



Otterham Down, Electricity Substation Camelford, Cornwall

Archaeological Watching Brief



Historic Environment Projects

Report No

2013R082

Report Name

Otterham Down Electricity Substation

Report Author

Ryan P. Smith

Event Type

Watching Brief

Client Organisation

Peter Wonnacott Planning

Client Contact

Walter Wonnacott

Monuments (MonUID)

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|--|--|--|--|--|--|

Fieldwork dates (From)

12/11/13

(To)

14/11/13

(Created By)

Ryan P Smith

(Create Date)

15/11/13

Location (postal address; or general location and parish)

Rose Park Farm, Otterham Station, Camelford,
Cornwall

(Town - for urban sites)

(Postcode)

PL32 9SW

(Easting) X co-ord

504054

(Northing) Y co-ord

43629



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Institute for Archaeologists

Cover illustration

View looking east prior to clearance of site

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Project background

Background

Historic Environment Projects (HE Projects), Cornwall Council was commissioned by Walter Wonnacott of Peter Wonnacott Planning to undertake a programme of archaeological recording during the initial ground works for the construction of an electrical substation on Otterham Down (SX 15847 90164) (Figs 1-4). The ground works would include an area of approximately 4200 square metres.

No previous archaeological work had been carried out on the site itself, but investigations carried out in the vicinity have highlighted the archaeological potential of the area. These include:

- Assessment carried out by Cornwall Archaeological Unit (now HE Projects) in advance of proposed Wind farm (Taylor 2002).
- Geophysical survey Otterham Down, Cornwall (Sabin & Donaldson 2011)
- Geophysical survey Otterham Wind Farm (Mercer 2002).

The development was the subject of a Planning condition (PA12/06669), requiring archaeological recording to take place during initial ground works.

A Written Scheme of Investigation (WSI) / brief, specifying the methodology for archaeological recording was produced (02/05/2013) by Archaeology and Planning Solutions Archaeology for Peter Wonnacott Planning (Archaeology and Planning Solutions 2013) (Appendix 1), and this was approved by Phil Copleston (Historic Environment Planning Advice officer, Cornwall Council). In response to the WSI / brief, Sean Taylor (Historic Environment Projects) produced a method statement (14/10/2013) for archaeological recording (Appendix 2).

Site description

The site is located at 239m OD in the middle of a 40 acre field, situated on a south east facing slope, north of Rose Bank Farm, Otterham Station, near Camelford, Cornwall.

Located on the southern edge of the site is an electricity pylon with power lines running across the southern half of the field adjacent to the development.

Underlying geology is described as part of the Boscastle Formation, comprised of sandstone, sedimentary bedrock (BGS 2013).

The area under supervision covered some 60m x 70m. The plans for the substation indicated that the area to the north of the complex footprint would be excavated, while the southern edge would be raised to produce a level platform.

The early historical mapping indicates that the site was already enclosed by the 1841 Tithe map of Otterham Parish (Fig 3), and the 1880 Ordnance Survey map (Fig 4) graphically depicts the field as an area of rough pasture and furze. The site lies within an area that has been characterised as Modern Enclosed Land (MEL). This is land which is mainly Anciently Enclosed Land or Post Medieval Land whose field systems have been substantially altered by large scale hedge removal in the 20th century. It also includes 20th century in takes from rough ground, woodland and marsh (Cornwall Council 1996). In the case of the development area, this is land which was marginal downland and probably enclosed in the earlier nineteenth century.

No excavations have been undertaken within the immediate area of the site, but an evaluation and geophysical surveys have been carried out within the last ten years within close proximity to the site.

Archaeological potential

The presence of two Scheduled Early Bronze Age burial mounds (c 2000-1500 cal BC) located north east of the site (240m & 320m respectively) (Archaeology & Planning Solutions 2013), and the existence of a ploughed out third barrow indicated the high potential for more prehistoric remains to exist within the immediate vicinity of the ridge

where the substation site was located (Fig 2). The southern facing aspect of the development site also had the potential to contain the buried remains of settlement activity within the landscape. The addition of a possible medieval or later extraction pit further north of the site and a suspected trackway identified from aerial photographs by the National Mapping Programme would lend themselves to this theory.

| Code | Description | Survival |
|-----------|------------------------|------------|
| MCO 3206 | Bronze Age barrow | Extant |
| MCO 3207 | Bronze Age barrow | Demolished |
| MCO 3208 | Bronze Age barrow | Extant |
| MCO 36609 | Bronze Age barrows x 2 | Crop-mark |
| MCO 36607 | Undated extraction pit | Crop-mark |
| MCO 36605 | Undated trackway | Crop-mark |

Table 1: Identified sites in the vicinity of the development area.

Aims and objectives

The archaeological monitoring objectives for the project were to record the extent, condition, nature, character, quality and date of any archaeological remains encountered, as dictated by current best practice.

In general the aims of the archaeological recording were to:

- Record the nature of the main stratigraphic units encountered in terms of their physical composition (stone, sand, gravel, organic materials, etc), their archaeological formation (primary deposits, secondary deposits, etc) and their overall relationship to each other.
- Assess the presence and survival of archaeological remains relating to the main periods of occupation revealed.
- Assess the presence and condition of any artefactual evidence (including pottery, brick, tile, stone, glass, metal, bone, small finds, industrial residues, etc).
- Assess the presence and condition of any ecofactual and environmental evidence (including animal bone, human bone, plant remains, pollen, charcoal, molluscs and soils, etc).

The specific aims of the archaeological monitoring were to:

- Record evidence for past settlement/funerary or any other land use.
- Recover artefactual evidence to date any evidence of past activity; and sample and analyse environmental remains to create a better understanding of past activity.

The project was managed by a Member of the Institute for Archaeologists and the following standards were adhered to during the archaeological monitoring:

- Institute for Archaeologists - Standard and guidance for an archaeological watching brief (revised October 2008).

Working methods

Desk-based assessment

A rapid desk-based survey assessment of historical databases and archives was carried out prior to the commencement of fieldwork, in order to inform the fieldwork stage. The main sources consulted were as follows:

- Cornwall HER
- Published sources
- Historic Maps including
 - Otterham Tithe Map (c1841)
 - 1st and 2nd Editions of the OS 25 inch maps (c1880 and c1907)
- Modern Maps
- Online Publications

Fieldwork

The archaeological fieldwork was undertaken as an 'archaeological watching brief', with the soil stripping being carried out under archaeological supervision.

Excavation of the site involved the marking out of a rectangular area measuring approximately 60m x 70m, then initially stripping the topsoil with an average depth of 0.3m from the surface using an 18 tonne swing shovel fitted with a 1.9m wide toothless bucket. The soil was stripped to a level at which archaeological features or layers were revealed or the top of natural subsoil was exposed (i.e., the top of the first archaeologically significant horizon or the natural, whichever was highest). The secondary material was then stripped from the northern area of the site to reduce its profile in accordance with the construction plans.

Results *(Figures 5-9)*

On Tuesday 12th November the contractor began removal of topsoil within the designated area using a swing shovel fitted with a grading bucket.

The site defined by a large electricity pylon on the southern edge, was a rectangular area contained within a 40 acre field measuring approximately 4200 square metres (60m x 70m), the depth of excavation for the removal of topsoil did not exceed 0.3m, the maximum depth of the topsoil (101) (Fig 6). The removal of topsoil continued until midday Wednesday 13th November.

On completion of the topsoil removal, a trackway was then excavated across the site starting at a gateway on the west side of the field (SX 15757 90139) and followed the line of the overhead power cables joined the primary area of the excavation (SX 15967 90224). The track was approximately 4 metres wide and again this did not exceed the 0.3m depth of the topsoil (101).

On Thursday 14th November the excavator began the removal of the second layer of material (102) described by the geotechnical report as *Stiff light brown mottled grey silty CLAY with much fine to coarse angular gravel and cobbles of blocky sandstone. Occasional interbeds of coarse, tabular gravel of siltstone and mudstone* (g2Energy 2013).

This secondary layer of material (102) was only removed from the northern half of the site to its full depth of 0.8m, below this level the bedrock (103) was encountered. The

bedrock (103) described in the geotech report as *dark grey weak becoming moderately weak highly weathered becoming moderately weathered thinly laminated horizontally bedded slaty MUDSTONE with occasional siltstone interbed. Occasional Quartz cobble* (g2Energy 2013). The plans for the site indicated that the bedrock would be removed to a depth of at least four metres but this is not within the archaeological brief.

A utility trench containing a black plastic pipe was recorded (Fig 7) in the secondary layer (102) running from a water trough located in the middle of the field on a north south orientation across the area being stripped.

Observation of the geology of the site in section revealed only three contexts, complying with the geotechnical reports description of the materials, there was no deviation within the area of the site only the context levels changed and these were minor. The topsoil (101) described as light brown clay silty topsoil was consistent throughout the area. The second material (102) as previously described did not exceed a depth of 0.8m, there did, however, appear to be a couple of fissures within this material, which held significantly more fine to coarse angular gravels than stone, closer inspection revealed these to be natural geology.

No features of archaeological significance were disturbed during the excavation of the site, no artefacts were retrieved. The development did not, therefore, have any discernible impact on the archaeology of the area.

References

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g2Energy, 2013, *132Kv Substation Geotechnical report 5476* (g2Energy)

<http://planning.cornwall.gov.uk:8181/rpp/index.asp?caseref=PA13/05260>

Accessed 27/11/2013

Project archive

The HE project number is 146324

The project's documentary, photographic and drawn archive is housed at the offices of Historic Environment, Cornwall Council, Fal Building, New County Hall, Truro, Cornwall, 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.M-P\Sites O\Otterham Station WB2013-146324
3. English Heritage/ADS OASIS online reference: cornwall2-165330
4. This report text is held in digital form as: G:\TWE\Waste & Env\Strat Waste & Land\Historic Environment\Projects\Sites\Sites O\Otterham Station WB 2013-146324

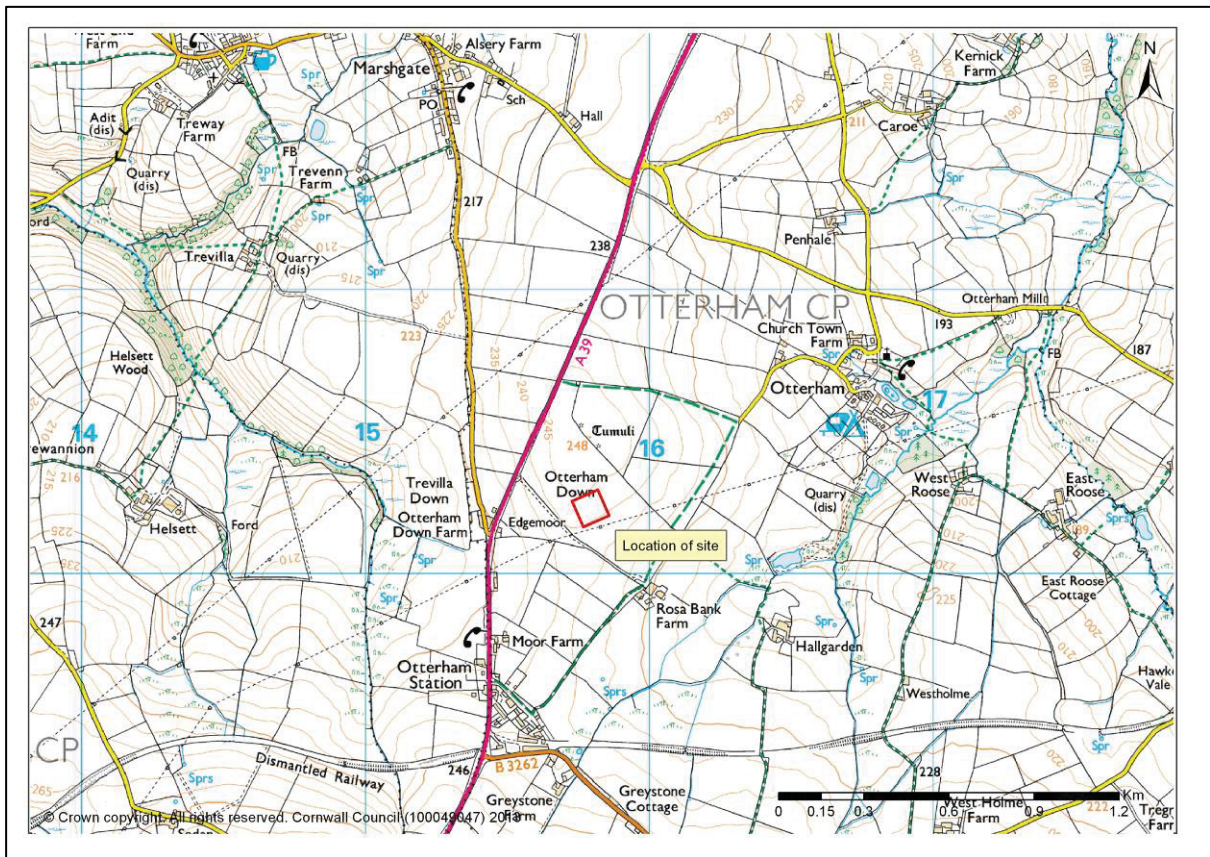


Figure 1: Location of site (As denoted by red box).

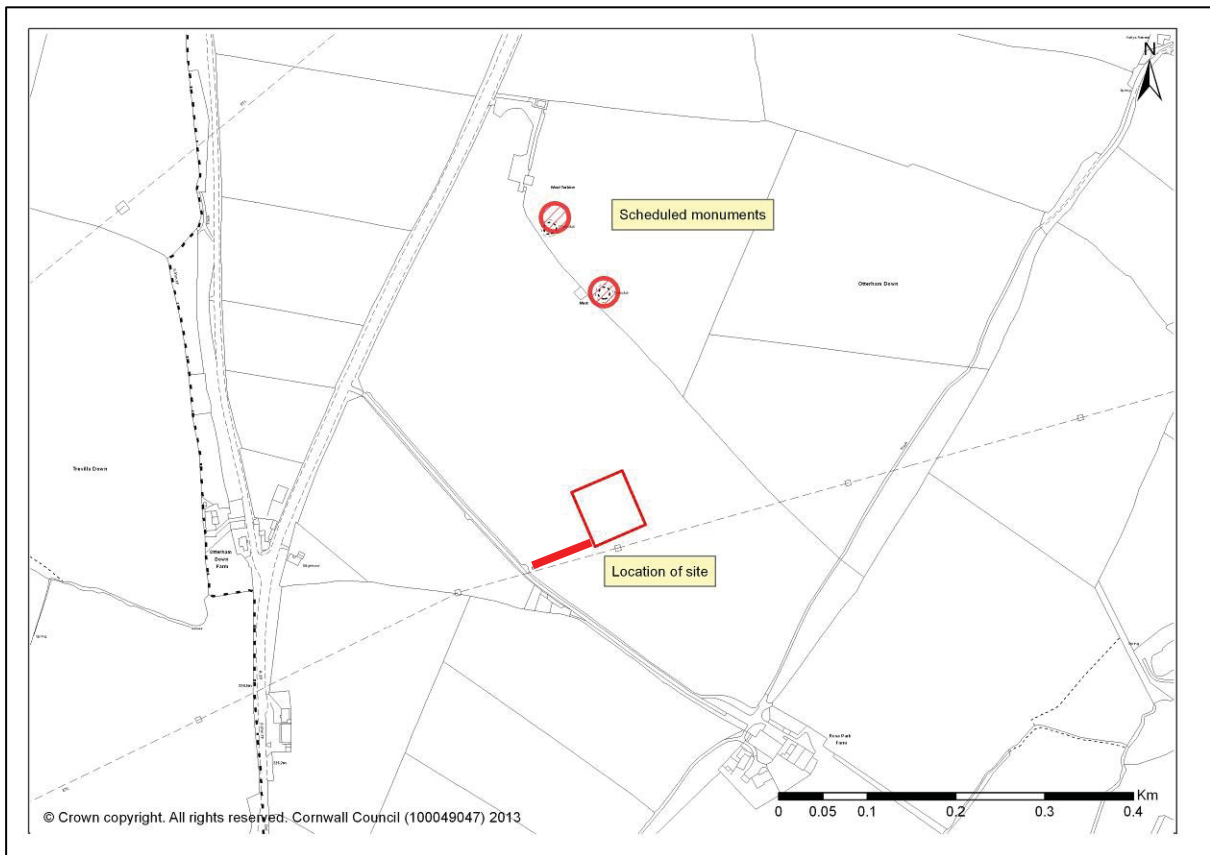


Figure 2: Close up of site showing local archaeology in comparison to site location.

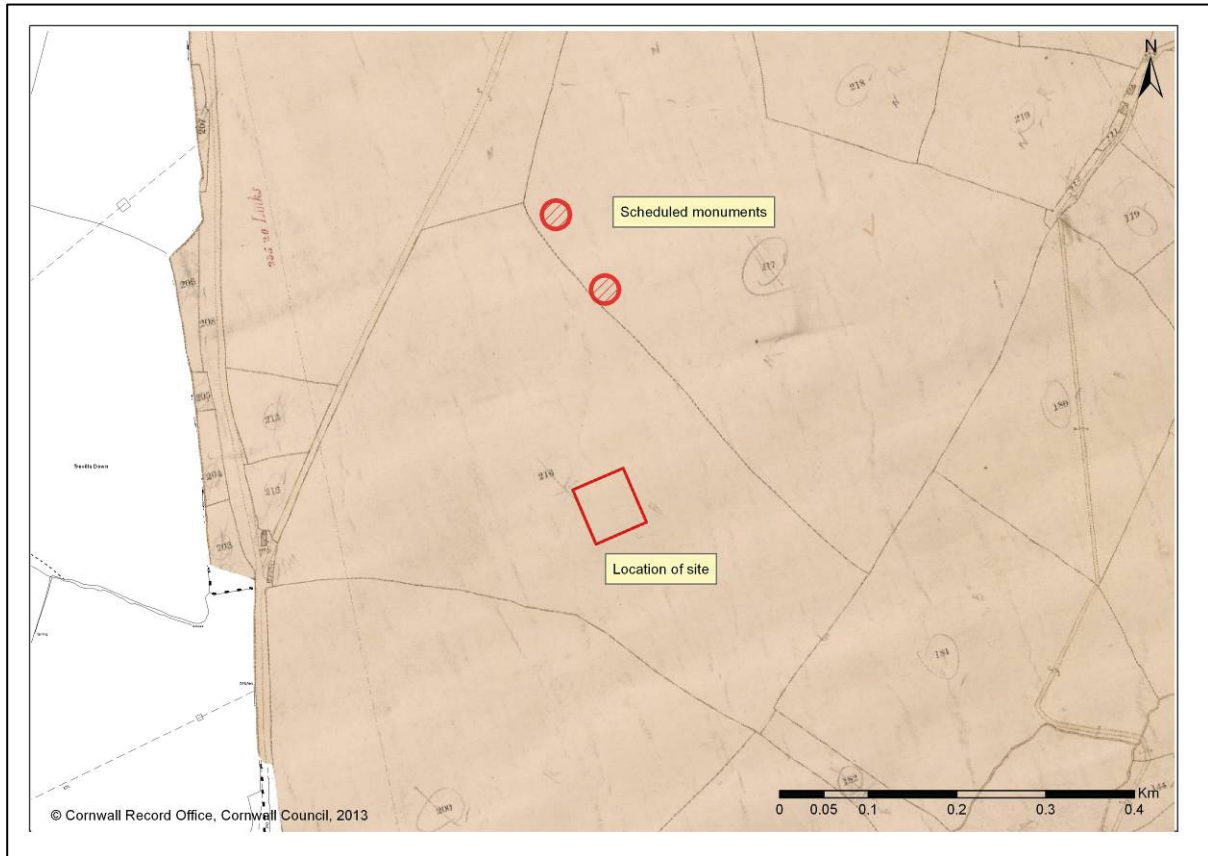


Figure 3: Tithe map of Otterham Parish showing location of substation site (area denoted by red box).

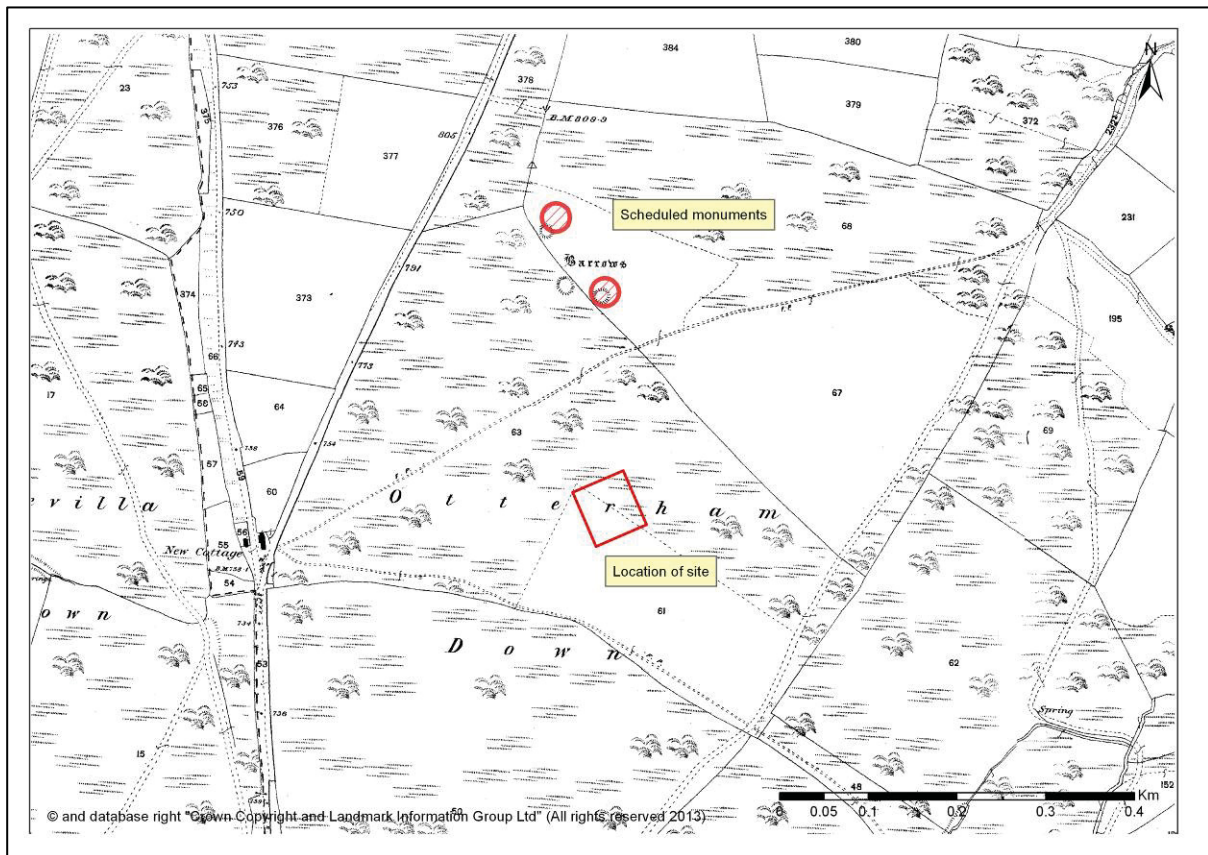


Figure 4: 1880 Ordnance Survey map showing approximate location of site.



Figure 5: Photograph of site prior to site works (looking east).



Figure 6: Site after removal of topsoil (101) (looking south west).



Figure 8: View of water pipe within subsoil (102) (looking north).



Figure 7: Removal of secondary material (102) (looking north).



Figure 9: Site after removal of secondary (102) material at northern side (view from NE corner looking NW across site).

APPENDIX 1: Written Scheme of Investigation for Rose Park Farm, Otterham Station, Camelford, Cornwall



**Rose Park Farm
Otterham Station
Camelford
Cornwall**

**Written Scheme of
Investigation for
Archaeological
Mitigation**

Prepared for:
Peter Wonnacott
Planning

2nd May 2013

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1 Introduction

- 1.1 This Written Scheme of Investigation (WSI) for archaeological mitigation has been prepared by Archaeology & Planning Solutions (APS), acting on behalf of Peter Wonnacott Planning (hereafter referred to as "the Client").
- 1.2 It follows a request by the Historic Environment Service of Cornwall Council, hereafter referred to as the 'council's advisor', for archaeological mitigation works to be completed in respect of the construction of an electricity sub-station on land at Rose Park Farm, Otterham Station, Camelford in Cornwall (see Figures). These archaeological works are required as a condition of planning permission (application no. PA12/06669).
- 1.3 No pre-determination archaeological works have been carried out. However, two scheduled bowl barrows are located approximately 240m and 320m to the north of the proposed sub-station. It is therefore possible that groundworks for the development could reveal related archaeological deposits.
- 1.4 Accordingly, following the grant of planning permission, condition 2 was attached requiring archaeological mitigation. This condition states that:

"No development shall take place within the area to be developed until the applicant has secured the implementation of a programme of archaeological recording based on a written scheme of investigation submitted to and approved by the Local Planning Authority."
- 1.5 Following the grant of planning permission on 15th February 2013 it has been proposed to move the location of the sub-station some 15m to the north-east. Discussion with the council's advisor has established that the conditioned archaeological work will take the form of archaeological monitoring during the early phase of groundworks required for the development and that the relocation of the development to its alternative location does not change this requirement. The groundworks will require terracing into an existing east-facing slope in order to create the footprint of the sub-station along with ancillary works.
- 1.6 This WSI therefore presents a detailed methodology for the archaeological mitigation work to address condition 5 of the planning permission. Nevertheless, it will be augmented with a Method Statement, which is to be supplied to the council's advisor by the appointed fieldwork contractor prior to commencement on site. This Method Statement will identify the appointed contractor, the project manager for the fieldwork and post-excavation analysis/reporting, key site staff and postexcavation specialists and also details of the relevant systems and processes that will be implemented to deliver the aims and objectives of the WSI once it has been approved by Cornwall Council.

2 Site Location and Description

- 2.1 The site to which this WSI refers lies within a field on an east-facing slope north of Rose Bank Farm at around 243m above Ordnance Datum (aOD) centred on National Grid Reference SX 1584 89018 (see Figures). A pylon is located within the site.
- 2.2 The underlying geology comprises the Boscastle Formation <http://maps.bgs.ac.uk>).

3 Archaeological Background

- 3.1 No archaeological assessment (desk-based or field evaluation) has been carried out. However, two scheduled bowl barrows are located approximately 240m and 320m to the north of the proposed sub-station. It is therefore possible that groundworks for the development could reveal related archaeological deposits. However, the construction of the existing pylon for an overhead line is likely to have damaged or destroyed any archaeology within its footprint.

4 Aims of Archaeological Monitoring

- 4.1 The archaeological monitoring aims to record the extent, condition, nature, character, quality and date of any archaeological remains encountered, as dictated by current best practice.

- 4.2 In general the aims of the monitoring are to:

- record the nature of the main stratigraphic units encountered in terms of their physical composition (stone, sand, gravel, organic materials etc), their archaeological formation (primary deposits, secondary deposits etc) and their overall relationship to each other;
- assess the presence and survival of archaeological remains relating to the main periods of occupation revealed;
- assess the presence and condition of any artefactual evidence (including pottery, brick, tile, stone, glass, metal, bone, small finds, industrial residues etc); and
- assess the presence and condition of any ecofactual and environmental evidence (including animal bone, human bone, plant remains, pollen, charcoal, molluscs, soils etc).

- 4.3 The specific aims of the archaeological monitoring are to:

- record any evidence of past settlement/funerary or any other land use;
- recover artefactual evidence to date any evidence of past activity that may be identified; and
- sample and analyse environmental remains to create a better understanding of past activity.

- 4.4 The project should be managed by a Member of the Institute for Archaeologists and the following document will be adhered to during the archaeological monitoring:

Institute for Archaeologists - Standard and guidance for an archaeological watching brief (revised October 2008).

5 Fieldwork Methodology

- 5.1 The archaeological investigation will comprise the close archaeological monitoring of the topsoil/subsoil removal required for the sub-station and any other significant groundworks. This will include the mapping, investigation, sampling and recording of all significant archaeological deposits.

- 5.2 Should significant archaeology be encountered and, if appropriate, a site meeting will be convened between the council's advisor, the client and the archaeological contractor. The aim of this meeting will be to review the results and then determine an appropriate sampling strategy for the exposed archaeological remains.
- 5.3 Although the precise sampling methodology will be determined on site, it is provisionally proposed that the following approach will be used. Deposits will be excavated by hand, using appropriate tools. All archaeological features should be subject to appropriate levels of excavation. In summary, this equates to:
- any deposits relating to funerary/ritual activity (e.g. burials, cremations,) and domestic/industrial activity (e.g. walls, post-holes, hearths, floor surfaces/floor make-up deposits) will be investigated by removing a 100% sample of the deposit from each feature; and
 - features relating to agricultural and other activities will be subject to the following sampling levels. Pits will require a minimum of a 50% sample of the deposits from each feature; linear features (e.g. ditches/gullies, paths/tracks) will require a minimum of a 20% sample of the deposits from each feature.
- 5.4 However, it is recognised that there may be cases when individual features do not merit these levels of sampling. Nonetheless, any variation to these levels would need to be approved by the council's advisor.
- 5.5 All machine work must be completed under archaeological supervision. Care should be taken to ensure plant and machines do not damage underlying remains, particularly in soft conditions.
- 5.6 Any human remains that are encountered will initially be left in situ and reported to the appropriate authorities. Subsequent removal will comply with the relevant Home Office regulations and current archaeological best-practice.
- 5.7 All finds of gold and silver or hoards of prehistoric metals will be moved off site to a safe place and reported to the Coroner's Office according to the procedures set out in the Treasure Act 1996. Where removal cannot be completed on the same working day as the discovery, suitable security measures will be taken to protect the artefacts from theft or damage.
- 5.8 Suitable contexts will be subjected to environmental sampling at an appropriate scale. This work will meet the minimum standards recommended by the council's advisor.
- 5.9 All artefactual and ecofactual remains, whether stratified or not (including material from spoil tips), will be collected, bagged and labelled. Artefacts will be subject to preliminary study on site in order to help date excavated features.

6 Recording Systems

- 6.1 The recording system must be compatible with the most widely used in the county. Pro-forma context sheets should include all relevant stratigraphic relationships and, for complex stratigraphy, a separate matrix diagram should be employed. The following plans and sections are required:
- an overall site plan of the excavated area will be prepared detailing archaeological deposits, as well as the extent of the area relative to the National Grid on a 1:2500 plan. An overall excavation plan will be prepared at a 1:100 scale;

- sections containing significant deposits, including half sections, should be drawn as appropriate. Section drawings should include heights aOD;
- all archaeological plans and sections should be on drawing film and at a scale of 1:10 or 1:20 and should include context numbers and aOD spot heights for all principal strata and features; and
- an adequate photographic record of any significant archaeological remains is required, in both plan and section.

7 Finds and Samples

- 7.1 A high priority should be given to dating any remains and so all artefacts and finds are to be retained. Consideration should also be given to the recovery of specialist samples for scientific analysis, particularly samples for absolute dating, structural materials and cultural/environmental evidence. Environmental samples should be taken from suitable deposits and examined for carbonised remains, macroscopic plant remains, pollen, seeds, insects, molluscs etc.
- 7.2 All finds and samples are to be treated in a proper manner to prevent deterioration. This will involve cleaning and conservation, where necessary, and labelling, cataloguing and secure storage in appropriate containers.
- 7.3 The appointed archaeological contractor will submit as part of the Method Statement a strategy for palaeo-environmental sampling on the site and for processing and analysis of samples. This work should accord with the minimum standard guidance provided by the council's advisor. The contractor is expected to seek the advice of a palaeo-environmental specialist in this connection.
- 7.4 The appointed archaeological contractor will need to demonstrate that arrangements are in hand to cover all necessary processing, conservation and specialist analysis of finds and samples.
- 7.5 Every effort should be made to ensure that finds analysis is consistent with existing local systems.

8 Monitoring

- 8.1 The council's advisor will be notified of the start of the works giving at least two week's notice in writing. If appropriate a review meeting will be held on site to consider the results and to progress the required works to a satisfactory standard.

9 Health and Safety

- 9.1 All relevant health and safety legislation and regulations must be followed, especially bearing in mind the presence of an overhead line. All the health and safety requirements of the main groundworks contractor must also be adhered to. High visibility jackets, safety helmets and protective footwear are to be used by all personnel. Other items such as dust masks, goggles and gloves will need to be worn as appropriate. The archaeological contractor is required to provide a full risk assessment and their Health and Safety manual for the approval of the client prior to fieldwork commencing. The archaeological organisation must be satisfied they are in receipt of all information reasonably obtainable on contamination and the location of live services before any site work takes place.

10 Post-Excavation

- 10.1 The archive will be prepared immediately after site works are completed. This will be prepared in accordance with a specification agreed in advance with the council's advisor.

- 10.2 Each category of finds will be assessed by specialist staff and all artefacts and ecofacts will be processed in accordance with standard practice.
- 10.3 One draft copy of the report will be made available to the client as soon as it is ready. Once approved copies of the finished report will be submitted to the client before submission to Cornwall Council and their archaeological advisor, along with digital data on CD-ROM.
- 10.4 Arrangements will be made for deposition of the finds (with the written permission of the landowner) and the site archive with the relevant museum within twelve months of the completion of fieldwork. Written confirmation of this will be provided to the council's advisor.
- 10.5 Provision will be made for an appropriate level of academic publication of the results of the excavations. If appropriate a summary report will be submitted for publication in the relevant local journal. Additional publication requirements will be agreed with the council's advisor.
- 10.6 If appropriate the report should include:
- a review of the aims and methods used in the excavation;
 - a table summarising the descriptive text showing the features, classes and numbers of artefacts and their interpretation, with reference to the county artefacts type series;
 - artefact analysis to include the production of a descriptive catalogue, with finds critical for dating and interpretation illustrated;
 - the report should be illustrated with appropriate material including site and excavation area plans, sections (1:10), plans of any archaeological features (1:20) and general and detailed photographs;
 - the nature, extent, date, condition and significance of the archaeological and environmental material uncovered with specialist opinions and parallels from other sites in the area;
 - an interpretation of the results should be produced and attention should be given to the significance of the remains in local, regional and national terms; and
 - a reconsideration of the methodology used, including a confidence rating of the strategy and the results.
- 10.7 Copies of all reports arising from fieldwork will be deposited with the Cornwall Historic Environment Record (HER).

11 Archiving

- 11.1 The site archive, which will comprise records of the archaeological excavations and any materials recovered, including written elements, plans and drawings, digital photographs, photographic prints and transparencies (where appropriate) and other primary data recovered during the investigation, must be quantified, ordered, indexed and made internally consistent. It should also contain as a minimum requirement a site matrix, site summary (a short report giving a preliminary account of the discoveries) and brief written observations on the artefactual and environmental data.

- 11.2 All artefacts and ecofacts recovered during the archaeological monitoring will be made available to the contractor pending completion of the report, to be stored during the course of the archaeological investigation at the contractor's secure offices or usual place of secure storage of archaeological finds.
- 11.3 All artefacts recovered during the archaeological investigation are to be suitably washed (where the condition of the artefacts allows) and marked by the contractor and all artefacts and ecofacts bagged and boxed by the contractor, in accordance with current United Kingdom Institute for Conservation/RESCUE publication First Aid for Finds (3rd. ed. 1998). All 'small finds' will be boxed together, separate from bulk finds.
- 11.4 In preparing cost estimates for the archaeological monitoring, the contractor should include provision for at least a basic minimum level of conservation of finds liable to deterioration after excavation.
- 11.5 Within 12 months of completion of the written and drawn site archive, a microfiched security copy of these elements of the archive will be deposited by the contractor in the Historic Environment Record and shall send confirmation in writing of such deposition at the same time to the council's advisor, except if further excavation/post-excavation work is required, when, by agreement, the period may be extended.
- 11.6 The contractor is advised to contact the council's archaeological advisor for advice and/or a suitable microfilming/microfiching contractor in connection with the making of this copy and to consult Microfilming Archaeological Archives (IFA Paper No 2, 1999). Cost estimates for the microfiching/microfilming of the site archive should be included within the contractors' quotations for this project.
- 11.7 Subject to the legislation of the Treasure Act 1996, all artefacts and ecofacts unearthed from the investigation and all other elements of the site archive should be deposited by the contractor in an appropriate public museum registered or provisionally registered by the Museums and Galleries Commission and acceptable to Cornwall Council. No artefacts or ecofacts from the site shall be deposited in the relevant museum without the prior written consent of the landowner.
- 11.8 Prior to the deposition of finds in the recipient museum, the contractor should agree with that museum the sample or quantity of bulk finds (pottery, animal and (if appropriate) human bone, other ecofactual material, building material, burnt flint, worked flint and stone) to be deposited.
- 11.9 All excavated artefacts and ecofacts and all other elements of the site archive should be delivered by the contractor to the recipient museum as one deposit. Where this arrangement is not practicable lists will be submitted by the contractor to the recipient museum of objects not deposited, together with information as to the quantity involved and their current location, reasons why items have not been deposited and a timetable for their ultimate deposition.
- 11.10 The contractor should contact the recipient museum prior to preparing cost estimates for the work in order to discuss any special requirements for the deposition of finds.
- 11.11 Subject to the resources available and to discussion with the recipient museum, all articles needing conservation will be properly stabilised by the contractor prior to their deposition at the recipient museum and records of their treatment lodged with the museum. Those items for which available resources do not permit stabilisation will be separately packed and listed by the contractor.

- 11.12 Prior to commencement of the archaeological investigations, the contractor shall obtain from the recipient museum an accession number for excavated artefacts and ecofacts from the project and any guidelines regarding deposition of such artefacts and ecofacts specific to the recipient museum.
- 11.13 All finds, save those specifically excluded by the recipient museum or excluded on grounds of size/material, must also be marked by the contractor with the recipient museum's accession number.
- 11.14 Artefacts and ecofacts deposited by the contractor in the recipient museum must be accompanied by the remainder of the original site archive or by a complete duplicate record thereof. A microfiched security copy of the site archive should also be supplied by the contractor to the recipient museum.
- 11.15 Subject to the agreement of the landowner, all artefacts and ecofacts recovered from the archaeological evaluation should be deposited by the contractor within the recipient museum within five years from the date of completion of the investigation.
- 11.16 Work on the site archive shall be completed within twelve calendar months of completion of the archaeological monitoring. Copyright of the written, drawn and photographic elements of the site archive shall be vested jointly with the contractors and the recipient museum.
- 11.17 The following document should be adhered to:
- Museum and Galleries Commission - Standards in the Museum Care of Archaeological Collections (1992).

12 Requirements of Archaeological Contractor

- 12.1 The archaeological contractor will provide a Method Statement for Undertaking the excavation, which will be compatible with the requirements of the council's advisor. This will include all fieldwork and post-excavation work, including archiving.
- 12.2 It will include a brief method statement, resourcing levels, risk assessment and programme/schedule for the works. The contractor should also provide a brief career profile of the site director, which demonstrates his/her suitability for undertaking the work.
- 12.3 A full cost estimate for the fieldwork, post-excavation and archiving should be provided to the client. This estimate should include costs pro-rata using day rates.

APPENDIX 2: Method statement for archaeological recording

Historic Environment Projects, Cornwall Council



Otterham Down Electricity Substation: Method Statement for archaeological watching brief

Client: Peter Wonnacott Planning
Client contact: Walter Wonnacott
Client tel: 07958 582192
Client email: pwplanning@peterwonnacott.com

Project background

This method statement has been produced for a watching brief during the construction of an electricity sub-station on Otterham Down centred on SX 1584 9018. It is to be used in conjunction with a Written Scheme of Investigation (WSI) previously prepared for the client (Archaeology & Planning Solutions 2013).

The watching brief is necessary as part of archaeological mitigation works required by condition 3 of planning permission for the scheme (PA12/06669) which states that:

No development shall take place within the area to be developed until the applicant has secured the implementation (of) the programme of archaeological recording based on the written scheme of investigation produced by Archaeology and Planning Solutions dated 2nd May 2013.

Working methods

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

Archaeological recording will comprise a watching brief prior to the construction phase of the scheme.

Fieldwork: watching brief

Site works will be carried out with an archaeologist in attendance to record any features which become exposed during the groundworks. A toothless grading bucket should be used during the removal of topsoil and subsoil. Where significant remains are encountered the archaeologist will be given the opportunity to make an appropriate record before work proceeds. Archaeological recording will consist of the following where appropriate:

- Hand cleaning of archaeological horizons and features.
- Site drawings (plans, sections, locations of finds) will be made by pencil (4H) on drafting film; all plans will be linked to the National Grid; all drawings will include standard information: site details, personnel, date, scale, north-point
- All features and finds will be accurately located at an appropriate scale.

- All archaeological contexts will be described to a standard format linked to a continuous numbering sequence.
- Photography: scaled monochrome photography will be used as the main record medium, with colour digital photography used more selectively and for illustrative purposes. All record photographs will include a scale and, where appropriate, a north arrow.
- Phased plans (at a scale of 1:20) and sections (at a scale of 1:10) will be made of all excavated features.
- Suitable sealed/undisturbed archaeological contexts in the form of buried soils, layers or deposits within cut features (ditches and pits, etc) will be sampled for environmental evidence and dating material. If deposits with significant paleoenvironmental potential are identified a site visit will be arranged from an environmental archaeology specialist to discuss and develop sampling methodologies in more detail.
- If significant archaeological deposits are exposed, all works will cease and a meeting convened with the client and the HEPAO to discuss the most appropriate way forward.

Treatment of finds

The fieldwork may produce artefactual/environmental material.

- All finds will be retained from each archaeological context. Modern finds may be disposed of at the cataloguing stage. This process will be reviewed ahead of its implementation.
- All finds will be collected in sealable plastic bags which will be labelled immediately with the context number or other identifier and the site code.
- Significant, sealed archaeological contexts will be considered for sampling for environmental material and the strategy will be discussed with the project manager. All recovered samples will be evaluated at the assessment stage and some may be disposed of. Only flots will be retained for inclusion within the project archive unless directed otherwise by the EH Regional Advisor for Archaeological Science.

Human remains

Any human remains which are encountered will initially be left in situ and reported to the HEPAO and the appropriate authorities (the Coroner), where appropriate. If removal is necessary this will comply with the relevant Government regulations. If burials are encountered their legal status will be ascertained and recording and/or removal will comply with the legal guidelines.

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

If human remains are to be removed this will be done with due reverence and in accordance to current best practice and legal requirements. The site will be adequately screened from public view. Once excavated, human remains will not be exposed to public view.

Creation of site archive

To include:

- Archiving of black and white photographs to HER standards.
- Digital colour photographs (stored according to HER guidelines and copies of images made available to the client).
- A detailed site description.
- Preparation of finished drawings.
- Retained artefacts will be catalogued and archived to RCM Museum standards.
- Completion of the English Heritage/ADS OASIS online archive index.

Archive report

A written report will include:

- Summary
- Project background
- Aims and objectives
- Methodology
- Location and setting
- Designations
- Site history
- Archaeological results
- Chronology/dating evidence
- Conclusions
- References
- Project archive index
- A context register with brief descriptions shall be included as an appendix.
- A copy of the brief and the approved WSI will be included as an appendix.
- Supporting illustrations: location map, historic maps, plans, elevations/sections, photographs.

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

Publication contingency

If deposits, features, and finds of national or regional importance are discovered full publication to an academic standard may be required. The HEPAO will notify the contractor of such a need within four weeks of receipt of the archive report.

Archive deposition

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

The archiving will comprise the following:

1. All correspondence relating to the project, the WSI, a single paper copy of the report together with an electronic copy on CD, stored in an archive standard (acid-free) documentation box.
2. A2 drawn archive storage (plastic wallets for the annotated record drawings)
3. Archive standard negative holders and archive print holders, to be stored in the HES system until transferred to the Royal Cornwall Museum.
4. Where no significant artefacts are recovered, the project archive will be deposited initially at ReStore PLC, Liskeard and in due course (when space permits) at Cornwall Record Office.
5. Where significant artefacts are recovered they will be archived to RCM Museum standards and deposited into an accredited museum.

Timetable

No timetable for the works has been provided at this stage. HE Projects will require at least two weeks notice before commencement of work, in order to allocate field staff time and arrange other logistics.

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

Monitoring and Signing Off Condition

Monitoring of the project will be carried out by Phil Copleston, Historic Environment Planning Advice Officer (East). Where the Historic Environment Planning Advice Officer is satisfied with the archive report and the deposition of the archive, written discharge of the planning condition will be expected from the local planning authority (LPA).

Monitoring points during the study will include:

- Approval of the WSI and Method Statement
- Completion of fieldwork
- Completion of archive report
- Deposition of the archive

Historic Environment Projects

Historic Environment Projects is the contracting arm of Historic Environment, Cornwall Council (HE). HE employs some 20 project staff with a broad range of expertise, undertaking around 120 projects each year.

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

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

Standards



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

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

Terms and conditions

Contract

HE Projects is part of Historic Environment, Cornwall Council. If accepted, the contract for this work will be between the client and Cornwall Council.

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

Project staff

The project will be managed by Andy Jones, BA, PhD, MifA.

Archaeologist Team Leader responsible for the origin and management and publication of a wide range of projects, in particular development-related assessments, evaluations and excavations. Major projects in recent years include excavation and publication of sites at Stannon, Tremough, Scarcewater and Camelford School. Currently he is engaged with the publication of fieldwork projects undertaken at Bosiliack, Clodgy Moor and Tremough. Principal research interests lie in the 4th to 2nd millennium cal BC (Neolithic and Bronze Age) and the interpretation and publication of sites dating to this period. Andy has been involved with the SWARF Neolithic and Bronze Age Group is a member of the South West Implement Petrology Group and a Cornwall Archaeological Society

committee member.

Andy will be responsible for:

- Discussing and agreeing the detailed objectives and programme of each stage of the project with the client and the field officers, including arrangements for health and safety.
- Monitoring progress and results for each stage.
- Editing the project report.
- Liaising with the client regarding the budget and related issues.

Work will be carried out by HE field staff, with assistance from qualified specialists and sub-contractors where appropriate. The project team is expected to include:

Sean Taylor, BA, AIFA

Archaeologist with HE, with a range of experience in undertaking archaeological assessments, excavations, evaluations, and watching briefs, and also landscape surveys. Also some experience in recording historic buildings. Past projects include supervising the Tremough, Scarcewater, Tregony, Camelford, Truro Eastern District Centre, and Victoria open area excavations. A large number of watching briefs and assessments have been carried out on road schemes, SWW pipelines, and various smaller projects. Landscape surveys include six assessments on the Lizard as part of the HEATH project and a number of surveys for the National Trust. GIS-led projects include the Seascapes Bristol Channel and China Clay industry assessment. Experienced user of AutoCAD, Adobe Illustrator, GIS, and EDM survey equipment. Holder of a CSCS card and qualified first aider.

Specialists may be required as part of a post excavation phase of assessment and analysis, if required.

HE Projects uses a wide range of specialists and these include the following:

| Specialism | Area of expertise | Name | CV |
|----------------|---------------------|------------------------|--|
| Archaeo-botany | Charcoal | Dana Challinor MA, MSc | Dana's main area of expertise is charcoal analysis and wood species identification, but she also has experience with charred plant remains. She will undertake assessment and analysis of any suitable charcoal samples, including identification of samples suitable for radiocarbon dating. |
| | Plant macro-fossils | Julie Jones BA | An experienced freelance archaeobotanical specialist based in Bristol, Julie has carried out palaeoenvironmental assessments and analyses for numerous HE projects. She will carry out assessment and analysis of plant macrofossils. |
| | Pollen | Ralph Fyfe PhD | Ralph is lecturer in environmental change in the School of Geography at the University of Plymouth. He has carried out numerous archaeological evaluations for a variety of organisations, including English Heritage, County Councils, National Parks, and archaeological consultancies and will undertake assessment and analysis of pollen samples if required. |

| Specialism | Area of expertise | Name | CV |
|------------------------------|---|---|--|
| Artefact analysis: general | Post-Roman artefacts | Carl Thorpe | Carl has worked for HE Projects for over 20 years. Carl is a national specialist in post-Roman ceramics (contributed analysis and report to University of Glasgow's publication of Excavations at Tintagel). He has a detailed knowledge of Romano-British, medieval and post-medieval ceramics. He is a specialist in stone artefacts and also has knowledge of other categories of finds (glass, metalwork, etc) from most periods. Carl is an experienced archaeological artefact illustrator with numerous published examples including finds from Tintagel and Trethurgy. His research interests include the Romans in Cornwall; the post-Roman period in Britain and its trade connections; early medieval inscribed stones; medieval graffiti and graffiti games. Member of the Society for Medieval Archaeology. |
| Artefact analysis: lithics | Flint | Anna Lawson Jones | Anna has worked for HE Projects for over 20 years. Specialist in the analysis and illustration of worked flint from a range of different projects (often for external publication). Projects involved include; Stannon, Gwithian, Tremough, Binhamy, Trevelgue, Constantine Island, Little Quoit Farm, the A30 project, the Clodgy Moor flint project, Isles of Scilly etc. A member of the LITHICS Society, an Associate within IfA and holder of a CSCS card. |
| Artefact analysis: metalwork | Iron Age/Romano-British brooches | Sarnia Butcher | Sarnia is retired English Heritage Inspector of ancient Monuments who directed the excavations at Nornour (1969-72) and now lives on Scilly. She is an expert on Romano-British brooches. |
| | Lead objects | Oliver Jessop | Oliver has experience in the assessment and analysis of lead objects. He has worked on the assemblage from Restormel Castle. |
| Artefact analysis: pottery | Pre-historic, Roman, post-Roman pottery | Henrietta Quinnell BA, MIFA, FSA | Henrietta is a freelance pottery specialist and the leading authority on prehistoric pottery and worked stone in the south-west. She will undertake pottery assessment and analysis in the event of prehistoric, Roman, or post-Roman pottery being recovered. |
| | Medieval/post-medieval pottery | John Allan MPhil | John is the leading authority on medieval and post-medieval pottery in south-west England and author of many publications. He will carry out pottery assessment and analysis in the event of medieval or post-medieval pottery being recovered. |
| Artefact analysis: petrology | Petrology | Roger Taylor | Roger has undertaken a wide range of petrological analysis, in particular the petrology of ceramic objects and the identification of sources for worked stones. |

| Specialism | Area of expertise | Name | CV |
|-----------------------|--|-------------------------------------|--|
| Artefact conservation | Pottery/metalwork | Laura Ratcliffe BA | Laura graduated in Archeological Conservation from Cardiff University in 2001. Since then she has gained a wide variety of experience both on excavations and in a lab working on a wide variety of archaeological and historical material. Until recently she was Collections Manager at the Royal Cornwall Museum, Truro. Laura will carry out conservation of pottery and/or metalwork if required. |
| Artefact illustration | | Jane Read | Jane has produced a considerable number of publication drawings of artefacts. |
| Buildings | Building materials analysis and building recording | Eric Berry | A freelance Historic Buildings Consultant, with extensive experience of Listing reviews for English Heritage and has surveyed and photographed numerous early buildings in Cornwall. Eric formerly worked as a Conservation Officer for Carrick DC and serves on the committee of the Cornish Buildings Group. |
| Dating | Radio-carbon | SUERC Radiocarbon Dating Laboratory | Samples for radiocarbon dating will be sent to the Scottish Universities Environmental Research Centre. |
| Geo-archaeology | Landscape geo-archaeology, soils sediments and land snails | Mike Allen | Mike Allen is a geoarchaeologist and environmental archaeologist with nearly 30 years professional experience. He provides a range of field, laboratory, analytical and consultancy palaeo-environmental and geoarchaeological services to independent archaeologists, archaeological companies, English Heritage, County Councils and Universities. Mike's areas of expertise are landscape geoarchaeology, soils sediments and land snails. He gives geoarchaeological advice, site visits and augering to sampling and processing samples and assessment and co-ordinating palaeo-environmental teams, editing and providing reports for publication as well as land snail analysis, radiocarbon advice, calibrations and sampling. |
| Metallurgy | | Peter North-over DPhil, MIfA | Peter is a lecturer at the Department of Materials, University of Oxford who specialises in microscopy of ancient and historic metalwork; and long term ageing of materials. Peter will carry out metallurgical analysis if required. |
| | Slag analysis | Dr Tim Young | Tim has undertaken a range of analyses on slag assemblages from sites including the Brownie Cross medieval tin smelting site and earlier material from Richard Lander School, Truro and Camelford School. |

| Specialism | Area of expertise | Name | CV |
|--------------------|-------------------|--------------------|---|
| Molluscs | Marine molluscs | Matt Law MSc | Matt is freelance shell specialist, currently doing a part time PhD at Cardiff University, who has carried out palaeoenvironmental assessments and analyses for a number of HE projects |
| | | Jan Light PhD, FLS | Jan has undertaken a number of assessments and analyses of marine molluscan assemblages from Cornwall and Scilly. |
| | Land molluscs | Paul Davies | Paul has undertaken assessment of the land snail assemblage from the Restormel Castle excavations. |
| Ostaeo-archaeology | Animal bone | Claire Ingrem PhD | Claire is a very experienced freelance faunal remains specialist who has studied many animal bone assemblages. She will carry out assessment and analysis of animal bone. |
| | Human bone | Jacqui McKinley | Jacqui is Senior Ostaeoarchaeologist, Wessex Archaeology and one of the UK's leading specialists in the study of human remains and has published extensively on this subject, including authorship of seminal procedural guidelines dealing with the treatment of human remains throughout the archaeological process. She will carry out assessment and analysis of human bone and sampling for C14 dating if appropriate. |

Report distribution

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

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

Copyright

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

Use of the material will be granted to the client.

Freedom of Information Act

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

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

Health and safety statement

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

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

Insurance

As part of Cornwall Council, HE is covered by Public and Employers Liability Insurance, with a policy value of £50m. The Council also has Professional Negligence insurance with a policy value of £5m.

References

Archaeology & Planning Solutions, 2013. *Rose Park Farm, Otterham Station, Camelford, Cornwall: Written Scheme of Investigation for Archaeological Mitigation*, Cirencester

Sean R Taylor

Archaeologist

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Historic Environment Projects

Environment Directorate

Cornwall Council

Fal Building, County Hall,

Treyew Road,

Truro, Cornwall. TR1 3AY

Tel: 07968 892140

Email: setaylor@cornwall.gov.uk