Archaeology South-East

ASE

Geo-Archaeological Borehole Survey and Archaeological Evaluation Report Proposed Shepham Wind Farm Site Polegate, East Sussex

NGR 559940 105830

ASE Project No: 5294
Site Code: SWF 11

ASE Report No: 2012046
OASIS id: archaeol6-121397

By Andrew Margetts and Dr Matt Pope

With contributions from Dr Lucy Allott, Rob Batchelor Karine Le Hégarat and John Whittaker

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Abstract

Archaeology South-East was commissioned by Regeneco to undertake a programme of geo-archaeological and archaeological fieldwork in advance of the consideration of a planning application for a proposed wind farm at Shepham, Polegate, East Sussex.

The geo-archaeological sequence revealed by the borehole survey at Shepham Farm provides an indication of a regionally important sequence that may greatly increase our understanding of the nature and timing of landform development in the East Sussex Coastal marshes. Preserved at the locale is a sequence which spans fully marine, intertidal and freshwater/terrestrial edge conditions. The sequence preserves a variety of palaeoenvironmental indicators and deposits suitable for dating and should be considered a high priority for further investigation.

The archaeological evaluation encountered no significant features or finds apart from an area of undated burning in Trench 4.

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1.0 INTRODUCTION

1.1 Site Background

1.1.1 Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL), was commissioned by Regeneco to undertake a programme of archaeological and geo-archaeological fieldwork in advance of the consideration of a planning application for a proposed wind farm at Shepham, Polegate, East Sussex. The site is centred on National Grid Reference (NGR) 559940 105830; its location is shown in Figure 1.

1.2 Geology and Topography

1.2.1 The site has been the subject of a full archaeological desk-based assessment (Brooks 2011) from which the details of the sites topography are reproduced below.

1.2.2 The site lies in an area of Polegate, north of the A27. Measuring *c*. 1.39 square kilometres, the development site lies within a relatively level area of land and is bisected by a single carriage road aligned roughly northeast-southwest, which is now closed to vehicles and is a designated cycle way.

1.2.3 The A27 runs northwest-southeast to the south of the site and forms most of the southern boundary. The B2104 (Hailsham Road), aligned northwest-southeast, forms the northern boundary of the site. Agricultural fields form the sites eastern and western boundaries.

1.2.4 The land is in partly used as arable fields.

1.2.5 The western boundary, at its closest, lies *c*. 2km from the edge of the South Downs National Park, a small area of which lies within the search 2-5km radius set from the centre of the site.

1.2.6 The site occupies a broad floodplain flanked by low ridges. It straddles the boundary between the solid geologies of the Weald Clay (to the south) and Tunbridge Wells Sandstone (to the north). The BGS maps the floodplain as undifferentiated alluvium and superficial spread of head deposits on the ridges. Five locations were identified within this landscape for the siting of wind turbines and these locations occupied positions ranging from central floodplain, floodplain edge and the flanks of the ridges.

1.2.7 The floodplain represents the south-western margins of a silted former tidal inlet, today known as Glynleigh Level. Along with other 'levels' in the area, Glynleigh Level comprises part of the East Sussex Coastal Marshes landform, a series of continuous infilled inlets between Eastbourne and Bexhill, bounded by higher topography of Weald Clay, Greensand and Tunbridge Wells Sandstone Geology (Jennings & Smyth 1990, 1985, 1987,1982.

1.3 Planning Background

1.3.1 The proposed development comprises a wind farm, consisting of five wind turbines, on-site access tracks, a sub-station and control building, a meteorological mast and underground cabling.

1.3.2 Following submission of a Desk-Based Assessment (Brooks 2011) and subsequent Environmental Statement, East Sussex County Council and English Heritage requested a programme of pre-determination archaeological fieldwork. This was carried out to inform the decision on the forthcoming planning application. The works consisted of a geo-archaeological borehole survey and an archaeological evaluation.

1.3.3 The borehole survey was undertaken in five locations (designated BH's1-5). The archaeological evaluation comprised five, 5m by 2m evaluation trenches.

1.3.4 Dependent on the results of the fieldwork an archaeological condition may or may not be set on any successful planning application.

1.3.5 A Written Scheme of Investigation (ASE 2011) relating to the archaeological evaluation was prepared and approved by Casper Johnson (ESCC). All works were carried out in accordance with the *Standards for Archaeological Fieldwork, Recording, and Post-Excavation Work in East Sussex* (ESCC 2008). Any variations to the scope of work were to be agreed with Greg Chuter prior to implementation.

1.4 Aims and Objectives

1.4.1 The general aims and objectives of the archaeological investigation as set out in the Written Scheme of Investigation (*ibid*) were to establish:

- Whether archaeological remains are present on the site and if so assess the date, survival and condition of said remains.
- The character date and quality of ancient remains and deposits.
- How they might be affected by the development of the site
- What options should be considered for mitigation
- To make public the results of the archaeological evaluation, subject to any confidentiality restrictions.

1.5 Scope of Report

1.5.1 This report outlines the results of the evaluation, undertaken by Andrew Margetts (Senior Archaeologist) and Lesley Davison (Surveyor), as well as the geo-archaeological borehole survey undertaken by Dr Matt Pope on the 6th and 7th of February 2012. The project was managed by Jon Sygrave (fieldwork) and Jim Stevenson (post-excavation).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological background of the site was outlined in the preceding DBA (Brooks 2011) and is summarised below.

2.1.2 The HER data concerning the recorded sites and monuments within a 2km radius of the site is fairly varied. Several of the entries refer to excavated features generally found under watching brief conditions, but also includes evaluation work. Archaeology found mainly consists of Iron Age and medieval features, as well as the remains of a prehistoric, four-posted, structure.

2.1.3 An extensive evaluation conducted by Archaeology South-East in 1999 (ASE 1999) was carried out in advance of the construction of A27 bypass. Parts of this work bordered the current site. Prehistoric flintwork was recovered during the evaluation together with medieval settlement activity.

2.1.4 A programme of archaeological work was carried out by Archaeology South-East at the Bluebells Development, Dittons Road (Stevens 2011) situated approximately half a kilometre to the south of the site. The investigations revealed a background scatter of residual Mesolithic and Neolithic flintwork as well as a late Iron Age/Early Romano-British farmstead with evidence of salt-working, crop-processing and smithing. The site was re-occupied during the Mid-Saxon period as represented by a scatter of charcoal-rich pits. Sparse later medieval and post-medieval evidence at the site shows continued archaeological activity during these periods.

2.1.5 Various isolated finds are recorded in the HER data. These are part of a flint axe, a Roman coin hoard, prehistoric flintwork, a Roman lamp, a brooch, a ring, and a lead toy. These artefacts have generally been found through activities such as gardening, metal detecting, or through late 19th C building work, and have no context.

2.1.6 Table 1 below lists the identified and/or anticipated heritage assets that may occur within the development site area (as identified from the DBA) which potentially may be directly/physically impacted by proposed development activities.

Heritage Asset Component		Identified/ Anticipated	Description	Cultural Value	Potential
Prehistoric	Evidence of occupation/ settlement activity	Anticipated	Post holes, ditches/ard marks/hearths	Local - Regional	**Low - Medium**
Roman	Settlement activity	Anticipated	Post holes, ditches	Local - Regional	**Low -**
Medieval	Trackways and/or field boundaries/ agricultural activity/settlement activity	Anticipated	Remains of ditches/lynchets	Local – Regional	**Low - Medium**
Post-medieval	Agricultural activity	Anticipated	Remains of ditches/plough scars	Local	**Low - Medium**

Table 1: Identified and/or anticipated heritage assets within the development site boundary

3.0 GEOARCHAEOLOGICAL AND ARCHAEOLOGICAL METHODOLOGY

3.1 Methodology

3.1.1 The geo-archaeological borehole survey comprised the drilling of 5 boreholes, one within each of the proposed turbine footprints. The work was undertaken with a terrier rig and plastic sleeved cores were retrieved to a depth of up to 5m from each location. If deposits continued past this depth grab samples were taken from window samples to a depth of *c*. 10m. The geo-archaeologist created a detailed log of the sediments encountered

3.1.2 The evaluation comprised the excavation of five trenches measuring 5m by 2m located within liminal (between high and low/varying geological) areas of the site identified as being the subject of development. The trenches were placed close to the boreholes to better inform their results. Trench 1 was targeted on the margins of alluvium over head or Greensand and Trenches 2-5 are targeted on the margins of alluvium over Tunbridge Wells Sands. Further trenching may be required during later phases of work.

3.1.3 The trenches and boreholes were accurately laid out using a GPS survey system or total station and tied in to the National Grid. No modification to the suggested trench positions was necessary due to obstructions.

3.1.4 The trench and borehole locations were scanned prior to excavation using a CAT scanner. The trenches were excavated using an 8T tracked machine equipped with a toothless ditching bucket.

3.1.5 Only undifferentiated topsoil, subsoil and overburden of recent origin was removed by machine and was kept separately. The excavation was taken down to the top of the first significant archaeological horizon or the top of the underlying 'natural' deposit, whichever was uppermost. All machining was undertaken under the supervision of a suitably qualified archaeologist.

3.1.6 On conclusion of the excavation, the spoil was backfilled by machine, in appropriate sequence, spread evenly and compacted to ensure a surface flush or nearly flush with the ground surface. The original surface was not reinstated.

3.2 Recording Methodology

3.2.1 All trenches were planned, photographed and recorded under the assigned site code. Sections were generally drawn at a scale of 1:10, and where appropriate at a larger scale of 1:20. All site drawings were digitised.

3.2.2 All deposits were recorded using the standard context record sheets used by Archaeology South-East.

3.2.3 All context numbers were prefixed by the relevant trench number.

3.2.4 A photographic record was made of all archaeological features. All photographs, except working shots, included a board that detailed: the site code, date and context number, a scale and a north arrow.

3.3 Site Archive

3.3.1 The site archive is currently held at ASE offices in Portslade. Eastbourne Museum Service has agreed to take the archive at the end of the project under accession number: ELHAMS. 2011.8 (amalgamated with ASE project: 4557).

Number of Contexts	15
No. of files/paper record	1
Plan and section sheets	0
Bulk Samples	1
Photographs	9 digital images
Registered finds	N/A

Table 2: Quantification of site archive

4.0 BOREHOLE SURVEY RESULTS (Figure 2)

4.1 Introduction

4.1.1 Five geo-archaeological augur samples were undertaken under direct geoarchaeological supervision (Dr Matt Pope) in the positions shown in Figure 2, using a GeoTool GTR780 dynamic probing/window sampler rig capable of recovering sleeved cores. These cores were undertaken in order to determine the sub-surface sedimentary profile of each proposed Turbine location. Each core was sunk through alluvium and head deposits until the natural solid was encountered, the solid was then probed for a surface 1-2m in order to prove consistency. Sleeved cores were retained for all alluvial and head components of the sequence for off-site recording.

4.2 Core Sampling and Logging by Liz Chambers and Lucy Allott

4.2.1 The five cores were logged on a microstratigraphic basis after opening in the lab. Sediment descriptions were made at 0.25m intervals or at the junction of major stratigraphic or lithological boundaries. The descriptions comprised matrix lithology, coarse components, sediment cohesion as well as characterisation of superficial structures and likelihood of decalcification/oxidisation. The cores were then assessed by eye to establish which samples provided the best potential for detailed assessment of pollen and microfauna. The cores were sub-sampled accordingly (see Appendices 1 and 2) and pollen samples were submitted to Rob Batchelor at QUEST and microfauna samples were sent to John Whittaker.

4.2.2 Context XI, from Core 1.2 was rich in organics including macro plant remains. The remainder of this deposit (after sub-sampling) was further processed to obtain remains suitable for dating. The sample was wet sieved through 500µm and 250µm geological sieves; the fractions were bagged separately, in water, and retained for recovery of macrobotanicals and assessment of dating potential.

4.3 Core 1

	Unit	Description	Pollen	MicroPal	Other
WS 1.1	I	Topsoil			
	II	Subsoil			
	II	Weathered light brown Alluvium			
WS 1.2	III	Light Grey silt sand			
	IV	Light Yellow Brown silt sand	Y	Y	
	V	Light Yellow Grey fine sand			
	VI	Mottled Grey/Yellow clay	Y	Y	
	VII	Dark Brown organic clay	Y	Y	
	VIII	Light Grey clay	Y		
	IX	Grey organic clay		Y	
	X	Dark Grey organic clay	Y	Y	
	XI	Organic Bed (Peat)	Y		Wet sieved for organics 2 x C14 samples submitted
	XII	Orange/Grey mottled Alluvium		Y	
	XIII	Grey silty clay	Y	Y	Wood fragments extracted
WS 1.3	XIV	Light Olive Grey fine sand Marine Alluvium	Y	Y	
	XV	Light Grey fine sand			
	XVI	Grey Cretaceous (solid to 4m)			

Table 3: Core 1 data (WS = window sample)

4.4 Core 2

	Context	Description	Pollen	Micropal
WS 2.1	I	Topsoil		
	II	Subsoil (Weathered Alluvium)		
	III	Oxidised Contact		
	IV	Grey with Orange laminations (solid)	Y	Y
WS 2.2	V	As above (Cretaceous solid)		
	VI	Laminated Grey and Orange sand (solid to 4m)		

Table 4: Core 2 data (WS = window sample)

4.5 Core 3

	Context	Description	Pollen	Microfauna
WS 3.1	I	Topsoil		
	II	Grey and Orange W. Cretaceous Solid	Y	Y
WS 3.2	III	Orange-Yellow Clay (solid)		
	IV	Grey laminated clay (solid)		
WS 3.3		Solid geology (to base 4m)		

Table 5: Core 3 data (WS = window sample)

4.6 Core 4

	Context	Description	Pollen	Microfauna
WS 4.1	I	Olive Grey alluvium	Y	Y
	II	Laminated Grey sand (Weathered Cretaceous Solid)	Y	Y
WS 4.2	III	as above		
	IV	Solid Geology (to base 4m))		

Table 6: Core 4 data (WS = window sample)

4.7 Core 5

	Context	Description	Pollen	Micropal
WS 5.1	I	Topsoil		
	II	Subsoil		
	III	Orange Brown Clay (oxidised) Weald Clay (to base 4m)		

Table 7: Core 5 data (WS = window sample)

5.0 EVALUATION RESULTS (Figure 2)

5.1 Introduction

5.1.1 The trenches encountered little disturbance and indications were that the natural horizon was intact.

5.2 Trench 1

5.2.1 Trench 1 measured 5m in length x 2m wide and was orientated on a roughly northwest-southeast alignment. The trench was excavated to the natural horizon.

Context No	Type	Description	Max. Length	Max. Width	Max Deposit Thickness	Height m.AOD
1/001	Deposit	Ploughsoil	Tr.	Tr.	0.30m	2.28
1/002	Deposit	Weathered Alluvium	Tr.	Tr.	0.40m	1.98
1/003	Deposit	Natural Alluvium	Tr.	Tr.	-	1.58

Table 8: Context register, Trench 1

5.2.2 Natural alluvium [1/003], a compact, mid blue grey, silt clay with frequent manganese inclusions was overlain by:

5.2.3 A firm mid-brown yellow silt clay of superficial head deposits [1/002]. This was overlain by [1/001] a firm mid- grey brown silt clay ploughsoil.

5.3 Trench 2

5.3.1 Trench 2 measured 5m in length x 2m wide and was orientated on a roughly northwest-southeast alignment. The trench was excavated to the natural horizon.

Context No	Type	Description	Max. Length	Max. Width	Max Deposit Thickness	Height m.AOD
2/001	Deposit	Ploughsoil	Tr.	Tr.	0.25m	2.17
2/002	Deposit	Subsoil	Tr.	Tr.	0.20	1.88
2/003	Deposit	Natural Alluvium	Tr.	Tr.	-	1.68

Table 9: Context register, Trench 2

5.3.2 Natural alluvium [2/003], a compact, mid blue grey, silt clay with frequent manganese inclusions was overlain by a firm mid brown yellow silt clay subsoil [2/002] with no noticeable inclusions. This was overlain by [2/001] a firm mid grey brown silt clay ploughsoil.

5.4 Trench 3

5.4.1 Trench 3 measured 5m in length x 2m wide and was orientated on a roughly northwest-southeast alignment. The trench was excavated to the natural horizon.

Context No	Type	Description	Max. Length	Max. Width	Max Deposit Thickness	Height m.AOD
3/001	Deposit	Ploughsoil	Tr.	Tr.	0.30m	1.63
3/002	Deposit	Subsoil	Tr.	Tr.	0.25m	1.33
3/003	Deposit	Natural Alluvium	Tr.	Tr.	-	1.08

Table 10: Context register, Trench 3

5.4.2 Natural alluvium [3/003], a compact, mid blue grey, silt clay with no noticable inclusions was overlain by:

5.4.3 A firm mid brown yellow silt clay subsoil [3/002] with no noticeable inclusions. This was overlain by a firm mid grey brown silt clay ploughsoil [3/001].

5.5 Trench 4

5.5.1 Trench 4 measured 7m in length x 2m wide and was orientated on a roughly north-south alignment. The trench was extended to investigate the extent of a burnt deposit and was excavated to the natural horizon.

Context No	Type	Description	Max. Length	Max. Width	Max Deposit Thickness	Height m.AOD
4/001	Deposit	Ploughsoil	Tr.	Tr.	0.30m	2.05
4/002	Deposit	Subsoil	Tr.	Tr.	0.20m	1.75
4/003	Deposit	Burning	Tr.	Tr.	0.10m	1.55
4/004	Deposit	Natural Alluvium	Tr.	Tr.	-	1.45

Table 11: Context register, Trench 4

5.5.2 Natural alluvium [4/004], a compact, mid blue grey, silt clay with no noticeable inclusions was overlain by:

5.5.3 A firm mid-dark black grey clay silt [4/003]. This contained frequent inclusions of charcoal and fired clay. An environmental sample was retrieved from this deposit (see section 6.1). This was overlain by a firm mid brown yellow silt clay subsoil [4/002] with no noticeable inclusions. This was overlain by a firm mid grey brown silt clay ploughsoil [4/001].

5.6 Trench 5

5.6.1 Trench 5 measured 5m in length x 2m wide and was orientated on a roughly north-south alignment. The trench was excavated to the natural horizon.

Context No	Type	Description	Max. Length	Max. Width	Max Deposit Thickness	Height m.AOD
5/001	Deposit	Topsoil	Tr.	Tr.	0.30m	4.46
5/002	Deposit	Natural Weald Clay	Tr.	Tr.	-	4.16

Table 12: Context register, Trench 5

5.6.2 Natural Weald Clay [5/002], a firm, mid orange yellow, clay was overlain by firm mid grey brown silt clay ploughsoil [5/001].

6.0 THE GEOARCHAEOLOGICAL AND ENVIRONMENTAL SAMPLES

6.1 **The Macrobotanicials** by Lucy Allot

6.1.1 The small sample from Core 1.2, Context XI an 'organic bed' was rich in well preserved macrobotanical remains including both fruits and seeds. Remains noted include hawthorn (*Crataegus monogyna*), dog rose (*Rosa canina*), bramble/raspberry (*Rubus* sp.), meadow/creeping/bulbous buttercup (*Ranunculus acris/repens/bulbosus*).

6.2 **Radiometric Dating** by Lucy Allott

6.2.1 Two macrofossils were extracted for C14 dating [ASE_DS_00093 (*Crataegus monogyna*) and ASE_DS_00094 (*Rosa canina*)] and submitted to SUERC. These dates were returned with modern dose levels which cannot at this stage be explained.

6.3 **The Pollen Assessment** by Rob Batchelor

(Refer to table in Appendix 1)

6.3.1 This report summarises the findings arising out of the pollen assessment undertaken by Quaternary Scientific (QUEST), University of Reading in connection with archaeological investigations carried out at Shepham Farm, Polegate (site code: SWF11) by Archaeology South East. During the course of these investigations, four window sample boreholes were put down across the site (1.1, 2.1, 3.1 and 4.1). The overarching aim of the pollen assessment was to evaluate the potential of the sedimentary sequence for reconstructing the vegetation history of the site and its environs.

6.3.2 Twelve sub-samples were extracted for the assessment of pollen content (eight samples from borehole 1.1; one sample from borehole 2.1; one sample from borehole 3.1 and two samples from borehole 4.1). The pollen was extracted as follows: (1) sampling a standard volume of sediment (1ml); (2) adding two tablets of the exotic clubmoss *Lycopodium clavatum* to provide a measure of pollen concentration in each sample; (3) deflocculation of the sample in 1% Sodium pyrophosphate; (4) sieving of the sample to remove coarse mineral and organic fractions (>125µ); (5) acetolysis; (6) removal of finer minerogenic fraction using Sodium polytungstate (specific gravity of 2.0g/cm^3); (7) mounting of the sample in glycerol jelly. Each stage of the procedure was preceded and followed by thorough sample cleaning in filtered distilled water. Quality control is maintained by periodic checking of residues, and assembling sample batches from various depths to test for systematic laboratory effects. Pollen grains and spores were identified using the Royal Holloway (University of London) pollen type collection and the following sources of keys and photographs: Moore *et al* (1991); Reille (1992). Plant nomenclature follows the Flora Europaea as summarised in Stace (2005). The assessment procedure consisted of scanning the prepared slides, and recording the concentration and preservation of pollen grains and spores, and the principle taxa on four transects (10% of the slide; Appendix 1). The addition and counting of Lycopodium spores has also permitted the calculation of total land pollen grains/cm^3.

6.3.3 Core 1:

- Samples IV, VI and XV all contained an absence of pollen.
- However, samples VII, IX, X, XI and XIII all contained a high (or very high) concentration of remains in a very good state of preservation. All these samples were from fine-grained and often organic-rich sediments.
- In samples VII and IX, the assemblage was dominated by trees and shrubs including *Quercus* (oak), *Alnus* (alder), *Corylus* type (e.g. hazel), *Hedera* (ivy), *Betula* (birch) and *Tilia* (lime), with a lower concentration of herb and spore taxa such as Poaceae (grass family), Cyperaceae (sedge family) and *Chenopodium* type (e.g. fat hen) Lactuceae (dandelion family), *Polypodium vulgare* (polypody fern) and *Pteropsida* (undifferentiated fern spores). This assemblage is indicative of the dominance of wetland and dryland woodland communities such as alder carr and mixed deciduous woodland on and nearby to the site, with grasses and ferns growing as ground flora components.
- Samples X and XI contained a similar assemblage, but the concentration of herbaceous pollen types (particularly grasses) was much higher, suggesting more open environments. The speed of this transition and the potential causal factors are unknown at this stage.
- However, it is also highlighted that large grass grains were recorded in samples IX and X, which might be representative of pollen from cereals such as *Triticum* (wheat), *Hordeum* (barley) or *Avena* (oats). If this is the case, it may indicate that the changes in environment were related to human related processes.
- Finally, sample XIII was dominated by *Pinus* (pine) with sporadic occurrences of oak, hazel grass and possibly elm (*Ulmus*). This assemblage might suggest the local growth of pine, but is thought more likely to represent a biased assemblage since this grain is well documented for being over-represented in sequences as a result of its ability to travel long distances.

6.3.4 *Core 2*

Sample IV from this borehole contained a low concentration of pollen in a poor state of preservation. *Tilia* (lime), a spore that resembled *Polypodium vulgare* (polypody fern) and *Pterospida* (undifferentiated fern spores) were the only taxa recorded. These grains suggest the nearby growth of deciduous woodland taxa. However, all these pollen types are easily recognisable and/or have morphology resistant to decay (especially *Tilia*), and thus may be over-represented in comparison to other pollen taxa, or may even represent reworked deposits.

6.3.5 *Core 3*

Sample II from this borehole contained a low concentration of pollen in a poor state of preservation. *Corylus* type (e.g. hazel), *Tilia* (lime) and a spore that resembled *Polypodium vulgare* (polypody fern) were all recorded in very low numbers. These grains suggest the nearby growth of deciduous woodland taxa. However, as above, all these pollen types are easily recognisable and/or have morphology resistant to decay (especially *Tilia*), and thus may be over-represented in comparison to other pollen taxa, or may even represent

reworked deposits.

6.3.6 *Core 4*

Samples I and II from this borehole both contained a low concentration of pollen in a poor to moderate state of preservation. In both samples, the only pollen grain grains were recorded were *Pinus* (pine) and indeterminate spores. Due to the over-representation of pine pollen within stratigraphic sequences, due to its ability to travel long distances, and the resistance to decay of spore taxa, it is not possible to carry out an environmental reconstruction of the site from these samples.

6.3.7 Discussion

6.3.8 No further work is recommended on the samples taken from Boreholes 2.1, 3.1 and 4.1 due to the low concentration and preservation of pollen recorded. Similarly, certain horizons within borehole 1.1 contain an absence of pollen and thus warrant no further work. However, samples collected from the fine-grained and frequently organic-rich units of borehole 1.1 contain a very high concentration of pollen in a very good state of preservation. These samples also contain a diverse pollen assemblage of tree, shrub, herb and spore taxa, with good potential to reconstruct the environmental history of the site and its environs, as well as to provide evidence for the presence or absence of human activity. These samples are therefore recommended for further work if a chronological framework can be provided for the sequence.

6.4 The Micro Fauna by John Whittaker

(Refer to tables in Appendix 1)

6.4.1 Twelve sediment samples were assessed for microfaunal content. The site is on the SW fringes of the Pevensey Levels, a large embayment flooded by the sea in early Holocene times. This resulted in a tidal estuary with a wide bay east of Eastbourne, subsequently becoming brackish saltmarsh and (freshwater) wetland as the marine inlet silted up. The material was submitted by Dr M.I. Pope (Archaeology South-East) in the hope of finding “organic remains”, in particular ostracods and foraminifera. If so, they ought to provide information into the changing environment at the site through time, and in particular indicate whether this rather peripheral site, in terms of location to the embayment, was ever subject to tidal influences. Eight of the samples (cores 1.2 and 1.3, samples IV – XV) were from the main reference section, whilst the other four, one each from cores 2.1 and 3.1 and two from Core 4.1 were spot samples for comparative purposes.

6.4.2 Methods

Core	Sample	Weight processed
1.2	IV	180g
1.2	VI	295g
1.2	VII	30g
1.2	IX	50g
1.2	X	30g
1.2	XII	395g
1.2	XIII	155g
1.3	XV	110g
2.1	IV	185g
3.1	II	190g
3.1	I	75g
3.1	II	70g

6.4.3 Each sample was placed in a ceramic bowl. Where necessary the sediments, especially the organic silty clays, were broken into small pieces by hand and then dried in an oven. When dry, they were soaked in hot water with a little sodium carbonate added to assist breakdown, especially of the clay fraction. After standing overnight each sample was washed with hand-hot water through a 75 micron sieve, the remaining residue being then decanted back into the bowl. This was dried in the oven and when cool, transferred to labelled plastic bags for storage. Analysis was achieved by dry sieving the samples into several grades and then sprinkling each a little at a time onto a tray for examination under a binocular microscope. A representative fauna of ostracods, foraminifera and certain useful "organic remains" were put into 3x1" faunal cardboard slides for reference. The "organic remains" were noted and are listed on the uppermost table of the accompanying range charts (Appendix 2) on a presence (x) absence basis only, whereas the foraminifera and ostracods are listed semi-quantitatively (present/common, etc.) on subsequent tables of Appendix 2.

6.4.4 *Main Reference Section*

6.4.5 Eight samples constitute this section, seven (IV down to XIII) from Core 1.2 and one (XV) from Core 1.3. The results of the microfaunal assessment are shown in Appendix 2 accompanying this report. The uppermost table shows the "Organic Remains" which proved very rich and diverse, apart from in the uppermost (IV) and lowermost (XV) samples. Underneath this table is a brief synthesis of the ecology, based on these remains, especially the foraminifera and ostracods. The distribution of the latter are shown in the tables below. These are, respectively, for freshwater ostracods, brackish ostracods, brackish foraminifera, marine/outer estuarine ostracods and marine/outer estuarine foraminifera. Within these, all the species are colour-coded to reflect their preferred environmental niches, these being listed at the foot of tables in Appendix 2.

6.4.6 The uppermost sample (IV) contains only iron mineral/iron tubes and some small pieces of charcoal. It would seem to represent a weathered surface, the charcoal either being due to natural burning or that the site has indication of human habitation.

6.4.7 The four samples below this (VI – X) contain plant remains, seeds, insect remains, earthworm granules, cladoceran ephippia (egg cases of water-fleas such as *Daphnia*), charophyte oogonia (reproductive bodies of the stonewort plant), testate amoebae), and up to four species of freshwater ostracod (colour-coded light blue). All this would normally indicate a freshwater environment, if it was not for the co-occurrence of brackish calcareous foraminifera (colour-coded grey), of three species and in reasonable numbers, which inhabit mudflats and tidal creeks. It looks as though the site, therefore, was at this time a watercourse with mudflats and within reach of the tides, albeit possibly only on the highest Springs (this, in turn, being backed by pools and wetland). There is no evidence from the foraminifera that there was any mid-high saltmarsh developed, as the distinctive agglutinating foraminifera of such habitats are totally absent.

6.4.8 The two samples below that (XII and XIII) certainly produce the most interesting results in the sequence, for here we have not only an even greater diversity of "Organic Remains" (some thirteen different items being listed for sample XII alone in Appendix 2), but also, most notably, a very substantial and diverse marine/outer estuarine component (colour-coded blue). These latter are species of ostracod and foraminifera which, although essentially marine, can penetrate outer estuaries. There is even one (colour-coded orange) that emanates from the inner shelf. What does this mean? It must tell us that, at this time, the Pevensey Levels was occupied by a wide estuary or embayment open to marine access, and in particular subject to strong tidal surges, these reaching far into areas which might be considered quite peripheral sites, as indeed the location of Shepham Farm seems to be. These catastrophic events served to throw together all these various components, some of them being reworked/redeposited from surrounding wetland and freshwater habitats, the rest from the outer parts of the estuary and associated marine littoral. For instance the earthworm granules occur in their thousands and the slug plates are large! The molluscs here would also warrant a specialist analysis, especially from sample XII. Ultimately, it will be interesting to determine the date of this part of the sequence. It may even signify the very onset of the formation of the marine embayment, because the sample below, the lowermost sample examined in the main reference section (XV from Core 1.3), contains only a little plant debris, is mainly fine silt, and would appear to be freshwater alluvium.

6.4.9 *Spot samples*

6.4.10 The results of the four spot samples from cores 2.1, 3.1 and 4.1 are shown in Appendix 2 accompanying this report. Three of them contain iron minerals (perhaps from a thin iron-pan) and seems to represent weathered sediments from a shallow watercourse that had dried out. Three of them contained plant remains that might indicate more information could be obtained from a palynological analysis. The residue from sample II in Core 3.1 had many large "hairy" seed-heads that may be of a primitive wheat, or the like.

6.4.11 *Further Work*

6.4.12 No attempt has been made here to put these initial results of the microfaunal assessment into the context of what is known of the general environmental sequence of the Pevensey and Willingdon Levels. Much is known of parts of this, especially through multidisciplinary work on the famous Shinewater Trackway and Platform sites at Hampden Park, northeast Eastbourne (see Jennings *et al.,* 2003, for a review). The work of Jennings & Smyth (for example their 1987 and 1990 publications) also gives information about the Holocene evolution of the East Sussex coast, but the Polegate area is rather peripheral to all this and is too far to the southwest to have warranted previous study, as far as I am aware.

6.4.13 Once other assessment work has been completed on the Shepham Farm site from other groups to be examined here (e.g. plants, pollen, and perhaps molluscs) and radiocarbon dates are available from the main reference sequence of Core 1.2, then that is the best time to compare our site with what is known of the Pevensey Levels in general.

6.5 The Environmental Sample by Karine Le Hégarat

6.5.1 A single one litre bulk soil sample (<01>) was taken from a charcoal rich layer [2/007] during archaeological work at the site to confirm the on-site observation of environmental remains and to establish the presence of small artefact remains. The sample was processed in a flotation tank and the residue and flot were retained on 500µm and 250µm meshes and air dried. The residue was passed through graded sieves (8, 4 and 2mm) and each fraction sorted for environmental and artefact remains. The flot was scanned under a stereozoom microscope at x7-45 magnifications. An overview of the sample contents is presented in Table 13.

6.5.2 The sample produced a large quantity of charcoal. Although charcoal was infrequent in the small flot charcoal fragments were prominent in the residue. The assemblage contained large pieces >60mm in size, though small fragments were also recorded and on the whole these remains were relatively well preserved. No other environmental remains were evident in the sample and no artefacts such as industrial debris were recorded in this deposit.

					Flot								Residue			
Sample Number	**Context**	**Context / deposit type**	**Sample Volume litres**	**Sub-Sample Volume litres**	**Weight g**	**Flot volume ml**	**Volume scanned**	**Uncharred %**	**Sediment %**	**Charcoal >4mm**	**Charcoal <4mm**	**Charcoal <2mm**	**Charcoal >4mm**	**Weight (g)**	**Charcoal <4mm**	**Weight (g)**
1	4/003	Deposit	1	1	2	2	2	2	-	**	**	***	***	176	***	46

Table 13: Sample quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and weight in grams

7.0 DISCUSSION AND CONCLUSIONS

7.1 The Palaeoenvironmental Potential of the Investigated Locations

7.1.1 The application of coring has provided a rapid and effective way to evaluate the potential for deeply buried archaeology and palaeoenvironmental potential at each of the five investigated locations. The methodology does have limitations, with the nature of contacts between sedimentary units and sedimentary structure being poorly preserved. However, it has been possible to make the following statements on potential.

7.1.2 Core 1:

- Sited mid-floodplain indicates a well-developed and important alluvial sequence. We have determined that within a 3m sequence a succession from fully marine to intertidal to freshwater conditions has been established.

- Associated with this sequence is a rich palaeoenvironmental signature preserving, pollen, diatoms, foraminifera, plant macrofossils, insect and earth worm granules. The sequence also included an organic peat deposits which may correlate with the Willingdon peat encountered at Shinewater and Arkwright Road. This locales preserves a regionally important palaeoenvironmental sequence which should be investigated across the footprint of the proposed development.

- The sequence offers an exceptional detailed record of the complex history of landscape development in the Eastbourne area, see below.

7.1.3 Core 2:

- Sited at the edge of the floodplain and preserving weathered alluvium. This site offers limited palaeoenvironmental potential but, given its relative proximity to Core 1 and flood plain-edge setting should be subjected to limited further investigation.

7.1.4 Cores 3 -5

- These were all sited on relatively high ground away from both the floodplain and the floodplain edge settings. They preserved sequences of weathered head deposits and solid geology offering no contexts for palaeoenvironmental preservation.

7.2 The Shepham Farm Floodplain in Context

7.2.1 The significance of the site comes from its topographic position occupying the south-western margins of the Glynleigh Level, part of the East Sussex Coastal marshes landform. These marshes formed as a result of erosion of low-lying and relatively soft geologies of the Cretaceous Weald. Where exposed along parts of the present day Sussex Coast, fluvial drainage patterns established during cold stages of the Pleistocene developed localised channels of deep valley incision and broader floodplains. These became quickly flooded during the early Holocene marine transgression leading to a series of large and significant coastal inlets along the Sussex coast.

7.2.2 Studies of the these inlets suggest that they became active intertidal environments throughout the early-Mid Holocene transition beginning to effectively silt-up and become marshland with peat development at their fringes by the Middle Bronze Age. The marshes still contained significant bodies of intertidal lagoon open to the sea until the medieval period, most appear to have finally been sealed from the sea during a series of storms, possibly signalling the end of the Holocene climatic optimum in the 13th century.

7.2.3 Notable palaeoenvironmental signatures in the area include Shinewater and Arkwright Road. Both Shinewater and Awkright Road lie to the south of the Shepham Farm site in a separate valley, divided from the Glynleigh Level by a ridge of Weald Clay. However both have broadly similar sequences spanning intertidal conditions to peat development (Willingdon Peat), at Akwright Road of possible Bronze age date (Smyth and Jennings 1987; Peyre 2011; GeoDine 2011; ESCC 2011) and at Shinewater associated with excellently preserved organic archaeology (Greatorex 1995a, 1995b, 1996a, 1996b, 1998, 2003,1995,1995; Hinton, P. 1998; Jennings et al. 2003).

7.2.4 While the organic deposits identified at Shepham Farm cannot yet be directly correlated with the Willingdon Peat, the correlation is considered possible and necessary to establish definitively through further fieldwork, analysis and dating. The apparent progression through the Core 12 sequence form open to closed conditions suggests either an early-,id Holocene succession, and thus an earlier sequence to that represented by the Willingdon Peat or the development of secondary forest following a phase of clearance. Each possibility is of interest and require further investigation.

7.2.5 The Shepham Farms sequence provided indication of a regionally important sequence which may greatly increase our understanding of the nature and timing of landform development in the East Sussex Coastal marshes. Preserved at the locale is a sequence which spans fully marine, intertidal and freshwater/terrestrial edge conditions. The sequence preserves a variety of palaeoenvironmental indicators and deposits suitable for dating and should be considered a high priority for further investigation. The nearby Core 2 location seems to offer minimal potential but provides a terrestrial proxy and possible interface zone warranting limited further investigation.

7.3 The Archaeological Evaluation

7.3.1 The evaluation revealed a typical stratigraphic sequence of 0.25m – 0.30m of ploughsoil overlying, in places, 0.25m of subsoil, overlying the natural alluvial or Weald Clay substrate. There was no evidence that the natural horizon had been truncated.

7.3.2 The evaluation succeeded in its general aim of assessing whether archaeological remains existed on the site: No archaeological features were encountered and no finds were retrieved.

7.3.3 The burnt deposit encountered within Trench 4 is thought to be the result of a bonfire or vegetation clearance. This was not associated with any artefacts and is currently undated, however, the charcoal assemblage from the bulk sample is sufficiently large that it is likely to yield taxa suitable for radiocarbon dating.

7.4 Recommendations for Further Work

7.4.1 The results of the geoarchaeological survey indicate the presence of alluvial deposits of regional geomorphological and archaeological significance at the locale of BH1. In addition there are indications of alluvial interface potential at BH2. Ahead of any further development at either of these locales, each should be subject to the following geoarchaeological / archaeological assessments:

- The undertaking of a further cable percussion borehole at each locale for the recovery of sleeved U100 cores through the entire alluvial sequence to bedrock. These sleeved cores will provide further dating and palaeoenvironmental evidence necessary to undertake a full profile at the site.
- The excavation of geoarchaeological test pits to 2.5m depth at each locale should be undertaken to allow for bulk sampling and identification of buried archaeological features/interface zones.
- At BH1 this test pit should be 4x4m in extent and stepped to allow access, to establish the precise stratigraphic relationship between the sediment sequence and to determine is irregularities in the palaeoenvironmental sequence may relate to the impact of human or fluvial activity.
- At locale BH2 the trench should be 10x1m in extent and excavated across the floodplain edge to determine if there are any deeper terrestrial/alluvial interfaces zones at this locale.
- Contingencies should be allowed for further archaeological excavation should features or structures be encountered.
- A contingency should be allowed for hand coring to determine the limits of any alluvial deposits likely to be impacted upon should an interface a zone be established.

7.4.2 Beyond these areas, the machine stripping of the site to construction level should be subject to a programme of archaeological watching brief.

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Appendix 1: Pollen-stratigraphic assessment of window core samples 1, 2, 3 & 4, Shepham Farm, Polegate

Sample number	Sediment description	Main pollen taxa			Concentration 0-5	Concentration grains/cm^3	Preservation 0- 5	Microcharcoal 0 - 5
		Latin name	Common name	Number				
Core 1.1								
IV	Light yellow brown silt sand	-	-	-	0	-	-	0
VI	Mottled grey/yellow clay	-	-	-	0	-	-	0
VII	Dark brown organic clay	*Pinus* *Quercus* *Alnus* *Tilia* *Betula* *Corylus* type *Hedera* Poaceae Lactuceae *Pteropsida* *Polypodium* type *Sphagnum*	pine oak alder lime birch e.g. hazel ivy grass family dandelion family undifferentiated fern spore polypody fern moss	1 8 6 3 1 6 1 4 1 4 1 1	5	38016	4	1
IX	Grey organic clay	*Pinus* *Quercus* *Betula* *Alnus* *Corylus* type *Hedera* Poaceae Poaceae >40µm Cyperaceae *Chenopodium* type *cf Lysmachia* type Asteraceae Unknown grain *Sphagnum* *Pteropsida*	pine oak birch alder e.g. hazel ivy grass family large grass sedge family goosefoot family cf loosestrife daisy family - moss undifferentiated	2 5 1 2 3 1 4 1 2 2 1 1 5 1 1	5	73581	4	0

			fern spore					
X	Dark grey organic clay	*Alnus* *Quercus* *Betula* *Corylus* type *Hedera* Poaceae Asteraceae Unknown grain *Pteropsida*	alder oak birch e.g. hazel ivy grass family daisy family - undifferentiated fern spore	1 4 1 1 1 21 1 3 2	5	91731	4	0
XI	Organic bed	*Quercus* *Betula* *Corylus* type Rosaceae *Hedera* Poaceae Poaceae >40µm Cyperaceae Asteraceae *Chenopodium* type *Ranunculus* type Unknown grain	oak birch e.g. hazel rose family ivy grass family large grass sedge family daisy family goosefoot family buttercup -	2 1 1 2 1 11 2 1 1 2 1 4	5	80612	4	0
XIII	Grey silty clay	*Pinus* *Quercus* *cf Ulmus* *Corylus* type Poaceae	pine oak cf elm e.g. hazel grass family	11 1 1 2 4	3-4	5212	3	1
XV	Light grey fine sand	-	-	-	0	-	-	0
Core 2.1								
IV	Grey with orange laminations (solid)	*Tilia* *cf Polypodium vulgare* *Pteropsida*	lime cf polypody fern undifferentiated fern spore	7 33 72	1	1127	3	0
Core 3.1								
II	Grey and orange Cretaceous sand	*Tilia* *cf Corylus* type	lime e.g. hazel	1 2	1	125088	2	0

		Indeterminate spore *cf Polypodium vulgare*	- cf polypody fern	2 3				
Core 4.1								
I	Blue grey alluvium	*Pinus* Indeterminate spore	pine -	9 5	2	2144	2	0
II	Laminated grey yellow sand (solid)	*Pinus* Indeterminate spore	pine -	5 4	1	939	3	1

Key:
Concentration: 0 = 0 grains; 1 =1-75 grains, 2 = 76-150 grains, 3 = 151-225 grains, 4 = 226-300, 5 = 300+ grains per slide
Preservation: 0 = none, 1 = very poor, 2 = poor, 3 = moderate, 4 = good, 5 = excellent
Charcoal: 0 = none, 1 = negligible, 2 = occasional, 3 = moderate, 4 = frequent, 5 = abundant

Appendix 2: Ostracod Tables

ORGANIC REMAINS

	CORE 1.2							CORE 1.3
SAMPLE	**IV**	**VI**	**VII**	**IX**	**X**	**XII**	**XIII**	**XV**
iron mineral/tubes	x	x						
charcoal	x							
plant debris+ seeds		x	x	x	x	x	x	x
insect remains		x	x	x	x	x	x	
earthworm granules		x	x	x		x	x	
cladoceran ephippia		x	x	x	x	x	x	
charophyte oogonia		x	x	x	x	x		
freshwater ostracods		x	x	x	x	x	x	
testate amoebae		x	x	x	x			
brackish foraminifera		x	x	x	x	x	x	
molluscs					x	x	x	
***Bithynia* opercula**						x	x	
slug plates						x	x	
marine/outer estuarine ostracods						x	x	
marine/outer estuarine foraminifera						x	x	
fish/amphibian remains						x		

Ecology	*Weathered; semiterrestrial surface*	*Mainly a freshwater habitat but still within reach of highest tides*	*Estuary open to strong tidal surges*	*?Freshwater; riverine*

FRESHWATER OSTRACODS

	CORE 1.2							CORE 1.3
SAMPLE	IV	VI	VII	IX	X	XII	XIII	XV
Candona neglecta		xx	xx	xx	xx	x	x	
Cypria ophtalmica		x	xx	xx	x			
Ilyocypris sp.		x	o	x	x			
Cyclocypris sp.			o					

BRACKISH OSTRACODS

	CORE 1.2							CORE 1.3
SAMPLE	IV	VI	VII	IX	X	XII	XIII	XV
Leptocythere lacertosa						x		
Leptocythere porcellanea						x		
Leptocythere psammophila						x		

BRACKISH FORAMINIFERA

	CORE 1.2							CORE 1.3
SAMPLE	IV	VI	VII	IX	X	XII	XIII	XV
Haynesina germanica		x	xx	xx	x	xxx	xx	
Elphidium williamsoni		o	x	o	o	xx	x	
Ammonia sp. (brackish)			x	x		xx	x	

MARINE/OUTER ESTUARINE OSTRACODS

	CORE 1.2							CORE 1.3
SAMPLE	IV	VI	VII	IX	X	XII	XIII	XV
Hirschmannia viridis						xx	x	
paradoxostomatids						x		
Loxoconcha rhomboidea						x	x	
Heterocythereis albomaculata						x	x	
Cytheropteron spp.						x	x	
Semicytherura spp.						x	x	
Bonnyannella robertsoni						x	x	
Hemicytherura cellulosa						x	o	
Leptocythere pellucida						x		
Hemicythere villosa						x	o	
Pontocythere elongata						x		
Palmoconcha laevata						o		
Anchistrocheles acerosa						o		

MARINE/OUTER ESTUARINE FORAMINIFERA

	CORE 1.2							CORE 1.3
SAMPLE	IV	VI	VII	IX	X	XII	XIII	XV
miliolids						xx		
Ammonia batavus						x		
Elphidium margaritaceum						x	x	
lagenids						x	x	
discorbids						x		
Cibicides lobatulus						x		

Organic remains are listed on a presence (x)/absence basis only
Ostracods and foraminifera are listed: o – one specimen: x – several specimens; xx – common; xxx – abundant

Freshwater ostracods of estuaries and coastal pools
Brackish ostracods of tidal flats and creeks
Calcareous foraminifera of low-mid saltmarsh and tidal flats
Essentially marine species, but can penetrate outer estuaries
Shelf-living species, brought in by tidal surges

HER Summary Form

Site Code	SWF 12					
Identification Name and Address	Shepham Wind-farm, Polegate					
County, District &/or Borough	Eastbourne, East Sussex					
OS Grid Refs.	TQ 559940 105830					
Geology	Alluvial Clay, Weald Clay, Head Deposits					
Arch. South-East Project Number	5294					
Type of Fieldwork	Eval. X	Excav.	Watching Brief	Standing Structure	Survey	Other
Type of Site	Green Field X	Shallow Urban	Deep Urban	Other		
Dates of Fieldwork	Eval. 6th-7th Feb 2012	Excav.	WB.	Other		
Sponsor/Client	Regeneco					
Project Manager	Jon Sygrave					
Project Supervisor	Andrew Margetts					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Other		

Archaeology South-East was commissioned by Regeneco to undertake a programme of geo-archaeological and archaeological fieldwork in advance of the consideration of a planning application for a proposed wind farm at Shepham, Polegate, East Sussex. The site is centred on National Grid Reference (NGR) 559940 105830.

The geo-archaeological sequence revealed by the borehole survey at Shepham Farm provides an indication of a regionally important sequence that may greatly increase our understanding of the nature and timing of landform development in the East Sussex Coastal marshes. Preserved at the locale is a sequence which spans fully marine, intertidal and freshwater/terrestrial edge conditions. The sequence preserves a variety of palaeoenvironmental indicators and deposits suitable for dating and should be considered a high priority for further investigation.

The associated archaeological evaluation encountered no significant features or finds apart from an area of undated burning in Trench 4.

OASIS FORM

OASIS ID: archaeol6-121397

Project details

Project name	A Geo-Archaeological Borehole Survey and Archaeological Evaluation at the Proposed Shepham Windfarm site, Polegate, Eas
Short description of the project	Archaeology South-East was commissioned by Regeneco to undertake a programme of geo-archaeological and archaeological fieldwork in advance of the consideration of a planning application for a proposed wind farm at Shepham, Polegate, East Sussex. The site is centred on National Grid Reference (NGR) 559940 105830. The geo-archaeological sequence revealed by the borehole survey at Shepham Farm provides an indication of a regionally important sequence that may greatly increase our understanding of the nature and timing of landform development in the East Sussex Coastal marshes. Preserved at the locale is a sequence which spans fully marine, intertidal and freshwater/terrestrial edge conditions. The sequence preserves a variety of palaeoenvironmental indicators and deposits suitable for dating and should be considered a high priority for further investigation. The associated archaeological evaluation encountered no significant features or finds apart from an area of undated burning in Trench 4.
Project dates	Start: 06-02-2012 End: 07-02-2012
Previous/future work	Yes / Not known
Any associated project reference codes	SWF12 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 2 - Operations to a depth less than 0.25m
Monument type	0 None
Significant Finds	0 None
Methods & techniques	'Augering','Grab-sampling','Targeted Trenches'
Development type	Wind farm developments
Prompt	Direction from Local Planning Authority - PPS

Position in the planning process	Pre-application

Project location

Country	England
Site location	EAST SUSSEX EASTBOURNE EASTBOURNE Shepham WindFarm
Postcode	BN26 6XX
Study area	1390.00 Square metres
Site coordinates	TQ 5994 0583 50.8292882580 0.2713511776 50 49 45 N 000 16 16 E Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 1.00m Max: 5.00m

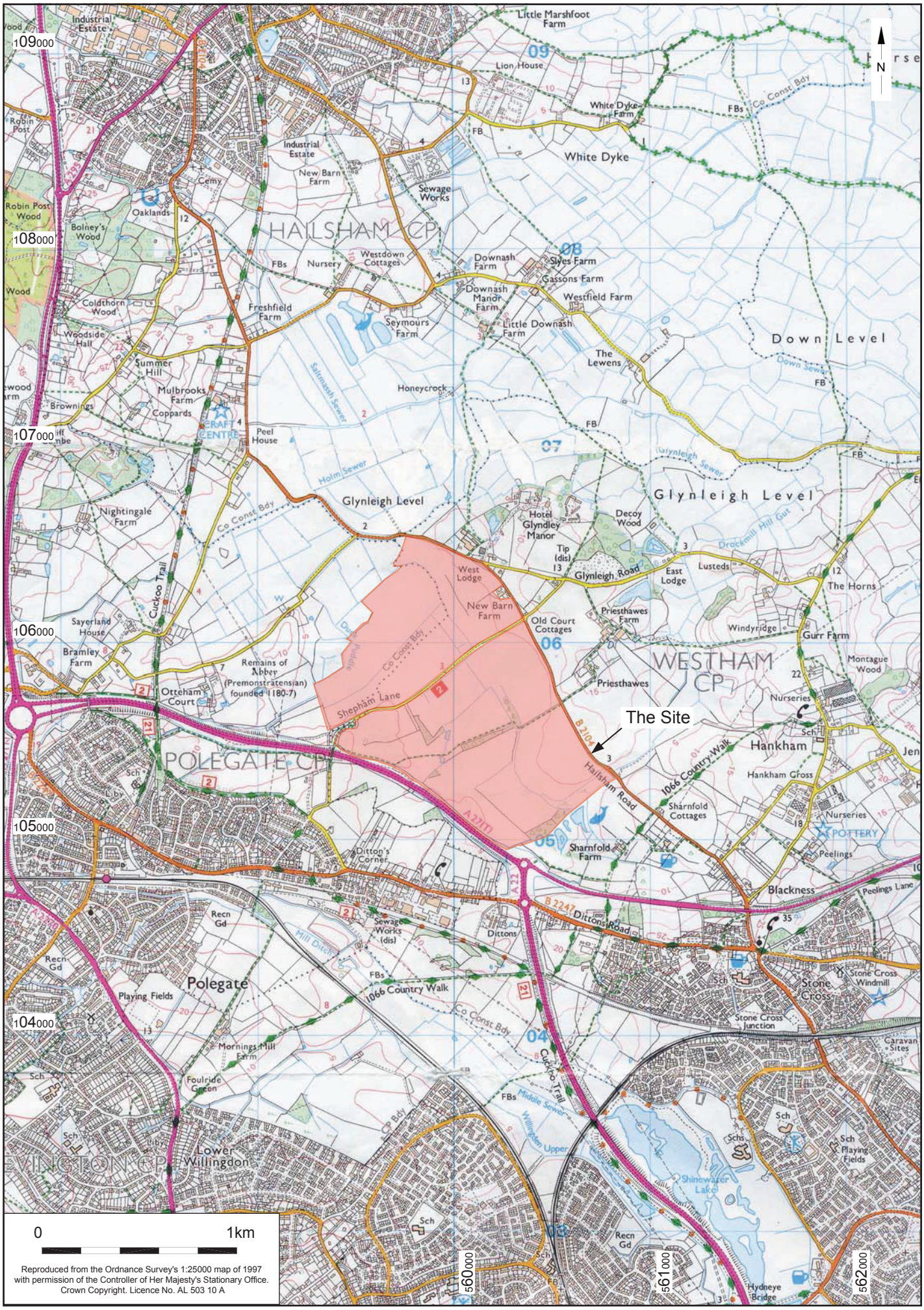
Project creators

Name of Organisation	Archaeology South East
Project brief originator	East Sussex County Council
Project design originator	Archaeology South-East
Project director/manager	Jon Sygrave
Project supervisor	Andrew Margetts
Project supervisor	Matt Pope
Type of sponsor/funding body	client
Name of sponsor/funding body	Regeneco

Project archives	
Physical Archive Exists?	No
Digital Archive Exists?	No
Paper Archive Exists?	No

Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	A Geo-Archaeological Borehole Survey and Archaeological Evaluation at the Proposed Shepham Windfarm site, Polegate, East Sussex
Author(s)/Editor(s)	Pope, M.
Author(s)/Editor(s)	Margetts, A.
Other bibliographic details	Rep no: 2012046
Date	2012
Issuer or publisher	Archaeology SE
Place of issue or publication	Portslade
Description	Geoarch and eval rep

Entered by	andy margetts (andrew_margetts@tiscali.co.uk)
Entered on	20 March 2012



© Archaeology South-East		Shepham Windfarm	Fig. 1
Project Ref: 5294	March 2012	Site location	
Report Ref: 2012046	Drawn by: JLR		

© Archaeology South-East		Shepham Windfarm	Fig. 2
Project Ref: 5294	March 2012	Trench and borehole location	
Report Ref: 2012046	Drawn by: JLR		

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