the round generally slopes west, following the natural gradient, but it is raised and slightly concave. This site is associated with other rounds nearby, some of which are the subject of separate schedulings.

Impacts on setting

The south-eastern part of the round is within the viewshed at a distance of 2.2Km. Locally, vegetation reduces intervisibility between the sites, though it is judged likely that the turbine will appear on the south-eastern skyline from the round. Given the considerable changes which have taken place within the surrounding landscape since the construction of the round, the impacts on its setting are judged to be negative/minor.

Holy well of St. Cuby DCO1080 SW 92788 45096

The well house, projecting from a bank 2m high on its northwest side, has a sub-square overall plan, measuring approximately 1.9m across and 1.8m high externally. It is built of unmortared horizontally laid shillet rubble (a local stone) and is corbelled, or laid with each successive course of stones slightly overlapping the one below, rising to a capping slab. The well chamber within is asymmetrical, the rounded rear corner on the north west side extending beyond that on the south west side, and the roof reaching its apex towards the front (ESE) side. The chamber measures approximately 0.8m SSW-NNE by 1.3m WNW-ESE, and is up to 1m high above the outside ground level. Its walling continues below ground level to form a well shaft at least 0.5m deep. The well has a doorway on the ESE side, 0.8m wide and 0.9m high. This has a relatively recent iron lintel, and remains of a door frame and fittings indicating the former position of a timber door, again relatively recent, are also shown on an old photograph. A notch in the stonework on the NNE side of the doorway is thought to have been cut to accommodate a door.

An area in front of the well house, measuring approximately 1.5m east-west by 1.4m north-south, contains remains of an associated pump. This area is defined on the north and south sides by post-medieval walls 0.5m-1m wide and 1m-1.5m high of horizontally laid shillet rubble (that on the south side having a coping of vertically set slabs). Within this area is a concrete or masonry post, 1.25m east of the well house and in front of the south side of its doorway. This post is 0.25m square and 0.2m high. It is recorded on the old photograph, which also shows a pump beside it against the wall on the south of the well, suggesting it may have been used to support receptacles for water pumped from the well.

Impacts on setting

There may be limited intervisibility between the holy well and the proposed wind turbine at a distance of 1.3Km, but given the intervening buildings and the development of the settlement of Tregony since its construction, the likely impacts on the setting of this site are judged to be negligible.

6.2 Listed Buildings Grade 1 within the 2.5 Km radius viewshed

See Fig 15.

Cornelly Church DCO5693 SW 91659 45159

The parish Church of the former ecclesiastical parish is dedicated to St Cornelly and incorporates elements constructed in the thirteenth, fourteenth, sixteenth, seventeenth and eighteenth centuries. The church was restored in 1866 under the guidance of Piers St Aubyn. The church is of slatestone rubble construction with granite dressings and Delabole slate roofs with coped gable ends except to the chancel. The nave and chancel are under one roof. There is a west tower, a short north aisle and a south porch. The eaves walling and the upper walling of the east and west gables are part of the C19 restoration. The church was built in the middle of a medieval playing place or round (a prehistoric enclosed settlement).

Impacts on setting

The church is 420m away from the site of the proposed wind turbine on the 55m contour and therefore set 30m lower than the development site. Despite the proximity of the turbine to the church, it is likely that only the upper part of the wind turbine would be visible from ground level at the church. Nevertheless, as viewed from the south and south-east, the proposed wind turbine would have an impact on the setting of the church and church tower. This impact is judged to be negative/moderate from this direction.

Church of St. Cuby DCO5239 SW 92763 45254

The parish church is dedicated to St Cuby, established *circa* C6th, but the present structure is of twelfth, fourteenth and fifteenth century construction, though partly rebuilt and lengthened in 1828, and restored by Piers St. Aubyn *circa* 1899. The building is of slatestone rubble construction with granite dressings and Delabole slate roofs with gable ends and consists of a nave, a chancel, a west tower, a north transept, a south aisle and a south porch. The north wall was mostly rebuilt in 1828 but earlier walling survives to the left of the transept.

Impacts on setting

The church is at a distance of 1.2Km from the site of the proposed wind turbine, set at the north-eastern end of Fore Street, Tregony on an elevated site. There might be some impacts on the setting of the church from the north east, though trees in the churchyard will significantly limit this. Given that the visual setting of the church primarily comprises the built environment of the settlement of Tregony, impacts on its setting are judged to be negative/minor to neutral.

Trewithen House DCO4047 SW 91309 47513

This country house was constructed in 1723, and was added to by Thomas Edwards *circa* 1738 and by Sir Robert Taylor *circa* 1750 to the 1760s. The house is constructed of granite ashlar, Pentewan stone ashlar and stucco with hipped slate roofs and rendered stacks. It is of double depth plan with central stairs on two storeys. The north frontage is in 2:5:2 bays with the flanking bays broken forward, constructed of incised stucco with granite keystones.

Impacts on setting

Trewithen House is 1.95Km from the proposed wind turbine site, and intervisibility between the house and the development is likely to be almost wholly broken up by extensive tree plantings to the rear of the house. As a result, impacts on the setting of the house are judged to be likely to be negligible (see below for impacts on its park, gardens and woodland).

6.3 Listed Buildings Grade II* within the 2.5Km radius viewshed

See Fig 15.

Tregony almshouses DCO3984 SW 92348 44812

A set of almshouses erected in 1696 by Hugh Boscawen and restored in 1895 to plans drawn up by Silvanus Trevail. The almshouses are of slatestone rubble construction with granite dressings and Delabole slate roof with external stone stacks to the gable ends and external stone lateral stacks with small slate gables. The building has a long single depth four room plan with an open gallery along the first floor front and is on two storeys. The north west street frontage has an open wooden gallery with wooden posts and close boarded balustrade which was added in 1895, this being supported by six short granite pillars on a granite coped rubble wall and having access up a short flight of granite steps between the middle two closer set pillars. There is a partly enclosed stone rubble stair turret in its original position to the left with an 1895 construction dogleg stair.

Impacts on setting

Viewshed analysis suggests there will be some degree of intervisibility between the wind turbine and the almshouses, which face the development site over an intervening modern bungalow on the northern side of the street. Impacts on the setting of the almshouse are likely to be negligible.

Keep at Golden Manor DCO4080 SW 92109 46846

A small house, possibly originally the gatehouse to Golden Manor and dating to the C16th. The building is of brick construction with granite quoins and dressings. It is tile hung, with a tiled roof and brick chimney and is essentially a rectangular Tudor building with a C19th wing, and is on two storeys. The C16th brick diaper work incorporated into the building is extremely rare, if not unique in Cornwall.

Impacts on setting

Golden Keep is 1.39Km from the proposed development site. The viewshed analysis suggests possible intervisibility between the two, though in practice there is almost total blocking of the sightline by intervening vegetation and buildings. The impact on the setting of the keep is judged likely to be neutral.

Barn at Golden Manor DCO5441 SW 92102 46894

A barn which was probably originally part of a monastic complex dating to the C15th to C16th with some *circa* C19 rebuilding, with granite ashlar gate piers (of probable C18th date) and an adjoining building to east. The building is of shale rubble construction with granite dressings and has a C20th corrugated asbestos gabled roof. The building is on an L-shaped plan with a quadrant newel stair turret set in the in angle and is on two storeys and eight bays. The west front has been much repaired and rebuilt but is essentially late medieval in form.

An 1879 date stone probably indicates a repair date but may possibly relate to the rebuilding of the south gable end which incorporates many reused fragments including a C16th granite arch over the door and diabolo stopped cut down jambs.

Impacts on setting

This Grade II* listed building is 1.42Km away from the site of the proposed wind turbine. In view of the presence of intervening trees and buildings, intervisibility is likely to be almost wholly blocked, and impacts on its setting are judged to be neutral.

6.4 Registered Parks and Gardens within the 2.5Km viewshed

See Fig 16.

Trewithen Grade II* DCO18 centred SW 91413 47361

History

Trewithen, in the late C17 the property of Courtenay Williams, was purchased in 1715 by Philip Hawkins of Pennans. Philip Hawkins made improvements to the existing house in 1723, and in 1730 employed James Gibbs as his architect. When Hawkins died without issue in 1738 the estate passed to his nephew, Thomas Hawkins, who continued the development of the pleasure grounds and park. A plan of 1747 shows the extensive landscape developed by Thomas Hawkins before his death in 1766, while an account written by Hawkins' father-in-law, James Heywood, in 1757, and an engraving by William Borlase published in 1758 provide further evidence for the appearance of the house and grounds in the mid C18. Hawkins also made changes to the house, employing the Greenwich architect Thomas Edwards in 1738, and Sir Robert Taylor in the 1760s. Thomas Hawkins was succeeded in 1766 by his son, Sir Christopher Hawkins, who extended the property and in 1824 commissioned a plan from Henry St Aubyn to extend the park to the north, east, and west of the house, producing a picturesque circuit ride. At his death without issue in 1829 Trewithen passed to his

nephew, Christopher Henry Thomas Hawkins, whose father, John Hawkins, owned Bignor Park, Sussex and managed Trewithen during his son's minority. During the First World War the government requisitioned timber from the pleasure grounds, the clearance of which allowed the establishment of the early C20 woodland garden planted with collections of rhododendrons and camellias. In the early and mid C20 notable hybrid rhododendrons were raised at Trewithen.

Drives

Trewithen is approached from the A390 road to the north, along a *circa* 400m drive through the north park to a junction north of the stables. A secondary drive leads south to the stable and service yard north-west of the house. The principal drive leads south-east from this point to enter the carriage court north of the house. This drive encloses a circular lawn, while to the east and west the court is enclosed by a pair of mid C18 brick pavilions (see above). To the north of the carriage circle is a lawn retained by a ha-ha which allows views north across the park. A further 450m long drive crossing the east park drive passes to the south of the kitchen garden and Home Farm which are approached by a service drive c 100m east-north-east of the house. This east drive approaches the carriage circle from the north-east. A secondary drive leads west below the ha-ha wall retaining the north lawn to a junction with the west drive to the north of the stables. The present arrangement of the west drive and carriage court north of the house broadly reflects that shown on a sketch plan of *circa* 1730 and the 1747 plan; the east and west drives assumed their present form as part of improvements made under the direction of Henry St Aubyn in 1824.

House and gardens

Trewithen (listed grade I) stands towards the northern end of a levelled platform near the centre of the site. It possibly incorporates elements of an earlier house which was rebuilt by Philip Hawkins in 1723, to plans provided by James Gibbs. Further alterations were made for Thomas Hawkins by Thomas Edwards *circa* 1738, whilst in the 1760s Sir Robert Taylor made additions to the house for Sir Christopher Hawkins. Plans of *circa* 1790 by Matthew Brettingham for remodelling the house were not implemented. In the early C19 Henry Harrison may have further altered the house for C.H.T. Hawkins, having also worked for his father at Bignor Park, Sussex.

The informal woodland gardens and pleasure grounds are situated principally to the south and west of the house, with an area of lawns on the east-facing slope to the east of the house, and a walled garden to the west, immediately to the south of the service and stable yard, which incorporates a central lawn and flower beds, a brick-edged pool, a raised terrace and a pergola and summerhouse. The walled garden was developed in the early C20 by George Johnstone from a C18th laundry yard; it is not shown on the 1747 Plan.

The kitchen garden is shown on its present site on the 1747 Plan, although at this date it comprised a single enclosure with the pair of pavilions and implement shed forming a central symmetrical feature on the north wall. The garden was altered in the late C18 or early C19 when the construction of the pond to the west caused the farm buildings to be rearranged. It is shown in its present form on St Aubyn's Plan of 1824 and the estate plan of 1841.

To the south of the house are a gravelled walk and a level lawn flanked to the east and west and enclosed to the south by mature deciduous trees underplanted with shrubs. The lawn and associated planting was created by George Johnstone in the years following the First World War when some 300 beech trees were felled to the south of the house. This woodland, which had developed in the late C18th and early C19th, had replaced a rectangular lawn shown on the 1747 plan extending from the house to the southern boundary of the pleasure grounds, creating a vista framed by trees. The gravelled walk leads east to join a terrace walk which extends *circa* 100m south along the boundary of the pleasure grounds, allowing views east across the park; this walk is screened from the south lawn by mature trees and shrubs. The walk is crossed by a ha-

ha which runs from east to west in a serpentine line across the pleasure grounds. Beyond the ha-ha the east terrace walk continues for *circa* 80m through an avenue of sycamores to reach the southern boundary of the pleasure grounds which is marked by a further ha-ha, below which a late C20 mixed shelter plantation extends west parallel to the boundary of the pleasure grounds. The 1747 plan shows the east terrace extending *circa* 100m south from the house to reach a square bastion, from which a walk of similar width led west across the south lawn to reach further pleasure grounds south-west of the house. A narrower walk was shown extending south of the square bastion along the south-east boundary of the pleasure grounds before returning west along the southern boundary to reach a circular bastion at the south-west corner of the pleasure grounds. The east terrace and sycamore avenue reflect the mid C18 plan, but neither the square bastion, the south walk nor circular bastion survives in its C18 form; these features are not shown on St Aubyn's Plan of 1824, or an estate plan of 1841. To the west and south-west of the south lawn mature deciduous woodland is divided by a series of gravel walks and cherry laurel windbreaks; each area is planted with specialist collections of ornamental shrubs.

Some 250m south-west of the house, an old quarry known as the 'Cock Pit' is planted with magnolias, rhododendrons, and tree ferns; this feature is shown on the 1841 estate plan. From the north-east corner of the quarry garden a gravel walk leads *circa* 100m north-north-west through the woodland garden to reach a junction where walks lead east across the south lawn, and west along the north side of a meadow planted in the mid and late C20 with specimen trees and shrubs to reach the water garden in a valley c 400m south-west of the house. To the north of this junction the walk continues *circa* 130m north-north-east, passing through a series of glades divided by further cherry laurel and conifer hedges. A circular glade *circa* 100m south-west of the house contains a late C20 circular fountain and pool; this feature echoes a circular enclosure shown in the wooded pleasure grounds on St Aubyn's Plan of 1824, and the estate plan of 1841. An early C18 wilderness with serpentine walks and a circular feature containing a statue of Pomona formerly located in this area does not survive.

The water garden in the valley south-west of the house comprises a stream which has been dammed to form a chain of three ponds. A walk descends *circa* 200m from the pleasure grounds following the course of a small stream to reach a further stream in a valley which ascends north-west to the chain of ponds. An avenue allows views north into the park and south across a west-facing sloping meadow and leads *circa* 200m east-north-east to join the west drive 240m north-west of the house. A ride or walk is shown on the 1747 Plan leading south-west from the pleasure grounds into the valley; this corresponds to the present walk leading to the water garden. St Aubyn's Plan (1824) shows the circuit walk leading through the valley past a single large pond and returning to join the west drive; this area of the pleasure grounds was developed in the early C19th as part of St Aubyn's scheme of improvement for Sir Christopher Hawkins. The estate plan of 1841 shows the circuit in its present form, with a chain of three ponds west-south-west of the house. A further area of mid and late C20 ornamental planting adjoins an irregularly shaped pond 130m north-east of the house and immediately west of the drive leading to the Home Farm. The pond is not shown on the Plan of 1747, but is indicated on St Aubyn's 1824 plan.

Park

The park is situated on undulating ground and surrounds the house and pleasure grounds on all sides. To the north and north-west of the house the park remains pasture with scattered specimen trees and clumps. To the north-west the A390 is screened by a mixed boundary plantation, while there are further boundary plantations 400m north and 370m north-north-east of the house. The north and north-west park were developed from agricultural land by Sir Christopher Hawkins *circa* 1824 following the plan drawn up by Henry St Aubyn. Many of the ilex oaks which are a feature of the north park were introduced by John Hawkins after the succession of his son C.H.T. Hawkins in 1829. The 1747 Plan shows this area divided by hedges into large

agricultural enclosures, with a vista formed by irregularly sized clumps of trees extending north from the house. To the north-east of the house the park is today in arable cultivation, with boundary plantations to the north-east and east-north-east enclosed by sunk fences; this area was developed as park from agricultural land *circa* 1824 as part of Henry St Aubyn's scheme of improvements for Sir Christopher Hawkins. The east-facing slope below the house and pleasure grounds remains pasture with scattered specimen trees; it descends 320m from the house to a small stream which flows from north to south through the east park. The 1747 Plan shows a double avenue aligned on the east facade of the house descending to an approximately elliptical pond; these features do not survive today and it appears that St Aubyn's proposed serpentine water in the valley east of the house was not implemented. The park to the south, south-east, and south-west of the house and pleasure grounds is in mixed agricultural use, and is divided into four large enclosures; these broadly correspond to the divisions shown on the 1747 Plan. The minor road forming the southern boundary of the site is screened by a narrow plantation of pines 450m south-west of the house.

A park was enclosed at Trewithen before 1758, at which date Borlase showed the enclosures to the south and south-east of the house stocked with deer. By 1814 Lysons described the park at Trewithen as a 'paddock'. It assumed its present form and extent in the early C19 as part of a scheme of improvements for Sir Christopher Hawkins which is shown on the Plan of 1824.

Impacts on setting

Although there is intervisibility between much of the western, southern and eastern sections of the park, these do not appear to contain designed views extending towards the site proposed for the wind turbine at Grogarth. The planting on the southern fringes of the park is made up of groups of mature trees which would effectively break up intervisibility between the interior of the park and the turbine site, and as a result the impacts on the setting of the Registered Park and Garden at Trewithen is judged likely to be negative/minor.

Trewarthenick Grade II DCO11 centred SW 90501 45817

History

The estate of Trewarthenick was purchased by John Gregor, a wealthy Truro merchant, from Mr Ceely in 1640. Gregor's grandson, also John, known as 'The Giant', rebuilt an existing house on the site in 1680 and additional land around Trewarthenick was purchased in 1788. In 1791, Gregor's niece, Sarah Glanville, described Trewarthenick as *'very destitute of beauty, with few plantations, and the surrounding ground cut up into fields ... a public cart road ran close to the house'*. In 1792 Francis Gregor invited Humphry Repton (1752-1818) to prepare proposals for the improvement of the landscape; these were presented in the form of a Red Book. Francis Gregor implemented much of Repton's scheme and remodelled the house with advice from Matthew Brettingham. On inheriting the estate in 1825 Sarah Gregor commissioned the London architect Henry Harrison to make improvements to the house; at the same time further improvements were made in the grounds, possibly following previously unrealised elements of Repton's late C18 scheme. These changes are shown in an engraving by Thomas Allom (*circa* 1830).

Drives

Trewarthenick is approached from the A3078 to the north via a 400m long drive passing through lawns planted with trees and shrubs to the carriage court. This north drive is shown on Repton's 1793 scheme, but the lodge proposed to the west of the north entrance and illustrated in the Red Book was not implemented, and the service quarters are approached directly from a minor road to the west of the house. A further drive enters the north-east corner of the site from the A3078 640m to the north-east of the house. Repton's proposals for the north-east drive included a lodge at the entrance which was not implemented, and a drive sweeping south-west and west across the

park; this drive was not constructed in this form. Another drive or track shown on the 1888 OS map leading south-west across the park to the house from the A3078 opposite Little Grogarth does not survive. In the C19th the site was approached from the north-north-west along a drive which followed the course of the present A3078 from a lodge at Freewater. This drive was adopted as a public road in the early C20 and its south-eastern end was realigned as a result. The north drive, which follows Repton's late C18 proposals, replaced earlier approaches to the house from the east, west, and north which are shown on a survey of 1788-9.

House and gardens

Trewarthenick (listed grade II) stands on a level terrace adjacent to the western boundary of the site. Informal gardens and pleasure grounds are situated to the north, east, and south of the house. Below the east facade a terrace is retained by early C19 rubble-stone walls with ashlar coping (listed grade II). The terrace, which is laid to lawn and planted with a row of twelve mature Irish yews, extends 130m from north-west to south-east and serves both to connect the pleasure grounds to the north and south of the house and as a ha-ha allowing views east across the park. The terrace formed part of Repton's late C18 scheme of improvement (Red Book 1793) and replaced a rectangular 'lawn' shown on the 1788-9 estate survey; Sarah Glanville described this as being separated from the park by a deep ha-ha across which the east drive passed on a bridge.

To the south-west of the house a high wall enclosing the service yards is screened by mixed shrubbery and specimen trees, while a further area of lawn extends below the south facade. This arrangement reflects that proposed by Repton in 1793, who suggested that the walled garden should be extended to the south, freeing its northern end to be incorporated into the pleasure grounds as an appropriate prospect from the conservatory which he proposed for the new south wing (Red Book 1793). The axis of the terrace is continued to the east of the walled garden, beyond which there is a further informal pleasure ground comprising lawns planted with specimen trees and shrubs including a collection of early C19th rhododendrons and C20th magnolias. This area, known as the Spring Garden, was developed *circa* 1828. Repton proposed a belt of shrubbery and plantation for this area which would serve to screen the kitchen garden and, *'sweeping boldly over the hill, may be continued to connect the terrace near the house, with those walks in the wood at a distance'* to the south of the park (Red Book 1793). A narrow belt of plantation extending south from the pleasure grounds and connecting with the plantations on the southern boundary of the park relate to Repton's scheme. To the north of the house is a further area of informal pleasure grounds comprising lawns planted with groups of specimen trees and shrubs and, some 50m north of the house, a small informal pond. Laid out in a Picturesque style, this area was probably developed for Sarah Gregor *circa* 1828, and does not relate to any of Repton's late C18 proposals. To the north of this area, and to the west of the north drive c 210m north-west of the house, is an area known as the Summer Garden developed in the late C20th.

The kitchen garden is situated on a south-east-facing slope c 80m south of the house. Approximately rectangular on plan, the garden is enclosed by stone walls to the west, south, and east, and by an irregular range of buildings to the north. The kitchen garden was extended to the south in the late C18 or early C19 following the advice of Humphry Repton.

Park

The park lies to the east of the house and is today in mixed agricultural use, with areas of pasture and scattered deciduous trees immediately to the east and north-east of the house, and areas in arable cultivation to the south-east. The park is defined by a mixed boundary plantation to the north which screens the A3078 road, and by further mixed plantations to the west, south-west, and south. Scattered trees and groups of trees are planted along the eastern boundary of the park. A belt of woodland extends north-

north-west up a valley which extends from the southern boundary plantation. Within this irregularly shaped plantation is an informal pond 500m south-east of the house, and a former quarry 520m south-east of the house. The 1788-9 survey of Trewarthenick and Repton's 1793 plan both show this belt of woodland extending further north across the park, but by 1888 it had been reduced to its present dimensions. The north and west boundary plantations accord to those proposed by Repton in 1793; Repton commented that *'the first object of improvement at Trewarthenick should be, to lead plantations from their hiding places in the valleys, to those situations where they may be most conspicuous'*. The north and north-east boundary plantations were intended by Repton to frame a view of the 'cornfield' to the east of the park from the house (ibid). A network of walks and rides extends through the boundary plantations forming a circuit of the park in accordance with Repton's advice that the plantations should be planted sufficiently deep to *'admit of covered walks to be cut through them with burst views'*. A late C17th or early C18th avenue which is shown in Prideaux's drawing (c 1728) and on the 1788-9 estate survey leading north-east from the house across the park was reduced by Repton in 1793 to form discrete clumps (ibid).

The park was developed in the late C18 and early C19 from a series of agricultural enclosures which are described on the 1788-9 survey as the 'Fields under the Lawn'; Sarah Gregor noted that the 'present lawn [park] was divided into ten enclosures by Cornish hedges'. The development of the park appears broadly to have followed the scheme proposed by Repton in 1793.

Impacts on setting

The viewshed analysis suggests that parts of the core area of the Registered Park and Garden at Trewarthenick, together with some elevations of the house would lie within the viewshed of the proposed development. The historic avenue running 65 degrees east of north from the house certainly headed in the general direction of Grogarth, but has now been removed, and the vista suggested by Repton in 1793 does not seem to have been created. The house is 1.7Km from the proposed wind turbine and the section of park within the viewshed lies between 1.6Km and 2Km from the turbine site. As Trewarthenick is not accessible to the public, it was not possible to check intervisibility between elements of the park and garden and the proposed development site. However, views from the periphery of the estate were checked from the adjacent A3078. These suggested that tree cover would block most views towards Grogarth, and that there might be limited intervisibility between the house and the proposed turbine. As a result, although the turbine would appear as a skyline feature from some areas of the park, this would be at some distance, and the overall impact on the setting of the park would be negative/minor to neutral.

6.5 Listed Buildings Grade II within the 1.5Km radius viewshed

See Fig 15.

Trewithen pavilions and implement shed DCO4026 SW 91519 47695

Impacts on setting

This structure is 2.1Km from the site of the proposed wind turbine. In view of the distance and the likelihood of only partial intervisibility, the impact on the setting of the monument is judged likely to be neutral.

Entrance gate and piers at Trewithen DCO4501 SW 91765 47754

Impacts on setting

This gate is 2.2Km away from the proposed wind turbine site. In view of the distance and the likelihood of local vegetation partially or wholly blocking intervisibility, no impacts on its setting are likely.

Milestone near Cornelly Church DCO15018 SW 91723 45171

This milestone is 420m to the south of the site of the proposed turbine, set at the end of the lane leading to the church and to Grogarth Wallas. Given the low height of the monument and its setting, impacts on its setting are judged to be negative/minor.

Trewarthenick House DCO5227 SW 90313 44263

Trewarthenick House is 1.8Km to the south of the proposed wind turbine site, and faces south west. There will be impacts on the setting of the house from the ground to its west, from where the turbine will be visible on the skyline above the house. Given the distance between the two, the effects of intervening trees on the northern periphery of the park and the coherence of the setting of the house provided by its surrounding park and gardens, impacts on its setting are likely to be negligible.

Holy well at Golden Manor DCO4081 SW 92227 46850

Impacts on setting

This holy well is at a distance of 1.4Km from the development site, and localised vegetation is likely to block or partially block intervisibility. As a result, no impacts on its setting are likely to occur

Wall at Golden Manor DCO5687 SW 92016 46859

Impacts on setting

Set 1.4Km from the proposed wind turbine at Grogarth, intervisibility with this structure is likely to be partially or wholly blocked by other buildings at Golden Manor, and impacts on its setting are considered unlikely.

Mounting block and adjacent wall at Golden Manor DCO4552 SW 92035 46882

Impacts on setting

Set 1.4Km from the proposed wind turbine at Grogarth, intervisibility with this structure is likely to be partially or wholly blocked by other buildings at Golden Manor, and impacts on its setting are considered unlikely.

Ice house, wall and ash house at Golden Manor DCO5686 SW 92053 46876

Impacts on setting

Set 1.4Km from the proposed wind turbine at Grogarth, intervisibility with this structure is likely to be partially or wholly blocked by other buildings at Golden Manor, and impacts on its setting are considered unlikely.

Kitchen garden walls adjoining service wing to west of Trewithen DCO4572 SW 91245 47507

Impacts on setting

1.9Km to the north of the proposed wind turbine site, intervisibility between the two sites is likely to be wholly or partially masked by trees to the south of the kitchen garden, and no impact on its setting is considered likely.

Chest tomb at Cuby Church DCO4968 SW 92772 45238

Impacts on setting

This chest tomb is set in the Cuby churchyard at the north end of Tregony. Its setting consists of the adjacent church and surrounding churchyard, whilst views of the development site will be broken up by trees around and within the churchyard. Impacts on the setting of the tomb are considered unlikely.

Chest tomb at Cuby Church DCO4029 SW 92774 45264

Impacts on setting

This chest tomb is set in the Cuby churchyard at the north end of Tregony. Its setting consists of the adjacent church and surrounding churchyard, whilst views of the development site will be broken up by trees around and within the churchyard. Impacts on the setting of the tomb are considered unlikely.

Note

The following Grade II Listed Buildings are set on Fore Street, Tregony and, as they effectively have similar settings, to prevent repetition, collective impact assessments are given for those on the south-eastern side of the street and those on the north-western side of the street.

Rose Cottage, Tregony DCO3982 SW 92735 45161

Tregony primary school DCO3977 SW 92660 45091

Penlee Cottage, Tregony DCO4939 SW 92666 45058

Tregony Methodist Church DCO5713 SW 92610 44998

Tregony Old Town Hall DCO5694 SW 92554 44964

Tregony House DCO5225 SW 92566 44937

Tregony Congregational Church and boundary wall DCO4938 SW 92542 44879

5 Fore Street, Tregony DCO5714 SW 92485 44863

6/7 Fore Street, Tregony DCO3978 SW 92496 44870

8 Fore Street, Tregony DCO3979 SW 92502 44876

13 Fore Street, Tregony DCO5715 SW 92554 44916

14 Fore Street, Tregony DCO5225 SW 92572 44926

16/17 Fore Street, Tregony DCO5226 SW 92578 44937

18 Fore Street, Tregony DCO5716 SW 92588 44947

35 Fore Street, Tregony DCO3982 SW 92722 45151

37 Fore Street, Tregony DCO 5717 SW 92731 45170

K6 telephone box, Tregony DCO5227 SW 92540 44919

Clock tower, Tregony DCO5228 SW 92523 44930

Kings Arms, Tregony DCO4937 SW 92553 44951

Myrtle House and Cottage DCO4019 SW 92469 44893

Castle Cottage DCO4942 SW 92343 44804

Beggar's Roost and adjacent raised pavement DCO3983 SW 93714 44802

Impacts on setting

Given the layout of the buildings flanking Fore Street, Tregony, it is probable that the wind turbine, which would be between 1Km and 1.2Km to the north-west of the settlement, will be visible to some degree or another through gaps between some of the buildings on its north-western side, thus having the potential for impacts on their settings. However, buildings in the north-eastern part of Fore Street tend to be closely-set, and views of the turbine from the street are unlikely. From Frog Lane south-westwards there are some gaps between the buildings on the northern-western side of Fore Street and the street becomes steeper, opening up views across the Fal Valley. As a result, views towards a turbine at Grogarth Farm will be widely available. There are, however, only two listed buildings in this part of the settlement. The impact on the

settings of listed buildings on the north-western side of Fore Street is therefore judged to be likely to be negative/minor in the south-western part of the settlement and neutral in the central and north-eastern part of the settlement.

The buildings on the south-eastern side of Fore Street will face the wind turbine, and it is possible that it will be visible to some degree from their upper floor windows, particularly in the south-western part of the settlement. However, the impact on the setting of listed buildings on the south-eastern side of Fore Street is judged likely to be negligible to neutral.

6.6 Conservation Areas within the 1.5Km radius viewshed

See Fig 16.

Tregony DCO40 centred SW 92263 44741

The historic core of the settlement of Tregony has been designated as a Conservation Area. Almost the whole of the Conservation Area falls within the 2.5Km viewshed, the exceptions being the area to the south-west around Daddiport/Tregony Bridge and an area in the north-east of the settlement (see Fig 16).

Intervisibility between elements of the Conservation Area and the proposed wind turbine at Grogarth would be available from areas of the settlement behind the buildings flanking Fore Street on its north-western side. To the south-east of Fore Street it is unlikely that the turbine would be visible given the masking effects of buildings. Overviews of Tregony from publicly-accessible areas to the east and north-east of the settlement are almost wholly blocked by modern buildings, vegetation and by the depth to which the B3287 is cut into the landscape as it rises up towards Tregonhay. Overviews of the settlement are almost wholly unavailable from the minor road to Goville from the northern end of Tregony, and from the A3078 from Reskivers on rising ground to its south and there are few points within the landscape surrounding Tregony within which the proposed turbine mast would form a substantial component in views of the settlement.

Impacts on setting

The historic core of Tregony is located around Fore Street, which runs from the former quays and bridgetown settlement at Daddiport, the bridging point across the Fal and the castle site, uphill towards Cuby Church, defining its Conservation Area. There has been some new development in Tregony, mostly on its south-eastern side (though also in the form of the schools to the north-east), whilst to its north-west, a substantial group of strip field boundaries provide an important surviving component of its historic context. The Fal and its valley are also an important part of the local setting of the settlement, given that the crossing point provided by the bridge and trade up the river Fal determined the location of the settlement and underpinned an important part of its former economy.

In historical terms, the sheep grazing available within the farmland which surrounded Tregony was also part of its setting, given that the settlement was the centre of a serge-making industry during the 14th century.

Topographically, Tregony occupies a spur of land running down to the valley of the River Fal. Fore Street runs south-west – north-east up this spur, with buildings fronting the road and gardens/burage plots stretching away at the rear of the houses. Within Tregony, therefore, the predominant focus of the settlement is up and down Fore Street and views out of the settlement into the surrounding landscape are constrained by the buildings which line Fore Street. At Daddiport adjacent to Tregony Bridge, the views open out, though the principal directions of view remain south-west and north-east, here the views are constrained by the valley sides rather than by the built environment. At the north-eastern end of the core of the settlement the views should open out to all quarters, but in practical terms are constrained by mature trees, and hedges flanking the B3287.

Historically, the local focus of the settlement consisted of the buildings flanking Fore Street; the immediate setting for these buildings consisted of the gardens/burgage plots behind the houses and the bridging point at the foot of the spur. Economically, the setting for the settlement consisted of the navigable sections of the River Fal and, in the wider landscape, the fields and open grazing within the parish. Today, other factors underpin activity within Tregony, and the importance of the relationships with the surrounding landscape and with the River Fal are much reduced.

The construction of the wind turbine proposed at Great Grogarth will inevitably introduce a new, highly visible and 21st century component into the medieval and post medieval landscape to the west of Tregony. Whilst this will inevitably have some impact on the setting of the Conservation Area, particularly within the burgage plots on the western side of Fore Street, this is unlikely, for the reasons set out above, to be significant. As a result, the impacts on the setting of the Tregony Conservation Area are judged to be negative/minor.

Probus DC058 centred SW 90131 47607

The historic core of Probus has been designated as a Conservation Area. A very small area of open land in the southern part of the Conservation Area falls within the 2.5Km radius viewshed.

Impacts on setting

The construction of the wind turbine at Grogarth will have a negligible negative impact on the Probus Conservation Area given the limited area affected, the distance between the Conservation Area and the proposed wind turbine and the partial nature of the intervisibility from only parts of the Conservation Area.

6.7 Undesignated heritage assets within the 1Km radius viewshed

See Fig 17.

Grogarth Barrow MCO 2749 SW 91255 45457

A low mound 340m to the west south west of the proposed turbine site represents the site of a rather ploughed down bronze age barrow of potentially regional or national importance.

Impacts on setting

Given the extensive changes to the landscape since this site was created, there will be only limited impacts on its setting.

Grogarth IA/RB field system MCO20991 SW 91177 45301

Cropmark evidence recorded by the NMP reveal elements of an Iron Age/Romano British field system associated with a nearby defended farm (Round MCO21596) at this location. The site is of local/regional importance.

Impacts on setting

Given the extensive changes to the landscape since this site was in use, there will be no impacts on its setting.

Grogarth Wallas IA/RB enclosure MCO21596 SW 91138 45211

Cropmark evidence recorded by the NMP reveals an Iron Age/Romano British defended farm at this location, with associated elements of its field system nearby. The site is of potentially of regional importance.

Impacts on setting

Given the extensive changes to the landscape since this site was in use, there will be no impacts on its setting.

Golden Cot IA/RB field system MCO20954 SW 91396 45971

Cropmark features recorded by the NMP reveal elements of an Iron Age/Romano British field system associated with nearby defended farms (Rounds MCO21579, MCO21580 and MCO21581) at this location. The site is of local importance.

Impacts on setting

Given the extensive changes to the landscape since this site was in use, there will be no impacts on its setting.

Golden Cot IA/RB enclosure MCO21579 SW 91485 46038

Cropmark evidence recorded by the NMP reveals an Iron Age/Romano British defended farm at this location, with associated elements of its field system nearby. The site is potentially of regional importance.

Impacts on setting

Given the extensive changes to the landscape since this site was in use, there will be no impacts on its setting.

Golden Cot IA/RB enclosure MCO 21580 SW 91708 45995

Cropmark evidence recorded by the NMP reveals an Iron Age/Romano British defended farm at this location, with associated elements of its field system nearby. The site is potentially of regional importance.

Impacts on setting

Given the extensive changes to the landscape since this site was in use, there will be no impacts on its setting.

Golden Cot IA/RB enclosure MCO21581 SW 91825 45991

Cropmark evidence recorded by the NMP reveals an Iron Age/Romano British defended farm at this location, with associated elements of its field system nearby. The site is potentially of regional importance.

Impacts on setting

Given the extensive changes to the landscape since this site was in use, there will be no impacts on its setting.

Freewater signpost MCO55786 SW 91119 45659

A 19th century signpost is sited at this crossroads. The site is of local importance.

Impacts on setting

There are unlikely to be any significant impacts on the setting of this feature.

Freewater milestone MCO53411 SW 91116 45654

A 19th century milestone is sited at this crossroads. The site is of local importance.

Impacts on setting

There are unlikely to be any significant impacts on the setting of this feature.

Field boundary near Freewater MCO55639 SW 91084 45710

A field boundary near Freewater Cross is likely to be of medieval date and is of local importance.

Impacts on setting

There are unlikely to be any significant impacts on the setting of this feature.

Pound at Grogarth Wallas MCO28655 SW 91626 45071

A parish pound documented near Grogarth Walls is likely to be of early medieval date.

Impacts on setting

The site no longer survives, so there will be no impacts on its setting.

Milestone at Grogarth Wallas MCO53414 SW 91731 45168

A 19th century milestone of local importance is sited at this road junction.

Impacts on setting

There are unlikely to be any significant impacts on the setting of this feature.

Grogarth Wood MCO28681 SW 91996 45702

Grogarth Wood to the north of Grogarth Wartha is recorded as ancient woodland of likely medieval date and of local importance.

Impacts on setting

Only the upper parts of the woodland would be intervisible with the proposed turbine. The impacts on the setting of the wood are judged to be negative/minor.

Penpell MCO16185 SW 01130 44876

The farmstead at Penpell was first recorded in the Domesday Book. The present farmhouse and buildings are of relatively recent construction and are of local importance.

Impacts on setting

Impacts on the setting of the farmstead are judged to be negative/minor.

Quarry at Tregony MCO46254 SW 92289 45160

A shallow, overgrown but apparently intact well to the west of Tregony is of local importance.

Impacts on setting

Impacts on the setting of the site would be negligible.

Tregony Well MCO46097 SW 92279 45091

A small well fed by a spring of local importance.

Impacts on setting

Impacts on the setting of the site would be negligible.

St. Cuby holy well MCO7072 SW 92738 45094

A well in a back garden at Tregony may represent the remains of the holy well of St. Cuby. The superstructure of the well has been removed and what remains is probably of only local importance.

Impacts on setting

Impacts on the setting of the site are likely to be negligible.

Back Lane, Tregony MCO46256 SW 92637 45051

This un-made lane linking Tregony to the Moor may be of medieval origins and is of local importance.

Impacts on setting

There will be intervisibility between this site and the proposed wind turbine, but given modern development flanking the lane, impacts on its setting are judged to be negative/minor to negligible.

Tregony Pound MCO26124 SW 92534 45231

One of the small fields in this vicinity may represent the remains of the Tregony medieval pound, but the identification is uncertain, and its significance is uncertain.

Impacts on setting

Impacts on the setting of the site are likely to be negligible.

7 Results of walkover survey

A walkover survey of the field proposed for the wind turbine was undertaken on 20 December 2011. The weather was cloudy but fair and the field was in a grass ley at the time. There were no barriers to survey.

The site was approached from the east along the lane leading from Grogarth Farm which has been proposed as the preferred route for the cabling from the turbine. This has been made up with slaty rubble to provide a robust surface, and now stands 0.5m above the field to the south.

The field boundaries consist of Cornish hedges incorporating rubble slate facings incorporating some quartz lumps. Vegetation on their sides and tops is low and there was no scrub or tree planting along the boundaries.

The field rises gently from the lane and has a rounded summit which forms the end of a ridge running past the reservoir site in the western corner of the field. The northern corner of the field falls towards the valley to the north.

No archaeological sites were found within the field. Several groups of molehills in the field were examined for stray finds, but none were found.

8 Further archaeological potential

In addition to known and probable sites recorded within the landscape surrounding the field proposed as the site for the turbine, unrecorded, buried archaeological remains may survive within the field proposed for this development.

Areas of 'Anciently Enclosed Land', of the 'Medieval farmland' HLC Type have been shown through interventions such as evaluation trenching, watching briefs and excavations elsewhere in Cornwall to have significant archaeological potential. Buried traces of both secular and ceremonial prehistoric sites may well survive in land of this Type. There is also the potential for 'stray' or even *in-situ* artefacts such as pottery and flint surviving in the soils.

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

10.1.1 Policy HE9.6

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

10.1.2 Extracts from Policies HE9.1 to HE9.4 and HE10

Policies HE9.1 to HE9.4 and HE10, referred to in Policy HE9, include the following;

- HE9.1 *'There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting.'*
- HE9.2 *'Where the application will lead to substantial harm to or total loss of significance local planning authorities should refuse consent unless it can be demonstrated that: (i) the substantial harm to or loss of significance is necessary in order to deliver substantial public benefits that outweigh that harm or loss...'*
- HE10.1; *'When considering applications for development that affect the setting of a heritage asset, local planning authorities should treat favourably applications that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset. When considering applications that do not do this, local planning authorities should weigh any such harm against the wider benefits of the application....'*

10.2 PPS5 English Heritage guidance

The English Heritage and DCMS (Department for Culture, Media and Sport) document 'PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide' provides guidance on PPS5 and its application.

This refers to the need, for decision-making in response to an application for change that affects the historic environment, of providing and assessing, at a level appropriate to the relative importance of the asset affected, information on the asset and its extent, on its setting, and on the significance of both of these aspects. Section 5, 54 states that *'Heritage assets may be affected by direct physical change or by change in their setting. Being able to properly assess the nature, extent and importance of the significance of a heritage asset and the contribution of its setting is very important....'*

Section 5 on Policies HE6 to HE 12, 58, notes among appropriate actions (in point 5) *'Seek[ing] advice on the best means of assessing the nature and extent of any archaeological interest e.g. geophysical survey, physical appraisal of visible structures and/or trial trenching for buried remains.'*

The section on Policy HE10 defines setting as follows;

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

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

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.

10.3.1 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.'

10.3.2 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 Former Carrick Local Plan

Although now part of Cornwall Council, Carrick District Council's policies listed in its local plan continue to be relevant. Those policies concerning the historic environment are listed below.

The Carrick Local Plan contained policies designed to protect the archaeological resource, using the following elements of policy framework, and are currently used to develop responses to planning applications. They include:

10.4.1 Policy 3A

'The District Planning Authority will enhance and protect the countryside by refusing planning permission for development which would have a significant adverse impact upon its biodiversity, its beauty, diversity of landscape, the character and setting of settlements, the wealth of its natural resources, its nature conservation and agricultural, historic and recreational value.'

10.4.2 Policy 4S

'Where nationally important archaeological remains, whether scheduled or not, are affected by proposed development, there will be a presumption against proposals which would involve significant alteration or cause damage, or which would have a significant impact on the setting of visible remains.'

10.4.3 Policy 4T

'Where proposed development is likely to significantly affect sites of local archaeological importance, they should be protected in situ, unless the significance of the remains is not sufficient, when weighed against the need for development, to justify their physical preservation. Where retention of remains is not possible, the District Planning Authority may impose conditions or seek planning obligations to ensure that adequate archaeological records are prepared before development commences.'

10.5 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 turbines have been identified as follows.

11.1.1 Types of impact, construction phase

Construction of the turbine could have direct, physical impacts on the above-ground or buried archaeology of the site through the construction of the turbine base and associated control plant, 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.

11.1.2 Types of impact, operational phase

A wind turbine might be expected to have a visual impact on the settings of some sites within its viewshed during the operational phase, given the prominence of its mast and rotating blades.

11.1.3 Scale and duration of impact

The impacts of a 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.

10.1.4 Potential and residual impacts

Potential adverse impacts may be capable of mitigation through archaeological recording or other interventions. In the assessments forming the following Section 11.2.1, where appropriate, both 'potential' and 'residual' impacts are given; that is, expected impacts 'before' and 'after' such work. A proposed mitigation strategy is outlined below in Section 12.

11.2 Assessment of impact

Overall, the impacts of the proposed turbine installation on the archaeological resource are assessed as having a potential scored as **negative/minor** without appropriate mitigating work. Potential impacts on sub-surface archaeology within the development site could be mitigated (see below).

The assessments supporting this general statement are outlined in the following sub-sections. To comply with current policies and guidance (Section 10) these provide assessments of impact in terms of different aspects of the archaeological resource - its individual sites, the settings of sites, HLC, and field boundaries. There are inevitably areas of overlap between these categories of impact; the assessment is adjusted accordingly to avoid 'double counting' of impacts.

11.2.1 Impact on archaeological sites within the development area

Ground disturbance associated with the installation of supports for the turbine mast, cables or ancillary works during the construction phase could result in permanent, irreversible loss of upstanding or below ground remains of any archaeological sites within the field. The works if deeper than current topsoil levels might affect buried cut features.

The scale of impact will vary with the significances of individual sites, though given the land take for the turbine and cabling, these are likely to be limited in extent, though some potential buried features could be disturbed, truncated or removed. In the absence of detailed information regarding the survival of sub-surface archaeology within the development area, this impact is considered to be **negative/unknown**, with a residual impact of **negative/minor** provided that appropriate mitigating work is carried out. These impacts would be **permanent** and **irreversible**.

Identifier	Site	NGR	Impact/recommendations
None	Buried archaeological sites, possibly including prehistoric barrows, settlement sites or associated earthworks.	Field centred SW 91488 45588	Damage to sub-surface archaeology through foundation and cable trenching. An archaeological watching brief during groundworks may be considered necessary.

11.2.2 Impact of the development on the setting of surrounding key heritage assets

The proposed wind turbine is considered likely to have an impact on the setting of key surrounding heritage assets, this being summarised as a **negative/minor** overall:

- In operation the wind farm would have some degree of adverse impact on the settings of three Scheduled Monuments (SMs) identified in the generated viewshed within 2.5km from the site (see Figs 15). Inter-visibility between these SMs and the wind turbine is, however, likely to be limited by topography, intervening trees and distance. The impacts would be **temporary** and **reversible**, being limited to the lifespan of the wind farm.

- During the operational phase the wind turbine could potentially impact to some degree on the settings of three Grade I and three Grade II* Listed Buildings (see Fig 15). The impacts would be **temporary** and **reversible**, being limited to the lifespan of the wind farm.
- During the operational phase the wind turbine could potentially impact to some limited degree on the setting of two Registered Parks and Gardens (see Fig 16). The impacts would be **temporary** and **reversible**, being limited to the lifespan of the wind farm.
- During the operational phase the wind turbine could potentially impact to some limited degree on the setting of thirty-three Grade II Listed Buildings (see Fig 15). The impacts would be **temporary** and **reversible**, being limited to the lifespan of the wind farm.
- During the operational phase the wind turbine could potentially impact to a very limited degree on the setting of the Conservation Area at Probus and to a slight to moderate degree on that at Tregony (see Fig 16). The impacts would be **temporary** and **reversible**, being limited to the lifespan of the wind farm.
- During its operational phase the wind farm could also impact to a small degree on nineteen undesignated heritage assets within the 1Km viewshed (see Fig 17). These impacts would be **temporary** and **reversible**, being limited to the lifespan of the wind farm.

Designated heritage assets within the 2.5Km radius viewshed

Scheduled Monuments (SM), Listed Buildings Grade I and Grade II* (LB), and Registered Parks and Gardens (RPG).

Identifier	Site	NGR	Impact
DCO928	Golden Camp (SM)	SW 92433 46876	Neutral
DCO1091	Parkengear Round (SM)	SW89929 47158	Neutral
DCO1080	St. Cuby's well (SM)	SW 92788 45096	Neutral
DCO5693	Cornelly Church (LB)	SW 91659 45159	Negative/minor
DCO5239	St Cuby church (LB)	SW 92763 45234	Negative/minor
DCO4047	Trewithen House (LB)	SW 91309 47513	Neutral
DCO3984	Tregony almshouses (LB)	SW 92348 44812	Negative/minor
DCO4080	Keep at Golden Manor (LB)	SW 92109 46846	Neutral
DCO5441	Barn at Golden Manor (LB)	SW 92102 46894	Neutral
DCO18	Trewithen Park (RPG)	SW 91413 47361	Negative/minor
DCO11	Trewarthenick Park (RPG)	SW 90501 45817	Negative/minor

Designated heritage assets within the 1.5Km radius viewshed

Listed Buildings Grade II (LB), Conservation Areas (CA)

Identifier	Site	NGR	Impact
DCO4968	Chest tomb at Cuby Church (LB)	SW 92772 45238	Neutral
DCO4029	Chest tomb at Cuby Church (LB)	SW 92774 45264	Neutral
DCO5717	37 Fore St, Tregony (LB)	SW 92734 45170	Neutral
DCO4940	Rose Cottage, Tregony (LB)	SW 92727 45160	Neutral
DCO3982	35 Fore St, Tregony	SW 92728 45151	Neutral
DCO3977	Tregony primary school (LB)	SW 92667 45100	Neutral
DCO3977	Tregony schoolhouse, walls	SW 92652 45081	Neutral
DCO4939	Penlee Cottage, Tregony (LB)	SW 92667 45057	Neutral
DCO5713	Tregony Methodist Church (LB)	SW 92603 44989	Neutral
DCO4937	Kings Arms, Tregony	SW 92562 44961	Neutral
DCO5694	Tregony Old Town Hall (LB)	SW 92545 44950	Neutral

DCO5716	18 Fore St, Tregony	SW 92586 44947	Neutral
DCO5226	16/17 Fore St, Tregony	SW 92582 44938	Neutral
DCO3980	Tregony House	SW 92577 44934	Neutral
DCO5225	14 Fore St, Tregony	SW 92565 44924	Neutral
DCO5715	13 Fore St, Tregony	SW 92550 44917	Neutral
DCO5821	K6 telephone box, Tregony	SW 92539 44917	Neutral
DCO5228	Tregony clock tower	SW 92525 44931	Neutral
DCO4938	Tregony Congregational Church and boundary wall (LB)	SW 92532 44876	Neutral
DCO3979	8 Fore St, Tregony	SW 92501 44879	Neutral
DCO3978	6/7 Fore Street, Tregony (LB)	SW 92495 44871	Neutral
DCO5714	5 Fore Street, Tregony (LB)	SW 92490 44867	Neutral
DCO4019	Myrtle House and Cottage (LB)	SW 92476 44889	Neutral
DCO4942	Castle Cottage (LB)	SW 93714 44802	Neutral
DCO3983	Beggar's Roost and adjacent raised pavement (LB)	SW 92346 44804	Neutral
DCO15018	Milestone near Cornelly Church (LB)	SW 92313 44804	Neutral
DCO5687	Wall at Golden Manor (LB)	SW 91725 45173	Neutral
DCO4552	Mounting block/wall at Golden Manor (LB)	SW 92016 46859	Neutral
DCO5686	Ice house, wall and ash house at Golden Manor (LB)	SW 92014 46862	Neutral
DCO4050	Gate and piers at Trewithen (LB)	SW 92033 46879	Neutral
DCO4051	Pavilion/implement shed at Trewithen	SW 92054 46874	Neutral
DCO5227	Trewarthenick (LB)	SW 91767 47752	Negative/minor
DCO40	Tregony (CA)	SW 91533 47679	Neutral
DCO58	Probus (CA)	SW 92691 44922	Negative/minor
		SW 89893 47647	Neutral

Undesignated heritage assets within the 1Km radius viewshed

Identifier	Site	NGR	Impact
MCO2749	Grogarth Barrow	SW 91255 45457	Negative/minor
MCO20991	Grogarth IA/RB field system	SW 91177 45301	Neutral
MCO21596	Grogarth Wallas IA enclosure	SW 91138 45211	Neutral
MCO20954	Golden Cot RB field system	SW 91396 45971	Neutral
MCO21579	Golden Cot RB enclosure	SW 91485 46038	Neutral
MCO21580	Golden Cot RB enclosure	SW 91708 45995	Neutral
MCO21581	Golden Cot RB enclosure	SW 91825 45991	Neutral
MCO55786	Freewater signpost	SW 91119 45659	Neutral
MCO53411	Freewater milestone	SW 91116 45654	Neutral
MCO55639	Field boundary near Freewater	SW 91084 45710	Neutral
MCO28655	Pound at Grogarth Wallas	SW 91626 45071	Neutral
MCO53414	Milestone at Grogarth Wallas	SW 91731 45168	Neutral
MCO28681	Grogarth Wood	SW 91996 45702	Negative/minor
MCO16185	Penpell	SW 01130 44876	Negative/minor
MCO55641	Field boundaries at Freewater	SW 90694 45546	Neutral
MCO46254	Quarry at Tregony	SW 92289 45160	Neutral
MCO26125	Site of Tregony Mill	SW 92281 45090	Neutral
MCO46097	Tregony Well	SW 92279 45091	Neutral
MCO7072	St. Cuby holy well	SW 92738 45094	Neutral
MCO46256	Black Lane, Tregony	SW 92637 45051	Negative/minor
MCO26124	Tregony Pound	SW 92534 45231	Neutral

11.2.3 Impacts on Historic Landscape Character

A wind turbine at Grogarth Farm can be predicted to degrade the historic character of the landscape to some degree. The expected effect on HLC is **negative/minor**. Factors contributing to this assessment are as follows;

- Land-take for the development would be very small in comparison with the very large area of the HLC Unit of Medieval Farmland of which it forms part.
- There would be no impacts in terms of physical loss during the construction phase of the upstanding boundaries which form the visible components of HLC.
- Some visual impact throughout the operational phase would occur, affecting the integrity of this area as historic open farmland and the introduction of additional and prominent modern features into this landscape.
- The impacts on the legibility of HLC would be **temporary** and **reversible** should the wind turbine be dismantled in the future.

11.2.4 Other archaeological impact

Any ground disturbing works here could encounter significant buried prehistoric or medieval remains, resulting in permanent, irreversible loss of these, or elements of them. This potential impact is assessed as **negative/unknown** as specific evidence for the nature and extent of any such remains is limited to that of aerial photography. It is likely that it could be mitigated satisfactorily through archaeological recording, reducing the residual impact to **neutral** or **negative/minor**. These impacts would be **permanent** and **irreversible**.

12 Mitigation Strategy

A range of means to mitigate the potential impacts identified in this assessment may be considered by the Historic Environment Planning Advice Officer, which is likely to include one or more of the following.

12.3 Site re-design

Based on the results of available information including an assessment of features plotted by the NMP, the HEPAO might ask the site developer to re-locate the turbine and any associated cable trenches to avoid direct impacts on sensitive areas of the field.

Should the finalised site design seem likely to result in unavoidable impacts on below-ground features, a Written Scheme of Investigation (WSI) should be prepared and agreed to establish and direct a programme of mitigating archaeological work. This should follow a brief set by Cornwall Council's Historic Environment Advice Team, which would set out the scope of any further work required.

12.4 Controlled soil stripping and archaeological watching brief

An archaeological watching brief (observation by an archaeologist during mechanical topsoil and subsoil stripping) might be required either where any significant areas of ground are to be disturbed (for instance the foundations for the turbine mast), or in areas where significant results might be considered likely from aerial photographs of surrounding areas, and which remain proposed for ground disturbance (by, for example cable trenching) in the final scheme design. This would provide for preservation by record of buried archaeological features or artefacts.

12.5 Analysis and presentation of findings

The results of any required mitigating archaeological recording outlined above would need to be compiled and analysed; significant findings would be presented as required, with publication to professional standards where appropriate.

12 References

12.1 Primary sources

- Gascoyne, J. 1699, *Map of Cornwall* (paper facsimile at HE)
- Geological Survey of Great Britain 2004, *1:50,000 scale mapping (digital transcription)*
- Gover, J E B, 1948. *Placenames of Cornwall*. Typescript held by the Courtney Library, RCM
- Margary, H. 1977, *The Old Series Ordnance Survey Maps, Vol II: Devon, Cornwall and West Somerset*, Lympne
- Martyn, T. 1748, *New and accurate map of the county of Cornwall from actual survey* (1 inch to the mile scale, paper copy at HE)
- Norden, J. circa 1580, *Speculi Britannia Pars: a topographical and historical description of Cornwall* (facsimile reproduction published as *John Norden's manuscript maps of Cornwall and its hundreds*, Exeter, 1972)
- Ordnance Survey c1809, *First Edition one inch to the mile mapping* (HE digitised copy)
- Ordnance Survey, c1880, *First Edition 25 inch to the mile mapping* (licensed digital copy at HE)
- Ordnance Survey, c1907, *Second Edition 25 inch to the mile mapping* (licensed digital copy at HE)
- Ordnance Survey, 2011. *Mastermap Digital Mapping*
- Tithe Map and Apportionment, c1840. *Parish of Cornelly* (digitised copy available through Cornwall Record Office)

12.2 Publications

- Cornwall County Council 1994. *Cornwall Landscape Assessment* Truro
- English Heritage 2010, *The setting of heritage assets: English Heritage guidance*, consultation draft
- Padel, O, 1985. *Cornish Place-Name Elements*, English Place-name Society: Nottingham
- Parkes, C. 2008, *Trewarthenick Park, Tregony, Cornwall: archaeological assessment*, Historic Environment Service, Cornwall Council report 2008R071
- Sharpe, A. 2011, *Croft West, Tregavethan, Truro, Cornwall: Archaeological Assessment*, Cornwall Council, Truro HE Projects report 2011R112
- Thorn, C. and F. (editors) 1979, *Domesday Book: 10, Cornwall*, Chichester

12.3 Websites

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

13 Project archive

The HE project number is **2011103**

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.E-H\Grogarth Farm Tregony wind turbine assessment 2011103
3. English Heritage/ADS OASIS online reference: cornwall2-116447

This report text is held in digital form as: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites G\Grogarth Farm Tregony wind turbine 2011103\Report\Grogarth Farm wind turbine assessment.doc

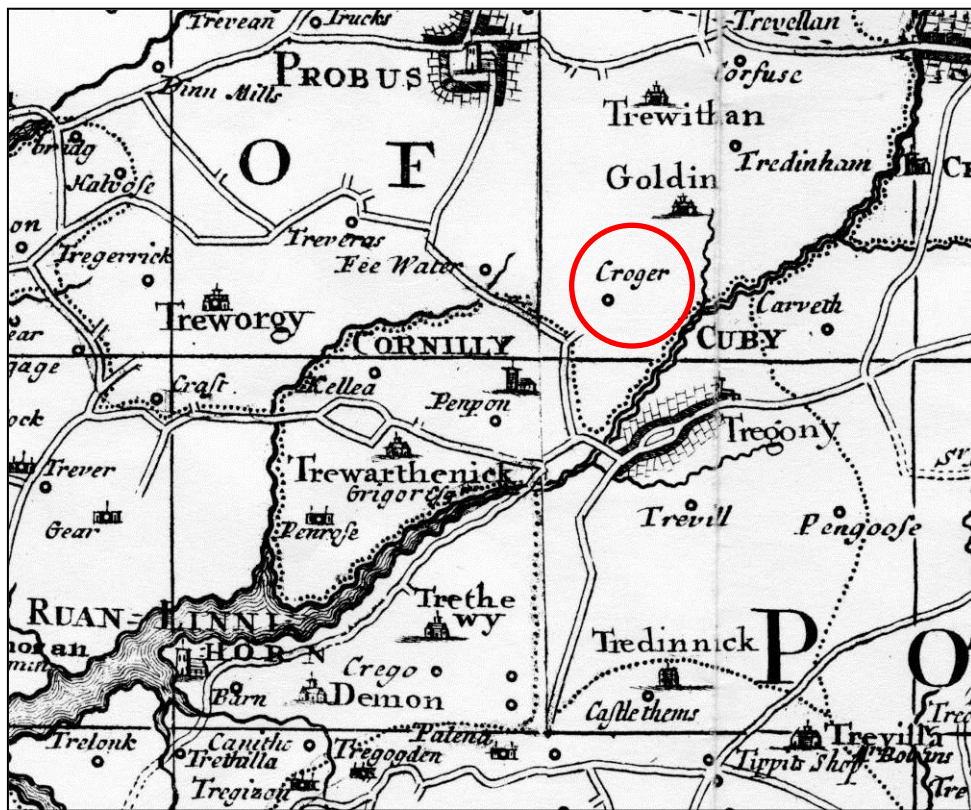


Fig 3. An extract from Joel Gascoyne's 1699 map of Cornwall, showing the landscape surrounding Tregony. The site at Grogarth Farm ('Croger') is circled in red.

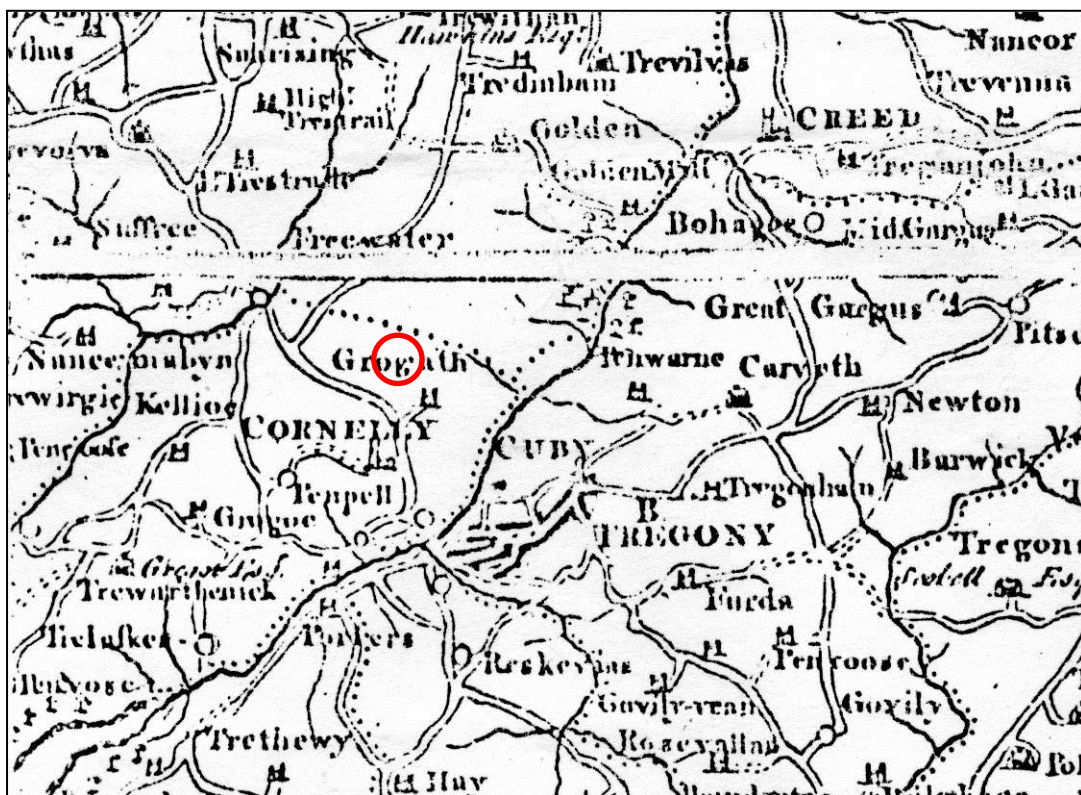


Fig 4. An extract from Martin's 1748 map of Cornwall, showing the landscape around Tregony at the time. The Grogarth Farm site is circled in red.



Fig 5. The area surrounding Grogarth Farm ('Grogath') on the circa 1809 OS First Edition 1" to the mile mapping, showing the former lane traversing the farm to its west. The red dot shows the location of the proposed turbine.



Fig 6. Grogarth Farm on the 1840 Cornelly Tithe Map. North is to the right. The turbine is proposed for field 37 to the west of the farm, which at the time was called 'Great Grogath'. The lane shown in 1809 was no longer depicted at this date.

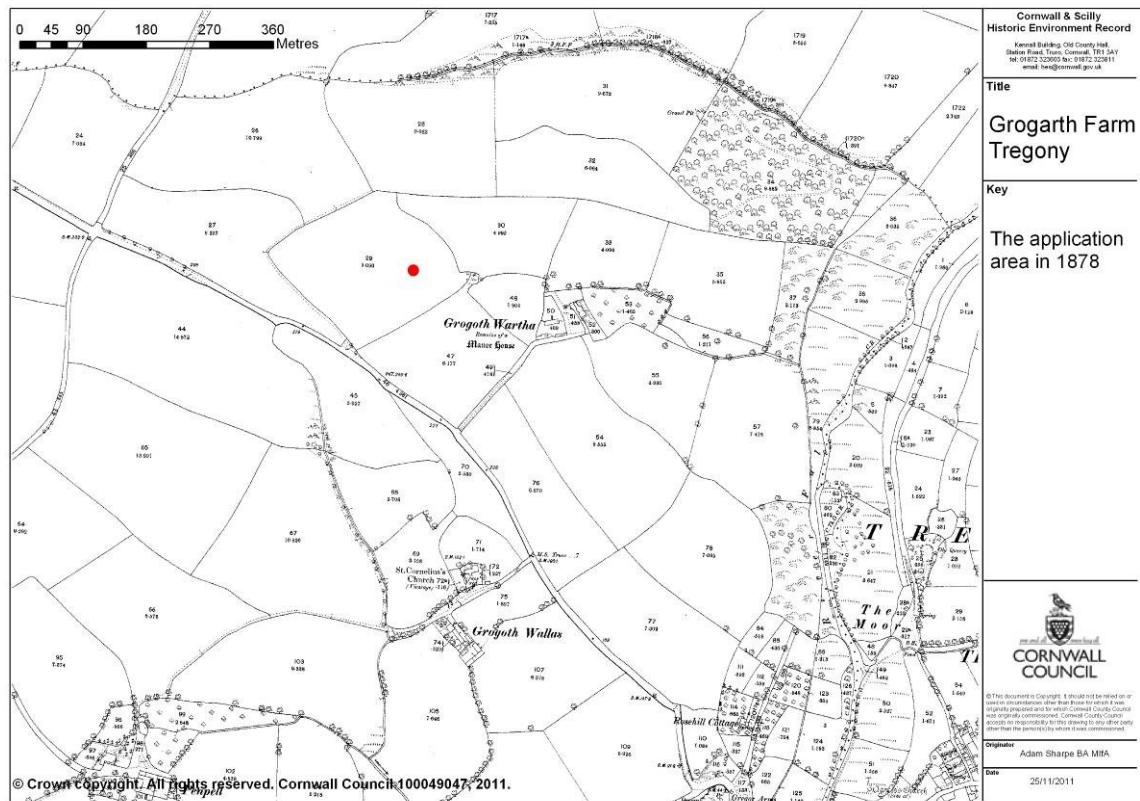


Fig 7. Grogarth Farm as shown on the First Edition 25" to the mile mapping with the turbine site shown by a red dot. The farm was referred to as 'Grogarth Wartha' (Upper Grogarth) at this date.

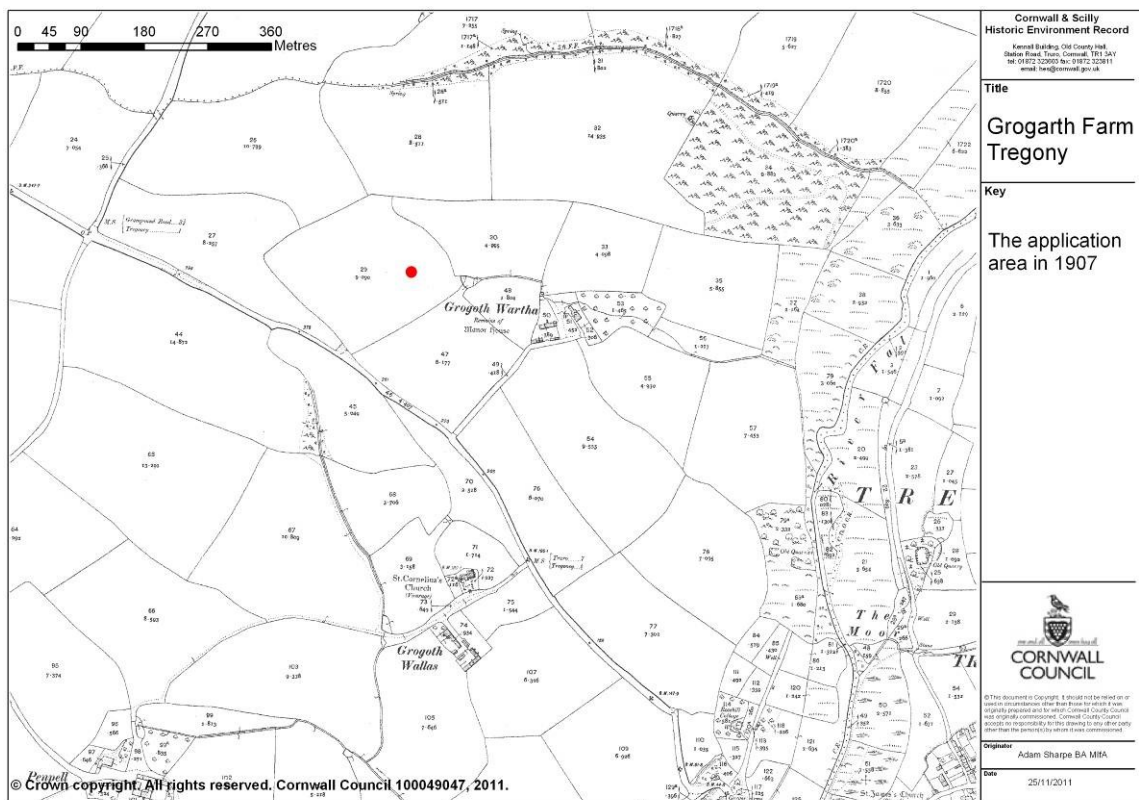


Fig 8. Grogarth Farm as shown on the circa 1908 2nd Edition of the OS 25" to the mile mapping.



Fig 9. Grogarth Farm as shown on the 2005 CCC aerial photographic mapping.

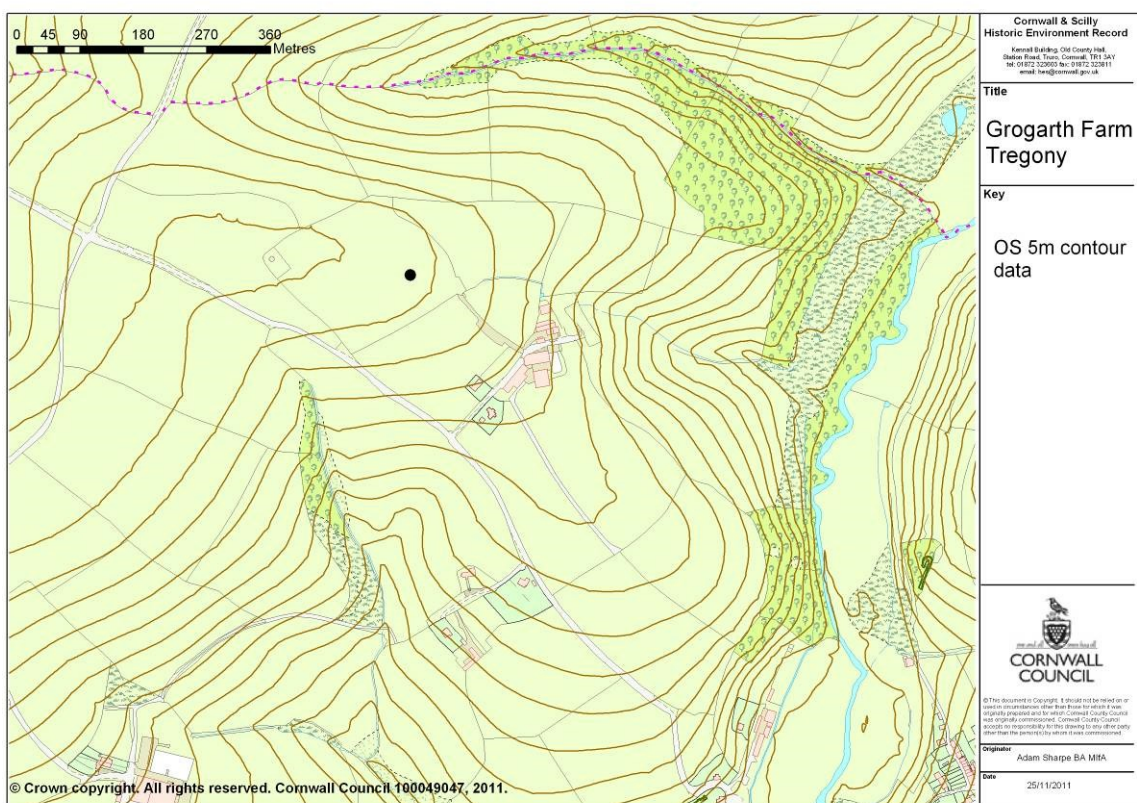


Fig 10. The topography of the Grogarth Farm site (OS 5m contour data) showing the location of the proposed turbine just off the top of the ridge with spurs dropping away to Cornelly to the south-east and the River Fal to the east.

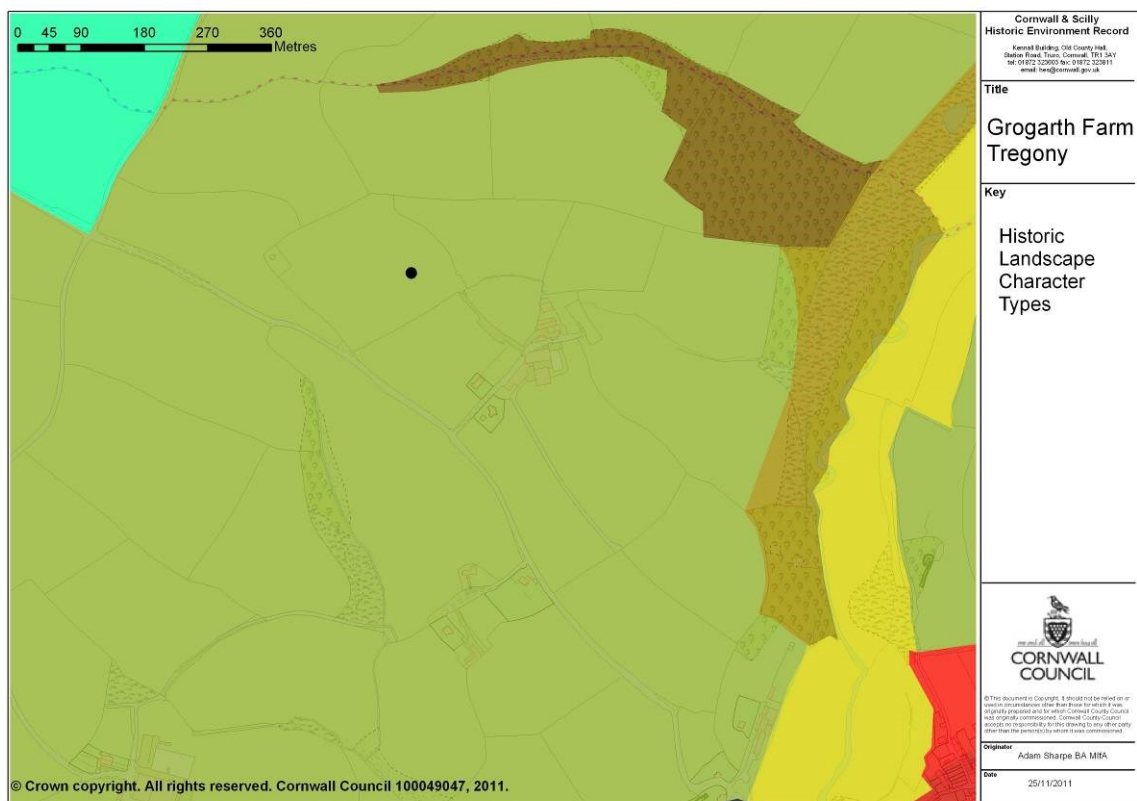


Fig 11. Historic Landscape Character mapping for Grogarth Farm, showing it lying within a large block of Anciently Enclosed Land (Medieval farmland) shown in green, adjoined to the north by ancient woodland (dark brown).

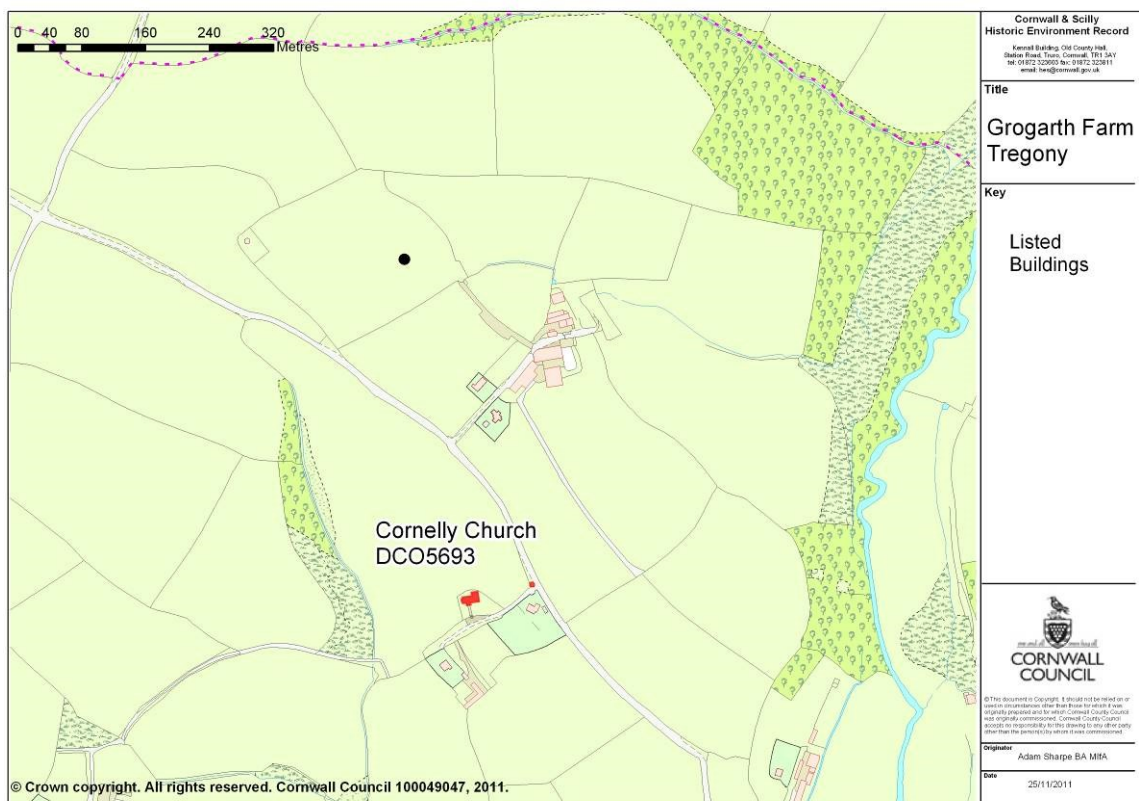


Fig 12. The topographical relationship between the proposed wind turbine and the Grade I Listed Cornelly Church to its south.

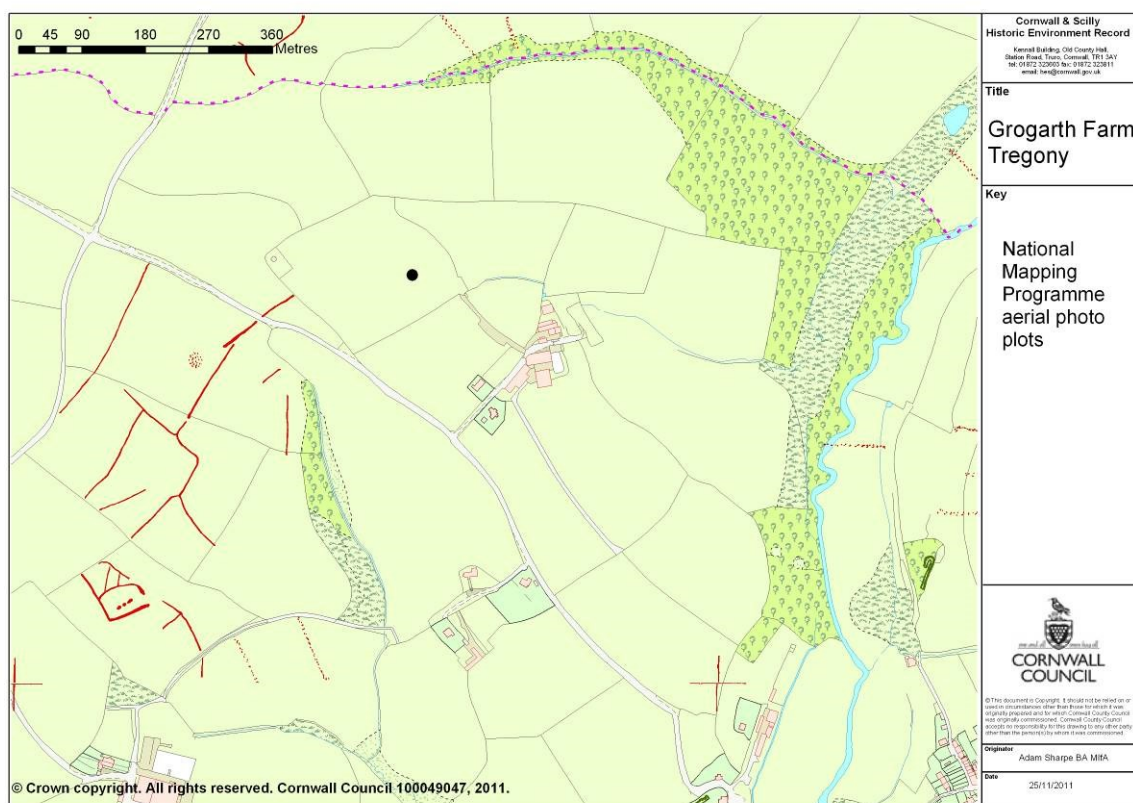


Fig 13. NMP aerial photo transcripts for the area surrounding Grogarth Farm, showing the prehistoric cropmark enclosure (to its southwest) and the associated pattern of field boundaries. It is probable that this field system continues to the north-east into the field within which the turbine is to be sited.

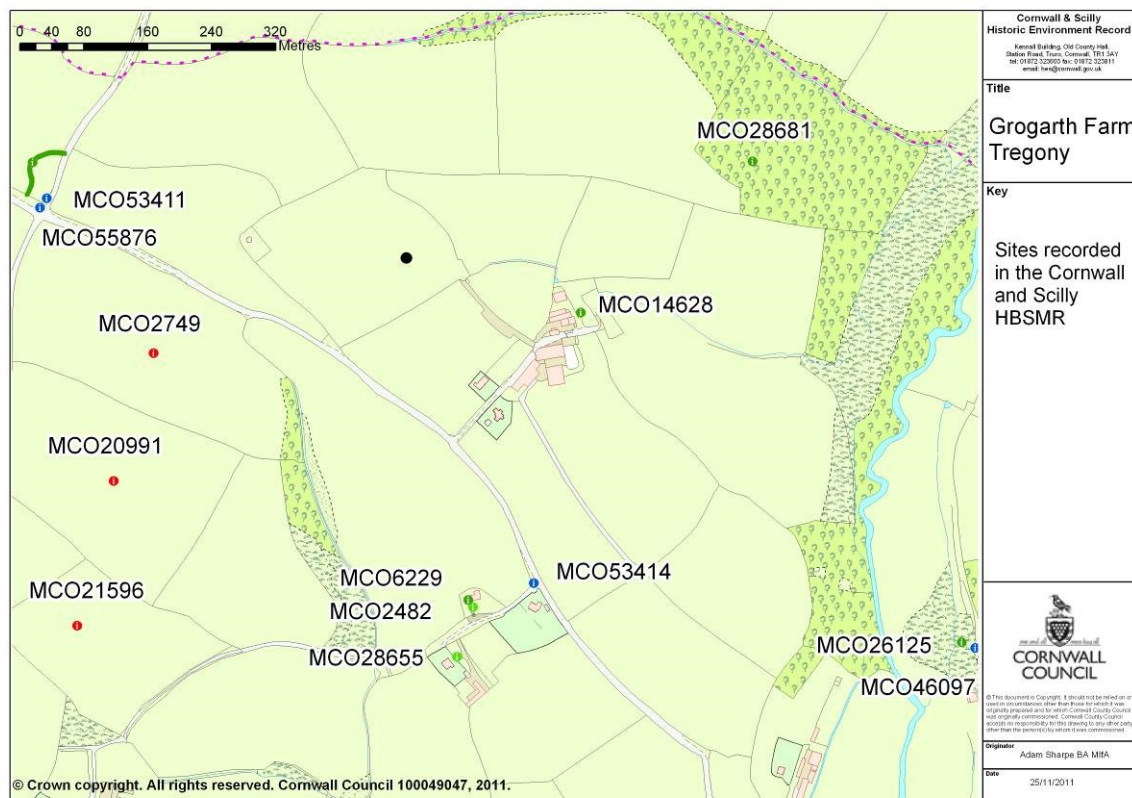


Fig 14. Sites recorded within the Cornwall and Scilly HER in the area immediately surrounding the proposed wind turbine site. Red dots = prehistoric sites, Green dots = medieval sites, Blue dots = post-medieval sites.

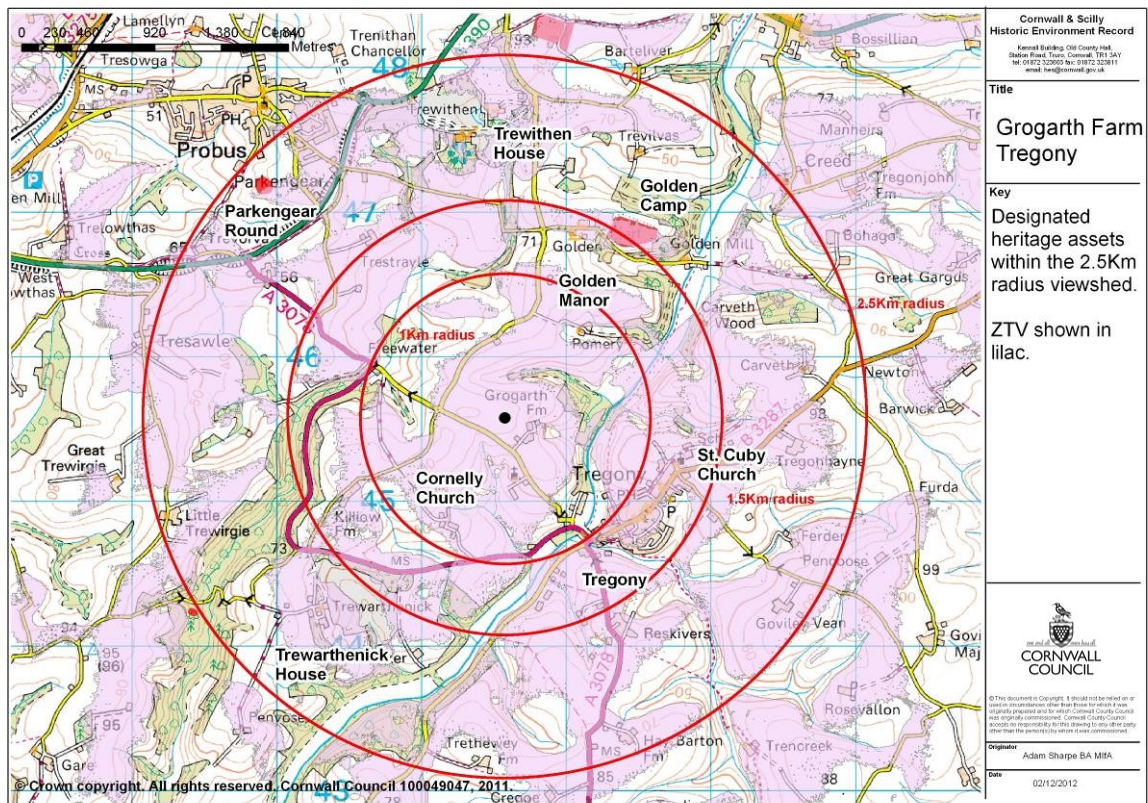


Fig 15. Individual designated heritage assets within the 2.5Km zone of the viewshed. Red circle – 2.5Km zone; purple – areas within the viewshed; Red – Scheduled Monument; Orange – Listed Building.

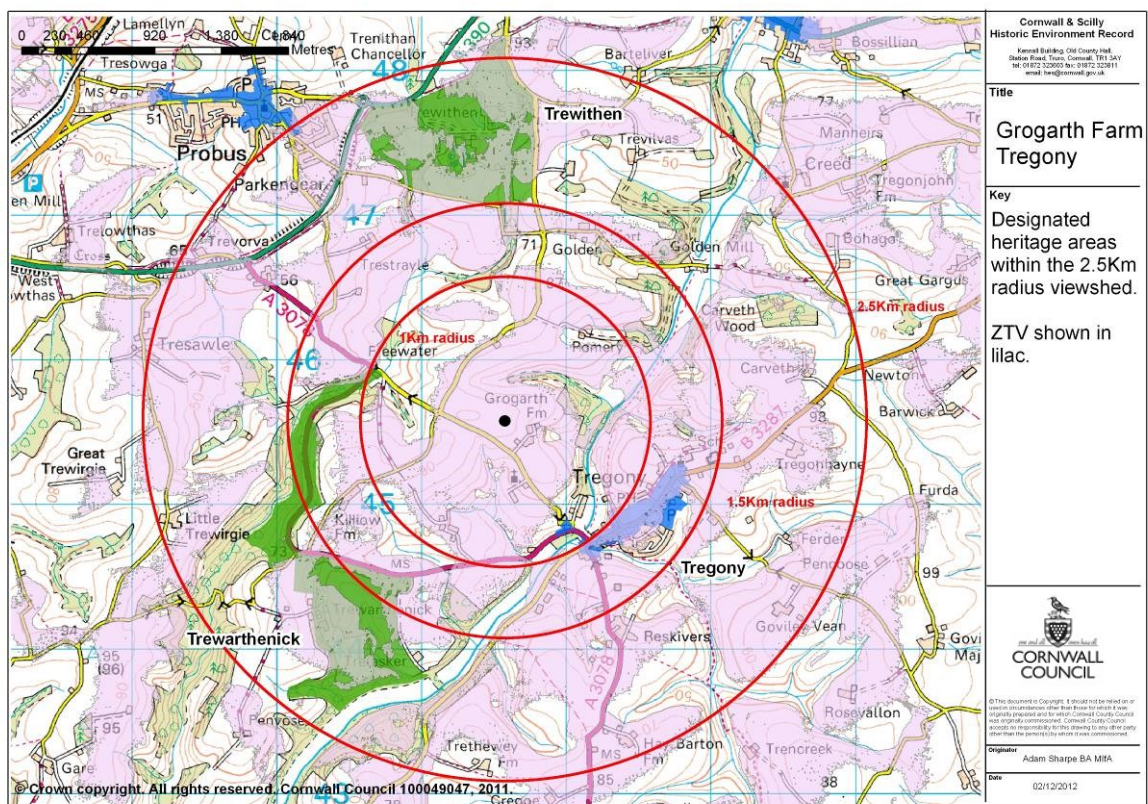


Fig 16. Designated heritage asset areas within the 2.5Km and 5Km zone of the viewshed; purple – areas within the viewshed; Green – Registered Park and Garden, Blue – Conservation Area.

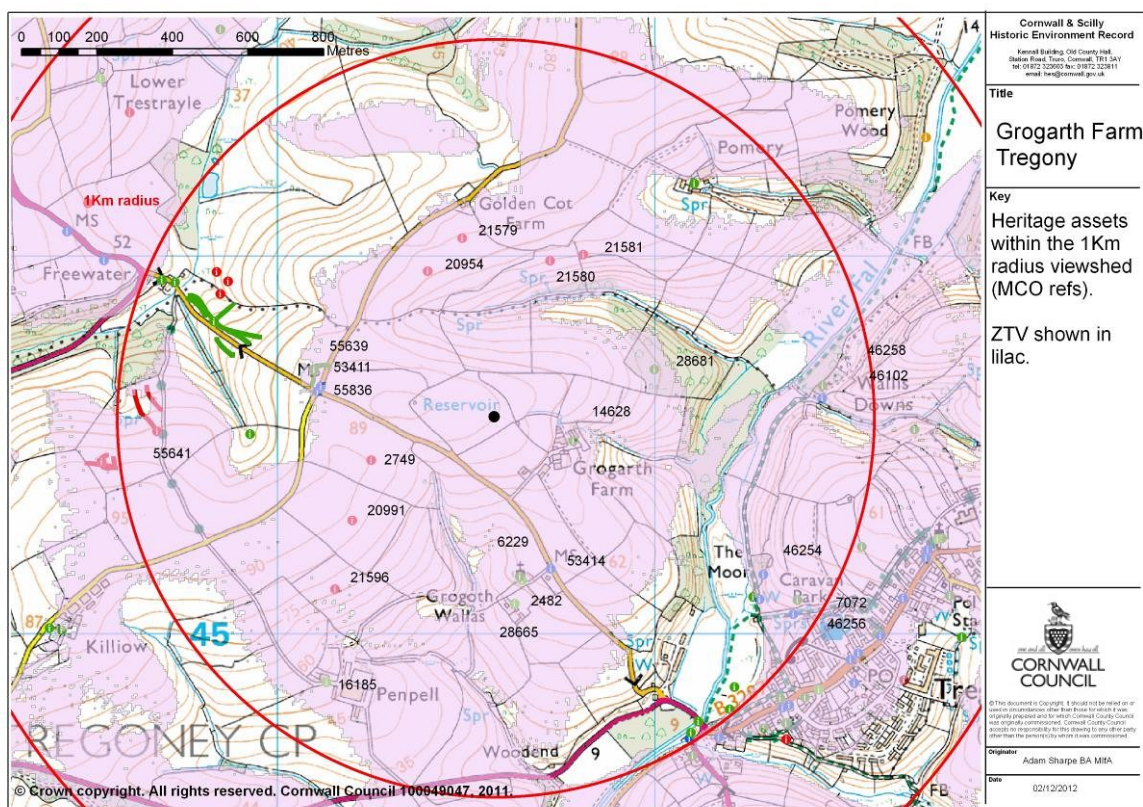


Fig 17. Individual heritage assets (MCOs) within the 1Km zone of the viewed. Purple – areas within the 1Km viewed.



Fig 18. Cornelly Church from the south. The proposed wind turbine would be on the skyline behind the church.



Fig 19. Looking north from near Cornelly Church towards Grogarth Farm (skyline, right). The wind turbine would be on the skyline behind the right hand end of the tree line.



Fig 20. Looking south from the proposed development site towards Cornelly Church set on the valley slop below.



Fig 21. Looking north-north-east from the proposed turbine site towards Golden Manor and Camp behind the wood in the mid distance.



Fig 22. Looking north-north-west from the site towards Parkengear and Probus on the skyline.



Fig 23. Looking south-east from near Parkengear, Probus, towards the proposed turbine site on the far skyline.



Fig 24. Looking north from the site towards Trewithen house and park.



Fig 25. Looking southwards from near Trewithen towards the proposed turbine site on the skyline.



Fig 26. Looking south-west from the site of the proposed turbine towards Trewarthenick house, park and garden.



Fig 27. Looking south-east from the proposed turbine site towards the settlement of Tregony in the mid distance on the eastern side of the Fal Valley.



Fig 28. Looking north-west along West End, Tregony towards the proposed turbine site to the left of Grogarth Farm on the skyline.



Fig 29. Looking north-west from the junction of Fore Street and Frog Street, Tregony. Grogarth Farm is visible on the skyline between buildings on the north-western side of the settlement at this point.



Fig 30. Looking north-west from the listed almshouses at the lower end of Fore Street, Tregony. The proposed wind turbine would appear on the skyline at the centre of this view, and would be plainly visible from this end of Tregony.



Fig 31. Looking west from the Grogarth farm lane towards the site proposed for the wind turbine on the skyline above the water trough.