



BUTLINS HOTEL A, BOGNOR REGIS, WEST SUSSEX

Desk-Based Assessment

for

PWP Architects

November 2010





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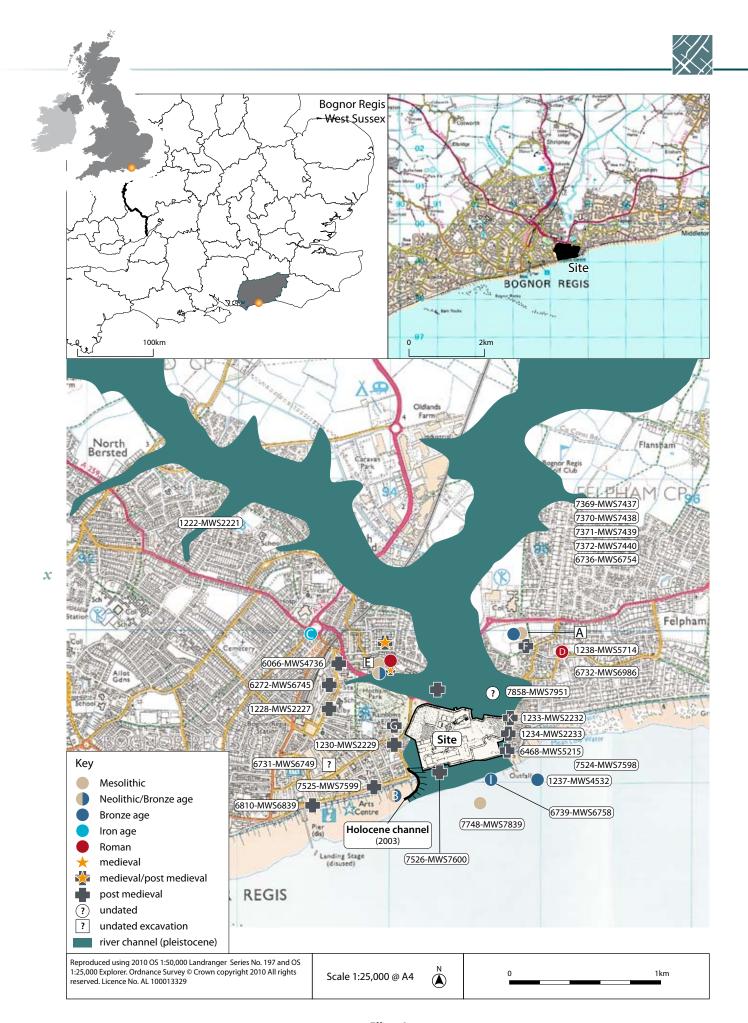
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The project was managed for Headland Archaeology by Andy Boucher. The report was written by Andy Boucher and Martin Bates. The illustrations were created by Martin Bates, David Doyle, Simon Mayes & Caroline Norrman.



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Desk-Based Assessment

A reassessment has been made of previous documentary work on the Butlins, Bognor Regis site following proposals to build a new hotel there. The new hotel and associated carparks lie to the west of the Holocene Aldingbourne Rife and straddle the edge of the earlier Pleistocene channel. Previous work within the channel has demonstrated that unlike other water courses along the south coast, the Aldingbourne Rife became a marine environment very early in its life, other channels being fresh water. Desk-based work has identified a focus of past occupation along the edges of the channel including Bronze Age activity immediately to the south of the site of the current proposals.

Whilst there is little likelihood of occupation within the Pleistocene channel there is a good chance for occupation debris to find its way into the silts and a potential for high levels of preservation of organic material. More significantly, the location of the current proposals on the edge of this channel could be viewed as having a high potential for uncovering occupation sites from a wide range of periods.

1. INTRODUCTION

A planning application is due to be submitted to erect a new hotel on Butlin's Bognor Regis site. Over the past decade a considerable amount of work has been undertaken on the site and reports produced for these. This report has been commissioned to review an existing desk-based assessment of the Butlins site, and place the new proposals within their heritage context. It will act as supporting evidence for the planning application.

Whilst 'the site' includes the proposed new structure and the area within the red line itself a wider study area was used to obtain background information relating to the surrounding landscape. This report uses information originally obtained for a previous study on the site of the Shoreline Hotel (100m to the south) but it has also been updated and added to using the results of palaeo-ecological fieldwork associated with that earlier development, and new research to ensure that up-to-date information is used in drawing any conclusions or recommendations from the work.

The Site (SZ 944 992, Illus 1) lies on the eastern edge of the built-up area of Bognor Regis and part of it lay within the adjoining parish of Felpham until late 20th century boundary changes.

Stages of archaeological work undertaken on the site to date include the following:

- A desk-based assessment in May 2004 (Oakey and Pine 2004)
- A borehole survey in June 2004 (Pine 2004)
- Palaeoenvironmental study of samples from the site 2004-5 (Bates et al. 2005)
- Desk based assessment (Boucher 2008)
- Palaeoenvironmental assessment 2008-10 (Bates and Timpany 2010)

2. PLANNING POLICIES

The over bridging national policy is PPS5 introduced in 2010. This states that the significance of Heritage Assets should be determined, and the impact of development on these is assessed.

The county structure plan 2001–2016 includes **Policy CH11**, which relates specifically to archaeology. The relevant extract states that:

'Developments should not be permitted unless the archaeological heritage of West Sussex is protected and preserved and, where possible, opportunities are taken to



promote the educational and amenity value of sites and areas (historic landscapes)'

(West Sussex County Council, 67).

Also relevant is paragraph 317, which explains

'Archaeological remains are a finite, non-renewable resource and can contain irreplaceable information about our past. They are vulnerable to damage and destruction and, therefore, there is a need to preserve and record important archaeological remains' (ibid., 68).

The requested response is outlined in paragraph 319, as follows

'Where development may affect known archaeological remains, a site of archaeological potential or a site which may contain archaeological remains, the developer should be expected to commission an archaeological field evaluation by a professional archaeological contractor. If preservation in situ is not possible, a full investigation should be required, with proper recording, the preservation of finds, and publication. Where possible, conflicts between land use and the preservation of known archaeological sites should be resolved by management agreements' (ibid., 68).

Arun District Local Plan includes **POLICY AREA 17 Sites of Archaeological Interest**. This includes the following relevant sections

'Permission will not be granted for development that would be harmful to the significant archaeological interest of a site. Where ...

(ii) ... physical preservation of remains in situ is not justified, conditions may be attached to any permission granted that development will not take place until provision has been made by the developer for a programme of archaeological investigation and recording. The programme will be carried out prior to the commencement of the redevelopment;

and

(iii) whenever practicable, opportunities should be taken for the enhancement and interpretation of archaeological remains left in situ' (Arun District Council 48).

The explanation for this policy includes

'2.30 Archaeological remains are a fragile and finite resource. The majority of sites are not scheduled ancient monuments and must rely on the sympathetic application of planning and management policies for their survival and protection. Archaeological excavation for the purposes of preservation by record is a second-best option after preservation in situ, as it usually results in the total

destruction of evidence from which future techniques might have been able to extract more information.

- 2.31 The archaeological assessment ... will take the form of an initial evaluation of the probable extent and importance of any remains and how the design of the development could avoid or minimise disturbance to them. The assessment ... may take the form of a deskbased evaluation. Where this indicates that important archaeological remains may exist, further assessment in the form of a field evaluation will be required ... The programme required ... will be carried out according to a project brief agreed with the Council, and may include provision for the preservation of finds and the publication of results. Any assessment, evaluation or excavation required by this Policy will be carried out only by a professionally qualified archaeological organisation or consultant.
- 2.32 Appropriate management of archaeological remains is essential to ensure they survive in good condition and are not needlessly or thoughtlessly destroyed. Where nationally important archaeological remains, whether scheduled or not, and their settings are affected by proposed developments, there should be a presumption in favour of their physical preservation. In all cases, an interpretation of the site and findings, by a professional archaeological contractor, is to be carried out. To preserve the archaeological remains and secure their preservation, a programme of enhancements should be prepared. Where possible, conflicts between land use and the preservation of known archaeological sites should be resolved by management agreements' (ibid., 48).

3. METHODOLOGY

The methodology for the research is described as follows.

3.1 Aims and objectives

The main aims of the desk-based assessment were:

- 1. To provide an assessment based on knowledge relating to the site and its history.
- 2. To establish the further palaeoenvironmental significance of any deposits buried beneath the site.

The main objectives were:

- 1. To reassess the information collated for previous desk top assessments.
- 2. Integrate the results of recent palaeoenvironmental work.

3.2 Methods

The project work is based on the site (the area within the proposed 'red line' for the application), and a study area (a surrounding buffer 1km wide).

4.2.1 Documentary Research

During the 2004 research the following repositories were visited and consulted:

- West Sussex Record Office, Chichester
- West Sussex Historic Environment Record, West Sussex County Council, Chichester
- Local History Collection, Chichester Library
- Reference Section, Littlehampton Library
- Littlehampton Museum.

The previous report was assessed and an approach agreed with John Mills, archaeological advisor for the local planning authority. The view was taken that much of the previous research did not need duplicating. It was determined that as a minimum a desk-based assessment should be submitted with the application.

On the basis of the results of the previous work undertaken by Archaeological Investigations Ltd it was determined that there was no need to undertake a site visit as archaeological deposits are deeply buried beneath the area of the site below a thick band of modern made ground, and even deep features are unlikely to have caused any damage to underlying palaeosedimentary sequences within the channel. Also recent landscaping and construction on the Butlins site is likely to have obscured evidence nearer the edge of the channel.

4.2.2 Specialist input

On previous occasions the planning authority's scoping statement has stated that: 'the DBA should include a geoarchaeological assessment - indeed this is likely to be the most important element of the report'. The likely palaeo-environmental potential of the deposits within the water channel previously produced by Dr Martin Bates (who undertook the previous analysis on the site) has been retained within this document.

3.3 Sources

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The following statement from the 2004 report relates to those sources consulted or considered at that time.

4.4.1 Cartographic

Historic and recent maps consulted are listed below (8.1). By working backwards from the most recent and

most accurate surveys to more primitive and less reliable documents (map regression) the study was able to identify changes in land use, drainage and coastal conIllusuration in historic times. In reproducing map extracts to accompany this assessment, an attempt has been made to overlay the proposed footprint of the development. It should be noted that the older the map the less reliance can be put upon the accuracy of the overlay.

4.4.2 Documentary

The Site proved to have been largely open land until 1960 and relevant original documents proved sparse. The 1842 Tithe Apportionment for South Bersted provided information on land ownership and usage at that time, but otherwise information was derived from secondary printed books and reports. Most of the information had been previously collated in the various reports produced by Wessex Archaeology on their work associated with Felpham Sea Defences.

4.4.3 Aerial Survey

Aerial photographs often show changes in vegetation growth and soil marks created by buried archaeological or geological features. However, this technique is most effective on land which is subject to arable agriculture and the land in question seems to have been either under grass or hard standing for all of the period in which aerial photography has been used as a technique. Additionally it has been subject to alluvial deposition which can mask archaeological features.

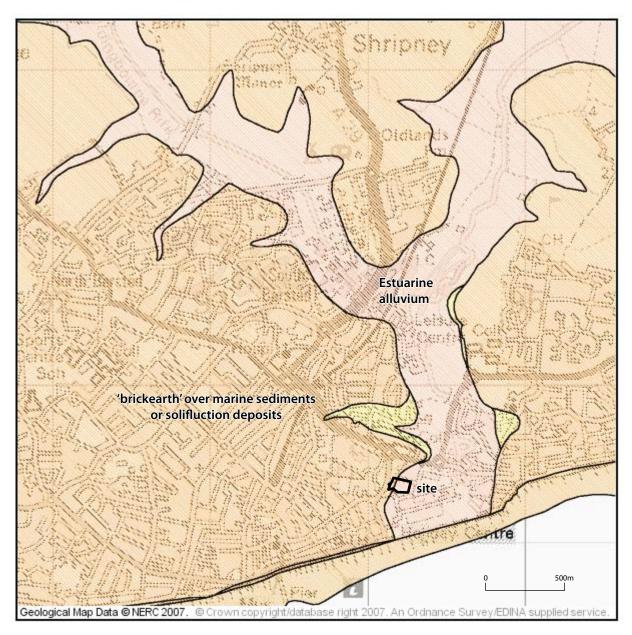
Map coverage of the Site is good and it was considered that aerial photographs would add little to the study of either its recorded or earlier history. Consequently, this line of enquiry was not pursued.

4. THE HISTORIC AND ARCHAEOLOGICAL RESOURCE

The main focus of archaeological research until the last decade of the 20th century took place on the shoreline within the alluvium filling the former channel. Other than that most terrestrial archaeological interventions within the study area comprised observations of groundworks. Nineteenth-century observations of, for example, trees and stumps appear in geological studies (Dixon 1850, Dixon and Jones 1878), with Venables carrying out more work on the 'submerged forest' in the middle decades of the 20th century (Venables 1931, 1964). Unfortunately most of his records have been lost (Wessex Archaeology 2003, 3), as have Mesolithic implements noted by Wymer in Bognor Museum (Wymer 1977, 294).

More recently Wessex Archaeology carried out a series of archaeological investigations and observations in association with the renewal of sea defences at Bognor





Illus 2Site location plan and local bedrock and superficial geology

Regis (Wessex Archaeology 2003) and Felpham (Wessex Archaeology 1999b). Sea defence renewal ran from Gloucester Road, Bognor Regis in the west to Outram Road, Felpham to the east and was centred on SZ 49460 09903, on the beach c.300m to the south-west of the Site. The archaeological response involved desk-based study, survey of archaeological deposits exposed by violent storms in January 1998, limited excavation, borehole survey and a watching brief during construction of new groynes and the construction of a buried rock toe to protect the base of the existing sea wall. The report on the work also included the results of observations and research carried out on the alluvium-filled channel of the Aldingbourne Rife since 1969 by David Bone, a local geologist (Wessex Archaeology 2003, 1). A notable result was that good

survival of organic material in significant archaeological contexts allowed an attempt at dendrochronology (treering dating), radiocarbon dating and pollen analysis, whilst animal bone and shells also survived.

A separate watching brief exercise was carried out for Felpham Sea Defences, centred on SZ 955 992 (c.1km east of the Site), which observed works on the renewal of groynes. No archaeological deposits were recorded and beach deposits directly overlay Reading Beds and Chalk, the assumption being that the action of the tides had removed any remains of topsoil and subsoil from the former coastal plain (Wessex Archaeology 1999b).

4.1 Geomorphology

Martin Bates

5.1.1 The site and its regional context

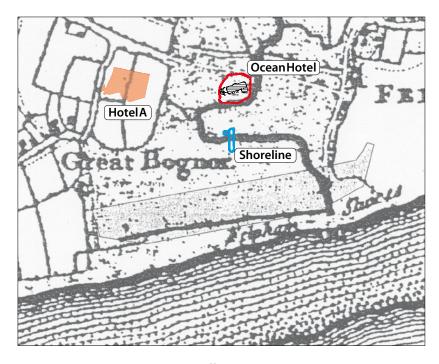
The site of the proposed Butlins Hotel A lies inland of the modern coast at Bognor Regis within an area of low lying ground behind the modern beach at the mouth of Aldingbourne Rife (Illus 2). Bedrock geologies consisting of Cretaceous Chalk beneath Tertiary clays and silts exist within the area (Gallois, 1965).

The Aldingbourne Rife forms a broad channel like feature narrowing and bifurcating inland (Illus 1). Beneath the surface, Holocene sediment sequences rest within a large channel-like feature (Illus 12) that is incised into the bedrock and cut through older pre-existing

sediments associated with the Pagham Raised Beach (thought to be the youngest known Pleistocene beach on the lower coastal plain) and the brickearth deposits of last cold stage age (Devensian). Previous work at the Shoreline Hotel indicated the presence of made ground and an upper minerogenic sequence showing evidence of disturbance in places above the main body of sediments filling the channel. These deposits consisted of sands and silts typical of Holocene tidal/sub tidal deposition. In some places a thin (c.0.30 metre deep) basal organic silt unit was recorded immediately overlying bedrock (Reading Formation). This basal organic complex was considered comparable to silt-rich organic units previously recorded in lower sections of major river systems such as the Thames (Devoy, 1979) and the Solent (Long et al.. 2000). The basal organic complex represents the onset of sedimentation in the rife coincident with increasing evidence for wetland conditions. Typically this was expected to be of freshwater character initially, becoming increasingly brackish up-profile.

Although a great deal of interest has been generated in the preserved sedimentary sequences and their associated archaeology of the West Sussex Coastal Plain (through the discoveries at Boxgrove (Roberts and Parfitt, 1999)) considerable problems still exist in the study of the channels revealed at low tide around the coast from West Wittering (Reid, 1903) through Earnley (West et al., 1984) and Selsey (West and Sparks, 1960) to Bognor Regis (Bates et al., 2005). Furthermore while some progress has been made towards understanding the Pleistocene channels (Bates et al., 2004, 2007) relatively little is known about the precise timing and infill of the Holocene channel fill sequences that are known to exist

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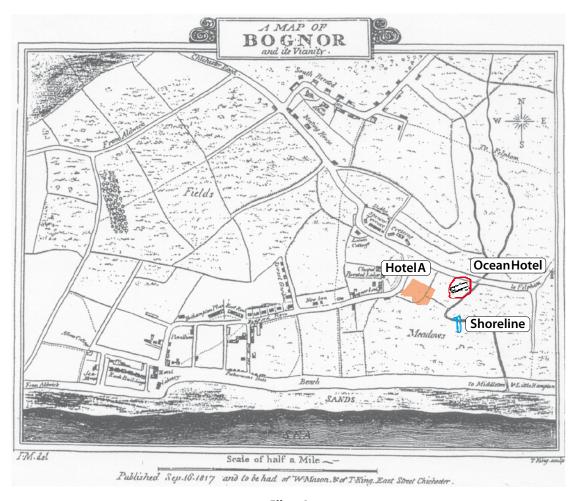
Illus 3Extract from Survey of the County of Sussex, 1778 (Yeakell and Gardner)

around the coastline. This is in part a result of difficulties in accessing those sequences that are visible only at low tides and following periods of major storm activity (that results in the temporary removal from the beach of the overlying modern sediment cover).

Recently however studies have been undertaken in Aldingbourne Rife (Wessex Archaeology, 1999; Allen et al., 2004; Bates et al., 2005; Roberts in progress) and Chichester Harbour (Mills et al., 2007a and b) that have shed some light on Holocene changes in the region). These investigations have demonstrated that in all cases palaeoenvironmental material is often preserved in the sediments and that useful information can be revealed through their study. In particular, questions regarding the regional vegetation development, possible human impact on the landscape, the nature of the flooding of the low lying regions following sea level rise and the timings of these events are recoverable.

Previous work by Bates *et al.* (2005) examining pollen, molluscs, forams and ostracods as well as C14 dating showed that a range of palaeoenvironmental indicators are preserved in the channel. Microfossil evidence was used to suggest that initial sedimentation in the valley involved material being deposited that originated in fully marine conditions (not freshwater as predicted) and that the valley was one dominated by marine waters after flooding. This pattern is atypical of normal transgressive sequences seen in the major river valleys in southern England and a catastrophic explanation was suggested to account for this feature. The timing of the inundation was difficult to determine. The two C14 dates obtained from the sequence were considered suspect due to the





Illus 4Mason and King, 1817

presence of older carbon in the form of lignite in the local bedrocks.

A further borehole was sunk in late 2008 on the site of the Ocean Hotel. This did not yield as complete a sequence of deposits as identified beneath the Shoreline hotel to its south and assessment of the environmental evidence in the deposits determined that better opportunities to understand the sequence wee likely to arise elsewhere within the Butlins site.

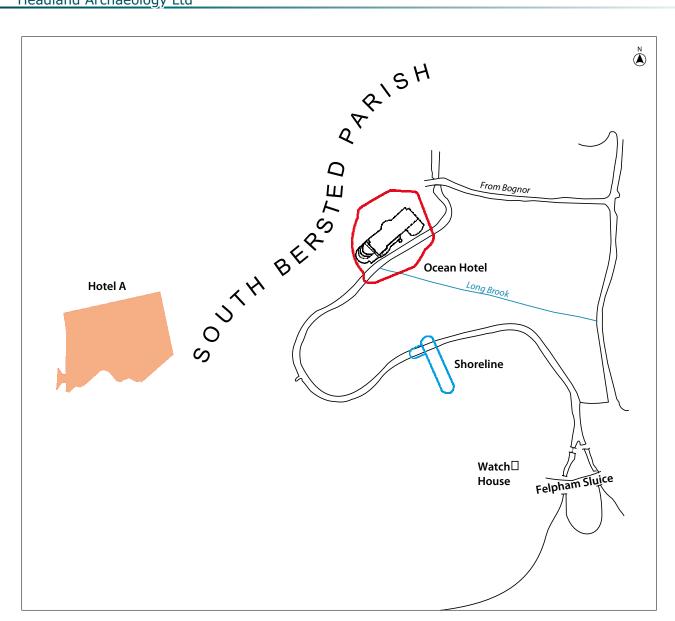
At Chichester Harbour recent palaeoenvironmental work by Mills *et al.*, (2007a and b) is of particular relevance. Cores were taken from a number of locations around the harbour and those thought most likely to provide information on the changing habitats during the Holocene were selected for detailed analysis. For example, cores from Thorney Island preserved the best evidence for Mesolithic environments and landscapes dominated by freshwater streams draining dry, open grassy habitats. Estuarine environments encroaching up the valley systems and into the harbour area were also recorded. Almost all the cores show that the estuarine incursion was associated with erosion and a turbulent depositional environment perhaps as a result of storm

surges rather than a gradual process of water logging of a formerly dry landscape. Pollen from the estuarine habitats documents the changing forestscape and its subsequent reduction by people from the Neolithic onwards. By the Iron Age many cores record a contraction of estuarine environments accompanied by a change from mudflats to a salt marsh environment.

5.1.2 Previous studies relating to the site

Prior to the construction of the Shoreline Hotel two assessments were undertaken of the deposit sequences. The first considered the results of engineering investigations involving three shell and auger boreholes (BH201–03 – Illus 7); and eight test pits which are not deep enough to be worth further consideration. On the basis of these six stratigraphic units were identified within the study area. From earliest to latest:

- Bedrock A stiff fissured grey sandy clay overlying chalk at depth. (Cretaceous Chalk overlain by Reading Beds);
- Lower Minerogenics A dark-grey sandy clay with some shell fragments increasing in courseness and sand



Illus 5Extract from plan of Sparkes brothers' farm, 1824

content with depth (some gravel in BH 201). Plant fragments were noted in the upper part of this unit in BH202;

- 3. **Sands** Loose grey clayey sand with some organic material and shell fragments;
- 4. **Peat** Peat is only present in one borehole (201)
- 5. **Upper Minerogenics** Sandy silt with occasional gravel clasts (flint and chalk) and some organic matter;

6. Made ground

A further study by Bates *et al.* (2005) undertook a detailed palaeoenvironmental analysis of samples recovered from boreholes drilled specifically for that purpose (BH1–4, Illus 7). This study simplified the sequence as follows (Pine 2004):

Bedrock - (Woolwich and Reading beds)

- 1. Basal organic/organic rich silt
- 2. Sands and silt complex (Tidal/intertidal)
- 3. Upper minerogenics (heavily disturbed)
- 4. Made ground.

The study concluded that the deposits analysed were deeper and therefore probably earlier than those looked at by Wessex. Unusually it appears that the sequence commences with silting in a marine environment rather than freshwater. The proposed explanation for this is that the barriers that may have originally protected the end of the rife system from marine incursion were breached during a catastrophic event (big storm?). The radiocarbon dates appear to have been contaminated by earlier material, however, pollen





Illus 6Extract from South Bersted Tithe Map, 1842

suggests that the original deposition commences in the mid Holocene (Mesolithic/Neolithic). An unresolved issue was the comparisons of levels between this exercise and that undertaken by Wessex. Woodland sequences appear to be 2–2.5m deeper than previously reported (one explanation being differential compaction of deposits; another, the rapid deposition of sediments in the rife).

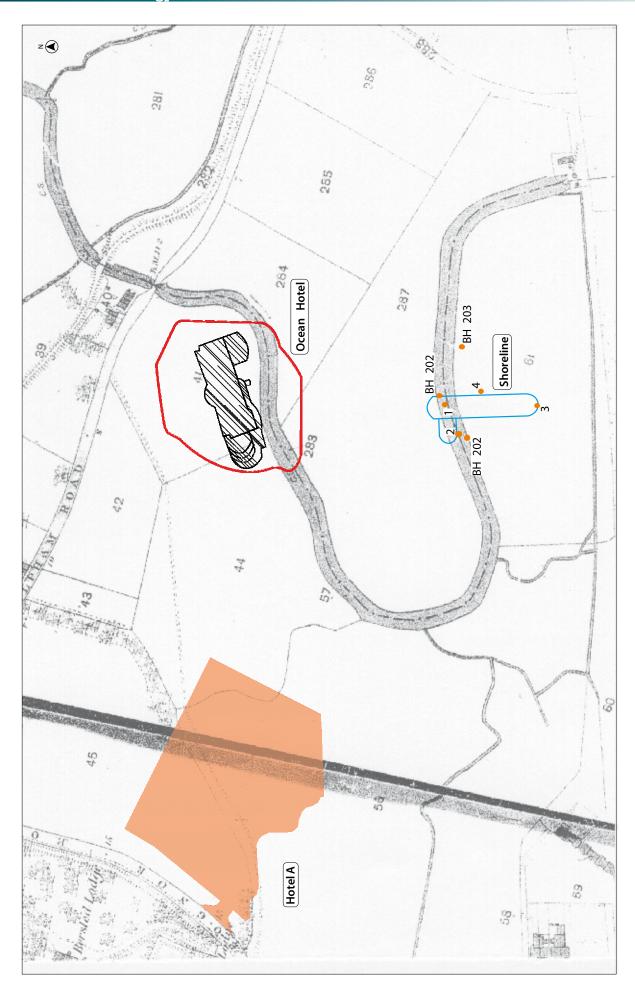
5.1.3 Geoarchaeological significance

Discrepancies exist regarding the levels at which evidence for early woodland has been observed between the studies by Bates *et al.* (2005) and Wessex (2003). At present the only dating evidence derives from the pollen and other means or methods of dating the sediments need to be considered. The site conditions also presented difficulties

in obtaining quality, intact samples (the sediments are very liquid in constituency).

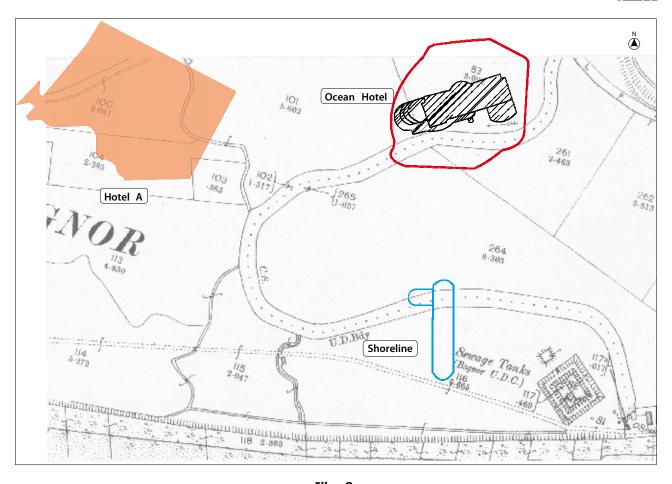
The importance of these previous investigations are three-fold:

- 1. The evidence obtained from the Aldingbourne Rife by Bates *et al.* (2005) provides a picture of changing patterns of local vegetation across the Mesolithic to Bronze Age periods (similar changes were noted by Mills *et al.* [2007a and b] in Chichester Harbour).
- The explanation for initial inundation of the rife and harbour system as a result of catastrophic breeching of an offshore bar system suggests that

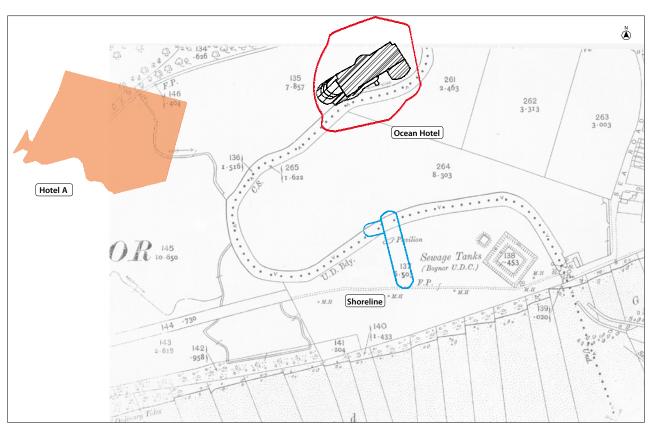


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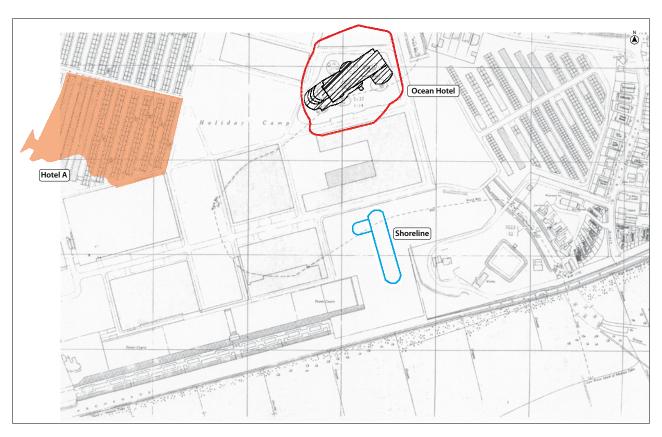


Illus 8Extract from OS Second Edition, 1898



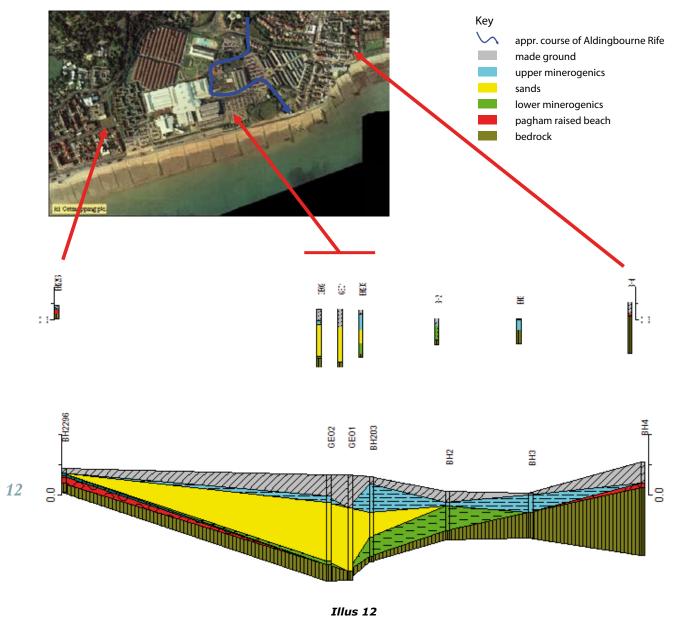
Illus 9 Extract from OS, 1912

Illus 10 Extract from OS, 1932



Illus 11 Extract from OS, 1963





Stratigraphic profiles across site area including geoarchaeological boreholes G101 and Ge02

there is a need to reconsider the palaeogeography of the earlier and middle Holocene environments of the area. Considerable local topographic change has been noted throughout the area since the 19th century and this must now be extrapolated back into the prehistoric past.

3. The breeching hypothesis suggests that inundation will have dramatically altered the nature of resources available in the area and local patterns of accessibility and landuse by contemporary human groups. The possibility that this occurred during the Mesolithic/Neolithic period suggests that changes in the nature of the archaeological record from this period may be expected in response to these changes.

6.1 Prehistoric

The Site lies c.120m west of the current course of the Aldingbourne Rife, but this water course is remnant of a much larger river system that developed during the Devensian glaciation. The Site is located on the western edge of a large channel infilled with alluvium which is at least 9.85m thick by the Rife bridge on the Bognor Regis-Felpham road.

With a rise in sea level in southern England over the last 10,000 years, the sea has gradually invaded the lower portions of the main river valleys with modern beach deposits covering the infilled channel of the Aldingbourne Rife.

Palaeolithic implements have been recovered from 'raised beaches' inland; the oldest and highest (*c*.45m OD) lies between Chichester and Slindon *c*.9 km north of the Site, and contains the internationally significant site of Boxgrove (Roberts and Parfitt 1999). A nearer raised beach (*c*.7km north of the Site) has produced further Palaeolithic implements, but the nearest find spot for this period is Aldwick Road, more than 2km to the east, where an Acheulian hand axe was found (Wessex Archaeology 1999a, 9–10).

Evidence of Mesolithic activity within the vicinity is equally sparse and comprises activity associated with a 'burnt mound' north-west of Felpham church (Hudson 1997, 163, *c*.800m north-east of the Site, A on Illus 1) and Mesolithic implements of unknown provenance recorded in 1977, but since lost (Wymer, 294).

The western side of the ancient channel is marked by a shingle bank outcropping at the sea wall c.100m south of the Site and then turning south-eastwards. Over 27 tree trunks or large branches were recorded in the alluvium of the channel immediately south and east of the bank and their positions and alignments suggest that they had drifted downstream before coming to rest on the bank (Wessex Archaeology 2003, 12). Radiocarbon dating of one of the oak trunks suggested a growth period in the Early Bronze Age, but dendrochronology could not be carried out due to very narrow growth rings. It is suggested that the latter was the result of stressed growing conditions, possibly from waterlogging (ibid., 6). Pollen from a small piece of peat below one of the trunks suggested that it derived from a dry fen carr woodland at a time of critical balance between stasis and slowly rising relative sea levels. Similar environmental remains have been recognised on modern coastal margins around Langstone Harbour and the Isle of Wight and are generally attributed to the Neolithic or Early Bronze Age (ibid., 9). No evidence for human activity in the study area during the Neolithic period has come to light, records being mainly restricted to the South Downs, over 10km to the north (Wessex Archaeology 1999a, 11), but the pollen evidence suggests that in the Neolithic/Bronze Age, the Site was in a dry, low-lying area, which was subsequently exposed to a rise in sea level and saltwater ingression to form a saltmarsh (Wessex Archaeology 2003, 10-12).

The 'burnt mound' at Felpham (A) also contained evidence for Bronze Age activity (Hudson, 163). Other archaeological work on a shingle bank recovered 52 burnt and 193 struck flints also broadly datable to the Bronze Age (c.2400–700 BC). The struck flints may have been *in situ* evidence of a single knapping episode (B on Illus 1). Further evidence for human activity in the immediate vicinity during the Bronze Age included remains of plants associated with disturbed ground and five-six stakes of a possible fence line along the edge of the shingle bank. One of the oak stakes was radiocarbon dated to 2140 – 1770 cal BC. Broadly contemporary artefacts recovered

nearby from the alluvium in the channel comprised a single sherd of Middle/Late Bronze Age flint tempered jar and a fragment of human skull (Wessex Archaeology 2003, 7). This limited evidence suggests little more than isolated occasional visits to the vicinity of the Site during the Bronze Age, with the possible fence line - maybe acting as a windbreak - implying that the site was at least revisited if not occupied for a short period. Such limited evidence has been identified as typical of Bronze Age activity on the Sussex and Hampshire Coastal Plain, which has been identified as an important source of flint and clay, whilst also representing good summer grazing land for cattle. Wessex Archaeology also speculated that the fragment of human skull may be a ritual deposit of a type well-known in wetland environments in the mid to Late Bronze Age (ibid., 13).

Evidence for activity in the Iron Age is restricted to two sherds of pottery found in association with faunal remains (including pig and fallow deer) at an imprecise location in the alluvium (Wessex Archaeology 1999a, 17). Other Iron Age pottery came from roadworks at the A29/A259 junction (SZ 935 999), 1.38km north-west of the Site (C). The latter were found in association with Romano-British pottery and may be indicative of continued usage of native forms after Roman control had been established. This accumulated evidence indicates some form of Iron Age activity in the immediate vicinity of the Site, but no diagnostic evidence for settlement has been recovered.

13

On the basis of records from observations in the area there is a clear indication that the land around the Aldingbourne Rife was being occupied from Mesolithic times onwards (Find spot beyond low tide mark - 7748). It also appears from the distribution of sites (Illus 1) that there was little occupation during the Holocene within the zone of the larger Pleistocene channel. This may simply be that sites falling on this zone are too deeply buried to be discovered. However, looking at the distribution of Bronze Age and later sites it would appear that these respect the course of the earlier channel. The two carbon dates for the timbers adjacent to the Holocene channel (Wessex 2003) predate the climatic decline in the later Bronze Age, the lack of similar finds on the other side of this channel possibly indicating that even in the driest conditions the area of the older channel was not suited to even sporadic human activity.

6.2 Romano-British

Roman pottery of pre-Flavian date was found during roadworks at the junction of the A29 and A259 (SZ 935 999), c.1.38km north-west of the Site (C). The area between the South Downs and the sea has produced evidence for a rural economy based on farmsteads, villas (e.g. Angmering) or larger establishments such as the 'palace' at Fishbourne. Evidence has been recovered of a Roman settlement (D) at Limmer Lane, Felpham, c.850m north-east of the Site (Hudson 1997, 163).



Finds of Roman, Iron Age and Saxon date appear to replicate this pattern of occupation with the Aldingbourne Rife and its tributaries attracting occupation onto its edges but not within the zones of the older, larger channels.

6.3 Medieval

A Saxon sunken building was recorded at SZ 940 997, *c*.650m north-west of the Site (E), but this is the only archaeological record of pre-Conquest activity within the Study Area.

Bognor is mentioned in a charter of AD 680 (*Cartularium Saxonicum*) as *Bucganora* (Mills 1995, unpaginated) and Felpham was also an Anglo-Saxon estate (Hudson, 161). The lower part of the Aldingbourne Rife bounds the latter estate in 953 and is also mentioned in the 680 charter, in both cases referred to as *brynes fleot* (*ibid.*).

A chaplain is recorded in 1269 at the unlocated chapel of St Bartholemew (Mills 1995), but neither Bognor nor South Bersted occur in Domesday Book. Felpham is recorded as a holding of St Edward's Abbey, Shaftesbury and has a church (F),

'St Edward's Abbey hold and held FELPHAM before

Then it answered for 21 hides; now for 15½ hides. Land for 12 ploughs. In lordship 1 plough. 48 villagers and 19 cottagers with 15 ploughs A church; a fishery at 5s; 6 burgesses in Chichester at 7s. Meadow, 8 acres; woodland at 30 pigs. Value before 1066 £10; now £20'

(Morris 1976, 8a.1).

The parish of Felpham was under constant threat from erosion and incursion by the sea. A series of measures took place near the mouth of the Aldingbourne Rife and by 1405 a bridge had been built, presumably at or near the location of the current bridge, c.250m north of the Site. A sea wall or bank is mentioned to the west of it in 1436 on the Archbishop of Canterbury's land and a companion on the east bank is assumed. A sluice at the bridge is also mentioned in 1454 and a new sluice mentioned in 1535 may have been on the same spot. All these measures may have been instigated by a commission of walls and ditches for the estuary which was formed in 1422 and subsequently renewed. However, they had little effect in preventing flood damage to the bridge at least twice in the 15th century and the archbishop's fishery at the mouth of the rife was also devastated. The latter is likely to have been near the Site (Hudson, 161-2).

It would appear that during the medieval period the rife was a tidal stream meandering across a floodplain and was of insufficient size to accommodate a harbour or haven at its mouth. Sluices and other defences were constructed in the 15th and 16th centuries in an attempt to control flow and secure against the effects of surge.

6.4 Post-Medieval and Modern

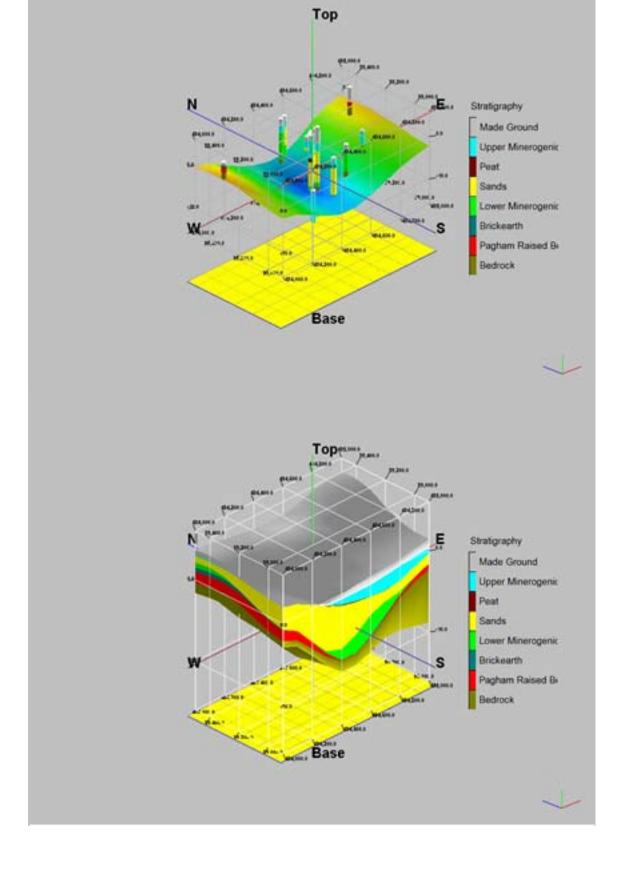
For this period a sequence of maps provides evidence directly relating to the Site, but the history of the Site needs to be understood within the context of the development of Bognor Regis and the surrounding district. Until the construction of Butlins in the later 1950s, the available evidence indicates that the Site was on marginal land unsuitable for settlement and of little economic or social value. Construction of Butlins Holiday Camp in 1959 wrought major changes upon the topography of the Site. Most obviously, the Aldingbourne Rife was backfilled. Boreholes and test pits placed within the former course show ϵ .4m of made ground above alluvial deposits

Both a survey of 1587 and Norden's map of 1595 show a sluice at the mouth of the Aldingbourne Rife, but a new timber sluice was constructed in *c*.1680 further south, suggesting some reclamation of land (Hudson, 161).

It is assumed that these are the sluices depicted on Yeakell and Gardner's map of 1778, where the low-lying land on each side of the Aldingbourne Rife (including the Site) is shown as marshland (Illus 3). The sewers commissioners erected new defences near the sluices in the early 19th century (ibid.) and these may have provided sufficient protection for use of the Site for grazing as Mason's map of 1817 labels it as 'Meadows' (Illus 4). The new defences are shown on a survey of the Sparkes' brothers' farm in 1824 (Illus 5). It is evident from this map that the beach on the Bognor side of the rife extended much further south than today. A small building to the west of 'Felpham Sluice' is described as 'Watch House' and the same building is probably shown on the South Bersted Tithe Map of 1843 as '204' (Illus 6). The apportionment describes this as the 'Preventive Station' (Appendix 1) and it is assumed that it housed a watcher at times of particularly high tide. The Tithe Map also appears to show that the sluice has been modified and the flow of the rife foreshortened, thus depicting the situation following destruction wrought by heavy seas in 1838 and subsequent rebuilding (Hudson, 161).

Further incursions and damage are reported in 1857, 1866 and 1867. The results are shown on the First Edition Ordnance Survey (OS) of 1876 (Illus 7) where a new sluice is shown and the seafront has attained roughly its present position. A series of streams can be seen coming south from the rife and running into a straight, presumably artificial, channel running east/west. Estimates of the extent of the recession of the coastline between 1778 and 1875 vary between c.158 yards of shore at Bognor Regis (Mills) and c.230 yards (207m) in the western part of Felpham parish (Hudson, 161).

The Tithe Apportionment describes plot 206 on Illus 6 as 'beach' and 205 as 'beach and bank' (Appendix 1), whilst the field immediately south of the Aldingbourne Rife (207) is called 'Sluice Patch' and is down to grass. Apart from the new channels, the First Edition OS shows no sign



Illus 123D representation of stratigraphy in channel vicinity





View A





 $\mathsf{View}\;\mathsf{C}$

of activity on the Site, and all subsequent editions show it occupying a field fronting Felpham Road, and on the earlier editions straddling a former field boundary (Illus 7 and 8) that had disappeared by 1912 (Illus 9 and 10).

The outbreak of war and, in particular, the evacuation from France in 1940 put Bognor Regis on the 'front line'. Beaches on the south coast became potential invasion theatres and defensive measures were taken. Evidence for this episode survives in the form of an anti-tank blocks along the coast (Appendix 2).

6.5 The development of Bognor Regis as a resort

In 1784/5 Sir Richard Hotham purchased 1,600 acres in South Bersted, Aldwick and Felpham in order to create a seaside resort to better Brighton. By the time of his death in 1799 there were 40 new buildings and the new resort had attained a fashionable status which it was to retain into the 19th century (centred on SZ 940 993, *c*.525m west of the Site. G on Illus 1). The threat of invasion from France resulted in the establishment of barracks in the settlement in *c*.1806–1810 (SZ 936 996, *c*.1km north-west of the Site, H). Growth after the end of the threat was gradual and by 1850 the population was still less than 2000.

The arrival of the railway in 1864 sparked rapid growth with a pier built in 1865 and a separate parish created in 1873. Another phase of growth occurred in c.1910, but the visit of George V to convalesce in 1929 and the subsequent renaming as Bognor Regis led to a great rise in day trippers. By 1937 an estimated 50 000 people visited Bognor Regis on the August Bank Holiday and surrounding parishes and settlements such as Felpham and South Bersted shared in the growth (Mills). Felpham however, retained a more rural character for somewhat longer. This partly arose from its physical separation from the sea by fields. In the 19th century it contained two windmills (Hudson, 162); White Windmill at SZ 948 992 (c.400m east of the Site), abandoned to the sea in the 1890s (J), and Black Windmill (K) at SZ 948 994 (c.360m north-east of the Site).

6.6 The Site and Butlins

In 1946 Bognor Regis Council purchased 39 acres of Brookland or Longbrook Fields for housing. However, this intention was not met. As part of an attempt to change the character of the Esplanade to the west, the council agreed to an exchange deal with Butlins. In return for land upon which the latter had a permanent funfair, the council granted Butlins a 99-year lease of the Brookland property for a holiday camp (*ibid.*).

The exchange did not progress entirely smoothly and was delayed by 'a final little flurry over the rife or stream which wandered through the low-lying site. Before work could begin on the camp it would be necessary to erect a concrete raft over the rife and to provide an adequate drainage system.' Payment was demanded from Butlins for this work, but Billy Butlin threatened to abandon the scheme unless the council paid. They agreed and construction work started in October 1959 (op cit, 252).

The camp opened on 2nd July 1960 and received 3000 visitors in its first week (op cit., 253). The 1963 OS survey (Illus 11) shows the recently completed camp and foreshortened and buried new course of the Aldingbourne Rife. The Promenade existed as a road or walkway between the camp and the beach. The Site was open land and the former course of the rife was perpetuated by the winding electoral boundary. By 1984 this boundary had been modified to follow the new water course (map not reproduced).

7. CONCLUSIONS OF THE STUDY

The proposed location of the new hotel lies on the edge of the Pleistocence channel. There is therefore a high potential for uncovering occupation sites from a wide range of periods. The proposed hotel also partly straddles a small post-medieval channel feeding the main rife (Illus 14). This could increase the likelihood of later historic activity associated with the channel occurring within the development area.

It is most likely that the favoured foundation design will be to use a piling method given the nature of underlying deposits. It is proposed that consideration needs to be given to the potential for occupation of all periods along the edge of the Pleistocene channel and also in later historic periods on the banks of a small tributary that runs through the centre of the site on the historic maps. Any need for assimilating further information should take into account the nature of the proposals in each area (with respect to their likely impact) and current ground cover and use (Illus 14).



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9. APPENDICES

9.1 Appendix 1 – South Bersted Tithe Map apportionment 1843

Plot	Owner	Occupier	Usage	Name etc.
201	Richard Clark	Unoccupied	-	2 tenements + garden
202	Richard Clark	Unoccupied	-	2 tenements + garden
204	Crown	Crown	-	Preventive Station
205	Commissioners of Sewers	Themselves	-	Beach and Bank
206	Richard Clark	Himself	-	Beach
207	Richard Clark	Himself	Grass	Sluice Patch
208	Richard Clark	Himself	Grass	Bognor Brook
954	Commissioners of Sewers	-	-	The Rife
982	Commissioners of Sewers	-	-	The Rife

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9.2 Appendix 2 – West Sussex Sites and Monuments Record

No.	Name	Туре	Date	Grid ref.
6810 - MWS6839	Seawater abstraction system - WWII	Pipeline	(WW II - 1939 AD to 1945 AD)	SZ 93394 99022
1228 - MWS2227	Hotham Park Ice House	Icehouse	Post Medieval – 1700 AD to 1799 AD	SZ 93640 99540
1230 - MWS2229	Bognor	Town	Post Medieval – 1700 AD to 1899 AD)	SZ 94000 99300
1233 - MWS2232	Black Windmill	Windmill	Post Medieval – 1800 AD to 1899 AD	SZ 94830 99400
1234 - MWS2233	White Windmill	Windmill	(Post Medieval - 1800 AD to 1899 AD)	SZ 94931 99317
1237 - MWS4532	Bronze Age axe - Felpham	Findspot	Late Bronze Age - 1000 BC to 701 BC	SZ 95000 99000
6066 - MWS4736	Brickfield between London Rd and Upper Bognor Rd	Brickworks	Post Medieval - 1800 AD to 1899 AD	SZ 93700 99700
6468 - MWS5215	Bognor Anti tank Blocks	Anti tank obstacle	WW II - 1939 AD to 1945 AD	SZ 94856 99160
1238 - MWS5714	Roman lamp - Felpham Manor House	Findspot	Late Iron Age to Roman - 0 AD to 99 AD	SZ 95160 9983
6727 - MWS6745	Bognor Barracks	Barracks	Post Medieval - 1540 AD to 1900 AD	SZ 9363 9959
6731 - MWS6749	3 Sudley Road, Bognor Regis - archaeological monitoring	Should be an event – but recorded as a monument.	No archaeological remains discovered.	SZ 93716 99140
1222 - MWS2221	St. Mary's Church - Felpham	Church	Medieval to Post Medieval - 1100 $\mbox{\scriptsize AD}$ to 1699 $\mbox{\scriptsize AD}$	SZ 94930 99880
6739 - MWS6758	Bronze Age remains on the foreshore at Bognor Regis	Site	Bronze Age - 2350 BC to 701 BC	SZ 9460 9903
7858 - MWS7951	Penny of Edward the Martyr	Findspot	Undated	SZ 9486 9940
6732 - MWS6986	Chichester Institue of Higher Education, Bognor Regis	Site	Post Medieval - 1540 AD to 1900 AD	SZ 94373 99608
7369 - MWS7437	Upper Bognor Road - Mesolithic Occupation	Flint scatter lithic working site Occupation site	Mesolithic - 10000 BC to 4001 BC	SZ 93989 99746
7370 - MWS7438	Upper Bognor Road - Neolithic/ Bronze Age finds	Findspot Flint scatter	Early Neolithic to Late Bronze Age - 4000 $_{\mbox{\footnotesize{BC}}}$ to 701 $_{\mbox{\footnotesize{BC}}}$	SZ 93989 99746
7371 - MWS7439	Upper Bognor Road - Anglo- Saxon occupation	Grubenhaus occupation site Post hole stake hole	Early Medieval/Dark Age - 410 $\mbox{\sc ad}$ to 1065 $\mbox{\sc ad}$	SZ 93989 9974
7372 - MWS7440	Upper Bognor Road - Post- medieval activity	Post hole Site	Post Medieval - 1540 AD to 1900 AD	SZ 93989 99746
		Wall		
7523 - MWS7597	Pillbox	Pillbox	WW II - 1939 AD to 1945 AD	SZ 938 988
7524 - MWS7598	Pillbox	Pillbox	WW II - 1939 AD to 1945 AD	SZ 939 989
7525 - MWS7599	Pillbox	Pillbox	WW II - 1939 AD to 1945 AD	SZ 941 990
7526 - MWS7600	Pillbox	Pillbox	WW II - 1939 AD to 1945 AD	SZ 944 991
7527 - MWS7601	Pillbox	Pillbox	WW II - 1939 AD to 1945 AD	SZ 948 991
7748 - MWS7839	Mesolithic Site	Occupation site	Mesolithic - 10000 BC to 4001 BC	SZ 94262 98743
6736 - MWS6754	43-47 Upper Bognor Road, Bognor Regis - archaeological evaluation	Pit	Roman - 43 AD to 409 AD	SZ 9399 9975





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