

**ASSESSING THE HISTORIC ENVIRONMENT OF THE EAST SUSSEX
AGGREGATE RESOURCE**

AGGREGATES LEVY SUSTAINABILITY SCHEME

DESK-BASED ASSESSMENT



**FOLKESTONE BEDS GEOLOGY
(BETWEEN NOVINGTON AND DITCHLING)**



ENGLISH HERITAGE



Casper Johnson and Greg Chuter
East Sussex County Council
Archaeology Section
01273 481608
county.archaeology@eastsussex.gov.uk

April 2009

2

CONTENTS

<i>List of illustrations</i>	4
<i>Abstract</i>	5
1 INTRODUCTION	6
1.1 Key Aims & Outputs.....	6
2 PLANNING BACKGROUND	6
2.1 Aggregate extraction background.....	6
2.2 Planning background.....	7
3 GEOLOGY, SOILS & TOPOGRAPHY	8
3.1 Folkestone Sandstone Beds (Bedrock) Geology	8
3.2 Soils.....	9
3.3 Topography.....	9
4 ARCHAEOLOGICAL BACKGROUND	10
4.1 Sources consulted	10
5 DESK BASED ANALYSIS	11
5.1 East Sussex Historical Environment Record (ESHER).....	11
5.2 The NMR.....	11
5.3 Listed buildings	11
5.4 Scheduled Ancient Monuments & Archaeologically Sensitive Areas.....	11
5.5 Registered Parks and Gardens.....	11
5.6 Current Ordnance Survey mapping	11
5.7 Historic Mapping	12
5.8 Historic & current extraction	12
5.9 Sussex Historic Landscape Characterisation	12
5.10 Place name studies	13
5.11 Geotechnical reports.....	13
5.12 Published & grey literature reports.....	13
5.13 Aerial data.....	13
6 SPECIALIST REVIEW AND RECOMMENDATIONS	14
6.1 Dr Matthew Pope, Senior Research Fellow, Institute of Archaeology, Archaeology South East, Boxgrove Projects	14
6.2 Luke Barber, Research Officer, Sussex Archaeological Society	15
6.3 Chris Butler, Chris Butler Archaeological Services and Mid Sussex Field Archaeology Team (MSFAT)	17
6.4 Ron Martin, Sussex Industrial Archaeology Society.....	18
7 SUMMARY AND DISCUSSION BY PERIOD	18

7.1	Palaeolithic (c.500,000 – c.9,000 BC).....	19
7.2	Mesolithic (c. 9,000 – 4,000 BC).....	19
7.3	Neolithic (c.4,000 –2,000 BC)	20
7.4	Bronze Age (c. 2,000 – 750 BC)	21
7.5	Iron Age (c.750 BC – AD 43).....	21
7.6	Romano-British (AD 43 - 410)	22
7.7	Anglo-Saxon period (AD 410 – 1066)	22
7.8	Medieval period (1066-1550)	23
7.9	Post-medieval, modern & industrial (AD 1550 – present).....	23
8	<i>Synthesis and CONCLUSIONS</i>	24
8.1	Potential effects of proposed development and mitigation.....	25
8	<i>REFERENCES & BIBLIOGRAPHY</i>	26
	<i>Appendix 2 – Historic Map Analysis</i>	28
	<i>Appendix 3 – Historic Landscape Characterisation Analysis</i>	29
	<i>Appendix 4 – Bibliographic Resource</i>	29
	<i>Appendix 4 – Sites identified by specialists</i>	30

LIST OF ILLUSTRATIONS

Front cover View north from Ditchling Beacon

- 1) Project area, aerial transects and geological resource
- 2) ESHER distribution and designated areas
- 3) Early Prehistoric evidence
- 4) Mid to Late Prehistoric evidence
- 5) Romano-British evidence
- 6) Medieval evidence
- 7) Post-Medieval and early modern evidence
- 8) Historic and modern extraction
- 9) New data recorded by this project

ABSTRACT

This document represents the first stage product of the historic environment resource assessment of aggregate geologies in East Sussex, which is funded by English Heritage from the Aggregates Levy Sustainability Fund (ALSF). This desk-based assessment (DBA) assesses the known and potential historic environment resource for the **Folkestone Beds** sand deposits, which run east to west between Novington and Ditchling in East Sussex. Four other similar DBAs deal with the gravels of the Ouse and Cuckmere Valleys and the coastal gravels deposits of the Crumbles and Rye Bay. Together they comprise the principle aggregate resource of sand and gravel within the county of East Sussex.

The DBAs bring together existing written, graphic, photographic and electronic information immediately available to the East Sussex County Council Archaeology Team in order to define the present level of understanding of the historic environment in the five areas. The aim of this present document is to provide specialists with a baseline in order that they can consider the present state of information available to the County Council Archaeology Team, advise on its strengths and weaknesses and provide information to address these weaknesses with suggestions for future research.

Data currently available demonstrates that the Folkestone Beds contain evidence for human activity from the early prehistoric through all periods to the modern day. Evidence for permanent settlement dates from at least the Iron Age period. The area is rich in medieval and post medieval remains and the current landscape is characterised by numerous surviving elements from these periods. The area has, however, received relatively limited archaeological research until now and its full archaeological potential, particularly for earlier periods may be greater than presently recognised.

1 INTRODUCTION

This report sets out the results of an assessment of the historic environment of the East Sussex aggregate resource funded by English Heritage from the Aggregates Levy Sustainability Fund (ALSF). The survey area comprised the historic county of East Sussex¹ and focused on five key areas of aggregate resource:

- Folkestone Sand (including the Plumpton and Novington areas)
- River Terrace Gravels (Ouse Valleys)
- River Terrace Gravels (Cuckmere Valley)
- Storm Beach Gravels (Crumbles, Eastbourne)
- Storm Beach Gravels (Rye Bay)

The aim of the project was to provide a consistent understanding of the historic environment across the areas of sand and gravel aggregate resource, including areas of past, present and future aggregate extraction, in order to inform decision-making and interpretation. The following aspects of the historic environment were considered:

- Geology and Palaeo-environment
- Archaeology
- Buildings
- Landscape

1.1 Key Aims & Outputs

The aim of this project was to provide a consistent understanding of the historic environment across the chosen areas of aggregate resource, including areas of past, present and future aggregate extraction, in order to inform decision-making and interpretation. A key aim of the project is that outputs will contribute to and enhance the following:

- East Sussex County Council Minerals and Waste planning documents
- East Sussex County Council Historic Environment Record
- South East Historic Environment Research Framework
- ESCC staff and project stakeholder understanding of the relationships between geology and the historic environment

2 PLANNING BACKGROUND

2.1 Aggregate extraction background

National Core Output Indicators for the production of Annual Monitoring Reports by Local Planning Authorities requires production of primary land-won aggregates to be reported on. Policy M3 of RPG9 Waste and Minerals requires the County Council to plan to maintain a land-bank of at least seven years of planning permissions for land-won sand and gravel, which is sufficient to deliver 10,000 tonnes per annum up to 2016. Requirements of aggregate reserves over the 16 years in the period included in the Regional Planning Guidance for the South East (RPG9) – Waste and Minerals (2001 – 2016) inclusive, equates to 16 x 10,000 tonnes. East Sussex and Brighton and Hove is required, therefore to make provision to ensure sufficient permitted reserves of 160,000 tonnes of construction aggregate sand and gravel in a period up to 2016. The current allocations

¹ Although East Sussex County Council provides archaeological advice to Brighton and Hove City Council, there is no aggregate resource in that area which was the subject of assessment during this project.

are being renewed as part of future modifications to the South East Plan, which is being prepared to replace RPG9.

The level of production in East Sussex is very low by regional standards. There are valid permissions for sand and gravel extraction in the County but activity is intermittent and is likely to remain so in the near future.

Existing Operation Sites and Permitted Aggregate Reserves (March 2006)

Site	Material	Permitted Reserve
Nook Beach/Castlewater	Sand and Gravel	Confidential figure
Stanton's Farm (Novington Sandpit)	Sand and Gravel	389,000 tonnes
Scotney Court	Sand and Gravel	935,000 tonnes
Scotney Court Extension/Wall Farm	Sand and Gravel	3,230,000 tonnes
Total:		4,545,000 tonnes

Source: ESCC Annual Monitoring Report 2005/2006 Minerals & Waste (Dec 2006)

Future Actions/Comments

There are very low levels of viable resources for land-won aggregates in the South East Plan area and there are relatively few sites in production. Despite this fact, nationally-set economic and housing objectives are creating a considerable demand for aggregates, which has implications for extraction activities within the county well into the future. It should be noted that the project matches the criteria in Objective 2 of ALSF (strategic mitigation of future extraction) as well as analysing existing data the wider dissemination of which will match Objective 3 (mitigation of past extraction).

2.2 Planning background

East Sussex County Council

The County Council is responsible for setting policies for minerals and waste development, dealing with applications for minerals and waste development and dealing with planning applications for its own service developments such as schools and libraries. For these reasons, this project, undertaken by East Sussex County Council Archaeology section with external specialist consultants, provides key guidance and information directly where it is most useful. At a wider level, the provision for involvement of the public, groups and operators in the process of contributing to setting future planning policies and considering planning applications is set out in the East Sussex Statement of Community Involvement (SCI) (East Sussex County Council, December 2006).

The Minerals and Waste Development Scheme (MWDS)

This sets out the titles and timetables of relevant documents to be prepared under the 2004 Planning and Compulsory Purchase Act. The main documents have to be accompanied by a Sustainability Appraisal (SA), which, along with social and economic issues, will appraise the environmental effects of the planning strategies and policies. It is likely that in pursuing the objectives of sustainable development the SA will include requests to carry out Strategic Environmental Assessments (SEA) of plans and programmes. This will demand good data about

the historic environment, which at present is lacking in some areas. This project provides that information for areas of terrestrial aggregate resource (sand and gravel).

The Waste and Minerals Development Framework

This project has been undertaken at a time of considerable change for planning as well as heritage protection. The relatively new planning system (Planning and Compulsory Purchase Act, 2004) has introduced the concept of core strategies and site allocation documents. This means the replacement of the Minerals and Waste Local Plan with a Waste and Minerals Development Framework, Regional Planning Guidance by a Regional Spatial Strategy and Supplementary Planning Guidance by Supplementary Planning Documents (SPDs). It is anticipated that the new system will speed up the preparation of plans, ensure plans are kept up to date (the idea of site documents separate from the core strategy), achieve more effective community involvement and ensure the right development, in the right place at the right time.

The Waste and Minerals Development Framework (WMDF) will comprise a set of Local Development Documents (LDDs) that set out the spatial strategy for the area and include Development Plan Documents (DPDs), such as those for minerals and waste. Along with Supplementary Planning Documents, which expand on policies and provide advice, these documents make up the County Council's Local Development Framework (the Waste and Minerals Development Framework (WMDF), which will comprise the following:

- Adopted Plans
- Core Strategy
- Site Allocation Documents
- Proposals Map
- Supplementary Planning Documents
- Local Development Scheme
- Statement of Community Involvement (SCI)
- Annual Monitoring Report

It is the aim that this project will contribute key data about the historic environment of the aggregate extraction areas, to be included in the above documents.

Sources consulted

- Relevant national planning guidance and legislation
- Relevant policies in the East Sussex Structure Plan
- Relevant Local Plan or Unitary Development Plan policies
- Relevant heritage designations including Scheduled Monuments, Conservation Areas, Listed Buildings and Historic Parks and Gardens

3 GEOLOGY, SOILS & TOPOGRAPHY

3.1 Folkestone Sandstone Beds (Bedrock) Geology

(fig 1)

Spatially the Folkestone Beds between Novington and Ditchling comprise a thin band (c.300m wide) of sedimentary rocks aligned east to west, outcropping between the Gault Clay to the south and Lower Greensand (a sandstone series of which they are part of) to the north on the southern flank of the Wealden anticline. The rocks to the north are older, whilst those to the south are younger in age. The Folkestone Beds are exposed at the surface around the Weald and have been

mapped from the beyond the county border in the west (TQ21041576) to near Novington Oak in the east (TQ37571454). The anticline structure of the Weald has resulted in the Folkestone Beds being arranged so that they dip to the south and present a small scarp to the north along much of their distribution.

During the middle of the Cretaceous Period (around 110 million years ago) the land surface slowly subsided and the sea advanced (Williams, R. 1999)

The Folkestone Formation, occurring at the top of the Lower Greensand sequence is thus a shallow marine deposit of middle Cretaceous age (c. 105 million years ago) and consists mostly of free-draining poorly lithified sands which can be classified as borderline sand/sandstone, having properties neither akin to the classical concept of an *engineering soil* nor being strong enough to be labelled a *rock* (Richards & Barton 1999). The formation consists predominately of poorly consolidated quartzose sands with seams of pebbles, clay with 'doggers' of hard ferruginous sandstone called 'carstone'. The sands are generally stained yellow to reddish brown by limonite, although clean, white sands also occur. The sands are usually of fine to medium grade, but local variations occur, particularly at the eastern end of the outcrop. In Sussex, the beds have a tendency to become argillaceous and glauconitic (Gallois 1965).

Analysis of the bedding planes with the sand deposits has led geologists to the conclusion that the Folkestone Beds were deposited from daily tidal currents which varied in strength and were also affected by strong currents, particularly in areas that were nearest to shorelines. The length of the depositional cycles in the Folkestone Beds is consistent with the slightly longer year (in terms of solar days) inferred for early Cretaceous times on various independent grounds. (Allen, J. 1982)

3.2 Soils

Soils on these free-draining sands are frequently bleached white due to the movement of iron oxides and other minerals down through the soil profile. This process of leaching leads to the degradation and depletion of the soil and the formation of podsoils. The soils on this geology are often acidic and lacking in nutrients and this inhibits soil fauna and leads to stark soil boundaries between the dark humus rich upper layers, grey and white leached out lower layers above iron pans at the base.

Recent archaeological evaluation at Novington Sand Pit, Plumpton by Chris Pine of Development Archaeological Services (LW/386/CM) has provided useful information on the nature of the soils that develop over the Folkestone Beds geology. The typical sequence comprises. 250 – 300mm of plough soil, described as dark greyish brown friable sand silt with occasional small to medium pebble sized flint clasts. A sharp contact to the sub-soil was noted, and this which was typically c.150mm thick comprised dark yellowish brown friable clayey sand with occasional small to medium pebble sized flint clasts. The subsoil had a moderately sharp contact to the underlying geology which comprised a brown friable/weakly cemented medium grained silty sand below which lay a loose brown medium sand (Pine, 2006).

The archaeological evaluations at Novington Sand Pit have revealed the presence of gravel spreads above the underlying sands, indicative of weak solifluction processes. No archaeological features were recorded but four of the evaluation trenches recorded worked flint/debitage but no diagnostic tools. All the recovered flint work came from the northern, lower slopes of the site and it has been suggested by the author that the flints may have moved and be in a secondary context. Greater archaeological potential is suggested for the higher ground to the south east but note is made of the HER recorded Mesolithic find to the north-west.

3.3 Topography

The project area is situated within the southern edge of the Low Weald and north side of the scarp foot of the South Downs, which rise to their highest point at Ditchling Beacon (fig 1). The Low Weald is characterised as a broad, low lying and gently undulating landscape with hills and valleys aligned roughly east to west. Underlain by softer silty sandstones and mudstones, springs are common at the junction between permeable sandstones and the impermeable mudstones,

resulting in a large number of small streams with strong seasonal variations in river flows dependant on rainfall.

The land along this narrow strip tends to fall from south to north, for example in the area around Novington Sand Pit elevations are typically around 47 – 48m AOD in the south, dropping to around 38m AOD in the north. This dip is caused by the anticlinal structure of the Weald, with topography reflecting drainage more than geological structure.

4 ARCHAEOLOGICAL BACKGROUND

East Sussex has received a high level of archaeological research from the mid 19th century when the Sussex Archaeological Society and a number of local archaeological societies were formed. The majority of the early research tended to focus on the chalk downs, but in the later 20th century attention was turned to the Low and High Weald landscapes.

4.1 Sources consulted

The main sources for East Sussex were found to be:

1. **The East Sussex Historic Environment Record (ESHER)**; this is the prime source of data for the desk based assessment and is held at East Sussex County Council. The record should hold data of all recorded sites, past investigations as well as a range of historic maps. The ESHER also holds more detailed records such as grey literature reports, listed building data and Portable Antiquity Scheme data. Although a huge source of data, the HER is reliant on transfer of information and does not unfortunately reflect a total archaeological record. It is also inevitable that some areas will have a low number of record sites due to a lack of investigation in the past.
2. **The National Monuments Record (NMR)** No other databases independent of the ESHER were identified and the NMR was found to contain an identical but out of date data set to that of the ESHER.
3. **Listed building list**; this is held by English Heritage and is record of all Grade 1 and 2 listed buildings. Many District Councils also hold listed building data alongside their designated conservation areas. Although covering many historic buildings this data source is not a comprehensive list of all historic buildings and certainly does not include many historic farm buildings and ruins.
4. **Schedule of Ancient Monuments & Archaeologically Sensitive Areas.**
5. **The Registers of Historic Parks and Gardens.**
6. **Current Ordnance Survey maps** at 1:10000, 1:2500 and 1:1250 scales.
7. **Historic mapping** this analysed 19th century Ordnance Survey maps. This source provides evidence for the post medieval change in landscape and land use as well as aiding in the location of destroyed buildings. Although the Ordnance Survey maps are relatively accurate the Surveyors Draft maps are often not to scale and of varying detail.
8. **Aerial data** The following air photographic collections were assessed:
 - the National Monuments Record's collection
 - Cambridge University Air Photographic Collection
 - 1946 RAF verticals held by ESCC
 - such other collections as are held by East Sussex County Council within the Historic Environment Record, the Archives Service, Planning and Highways Departments or elsewhere.

- the Sussex University collection
9. **Sussex Historic Landscape Characterisation** report currently being compiled by Nicola Banister with an expected conclusion in summer 2009.
 10. **Place names studies**, these can be derived from sources such as tithe and estate maps as well as existing village and landscape names. Place name studies shows that many place names have their origin in the early medieval period. Field names may also reveal potential sites such as mill sites. However, this source has major drawback in that place names tend to drift from their original location.
 11. **Geotechnical reports**.
 12. **Published and grey literature reports**, previous archaeological evaluation and excavation records relating to sites in and immediately adjacent to the study area.

5 DESK BASED ANALYSIS

5.1 East Sussex Historical Environment Record (ESHER)

Examination of the ESHER recorded thirty one records and ten events within the study area (Fig. 2). The monument records for historic buildings within Ditchling Village have been excluded from the search and the historic village treated as one monument. These are summarised in appendix 1. The HER data shows that the project area has been settled and utilised from at least the Mesolithic period, with an increase in activity during the Romano-British, medieval and post-medieval periods. It is therefore likely that future field investigation will discover further sites.

The HER also 'provided' designated Archaeologically Sensitive Areas (ASAs) and Scheduled Ancient Monument Areas (SAMs) (figure 2), which will be discussed below.

The project area does however contain areas with no ESHER records, likely to represent a lack of past archaeological research in these areas, rather than a lack of sites.

5.2 The NMR

The NMR was found to contain a duplicate, but out of date copy of the ESHER. No other databases independent of the ESHER were identified.

5.3 Listed buildings

The ESHER holds point data for Listed Buildings and this records a total of 63 within the project area. The majority of these are within the historic core of Ditchling village. Local building lists were not consulted.

5.4 Scheduled Ancient Monuments & Archaeologically Sensitive Areas

The project area contains no designated scheduled ancient monuments and three designated archaeologically sensitive areas (fig 2). These are targeted at the historic core of Ditchling, the medieval and post medieval village of Streat and the Upper Mill villa site at Plumpton.

5.5 Registered Parks and Gardens

The project area contains no registered parks and gardens. Local lists were not consulted.

5.6 Current Ordnance Survey mapping

The current 1:10000 Ordnance Survey map was analysed for evidence of current extraction and

land use. Approximately 75% of the project area was found to be farmland/woodland, with the remainder being housing/industrial. No evidence was seen for working quarries or extraction areas (the Novington Pit being label 'disused').

5.7 Historic Mapping

Analysis was carried out of:

Ordnance Surveyors Draft c. 1805-1810

- 1st edition Ordnance Survey c.1875
- 2nd edition Ordnance Survey ,1895
- 3rd edition Ordnance survey c.1915
- 4th edition Ordnance Survey c.1930

Evidence was recorded primarily from the Surveyors Draft (SD) and 1st edition Ordnance Survey (1st OS), concerning the extents of villages on as an indication of post medieval occupation areas, isolated buildings including settlements, industrial and agricultural; as well as evidence of extraction and quarrying. The 2nd to 4th Ordnance Surveys were used to track expansion of quarries and identify new areas of extraction. The results are summarised in appendix 2.

The historic map analyses identified a number of isolated building (many of which have not survived), a number of farm complexes. Villages such as Streat were found to have been larger in size than they are today.

5.8 Historic & current extraction

(fig 8)

The historic and modern map analysis was useful in identify a number of areas that had been impacted by past and modern quarrying. The Folkestone Beds have clearly been targeted for extraction from at least the early 19th century, mainly on a piece-meal scale, but there was evidence that some of the small early quarries had been expanded to a much larger scale in the later 20th centuries, Novington Pit being a good example of this. Analysis of the extent of extraction shows that a very small proportion of the resource has so far been removed. The British Geological Data was found to be consistent with the locations of the sand quarries, suggesting it is an accurate data set in this area.

5.9 Sussex Historic Landscape Characterisation

The HLC project is currently running in East Sussex, with an expected conclusion in summer 2009. Lewes District has been fully digitised, but this data is still in draft form. For the purposes of this report, the data was used to identify settlement across the whole project area (which had not been identified from the ESHER and historic map regression) and to analyse past land use and surviving elements of this within the aerial data transects.

Identified Settlement

Analysis of the HLC was useful in identifying 8 sites not recorded on the ESHER, these related to medieval/post-medieval settlements and farmsteads not apparent from the analysis of the HER and historic maps (Appendix 3).

Past land use and surviving elements

Transect FB1a

The HLC characterises this transect as being mainly field-scapes, containing small amounts of settlement, woodland and horticultural plots. Only the woodland elements were identified as being

a surviving element of the medieval landscape, the Hailey deer park having been absorbed by early post medieval informal fields. Most of the other field scapes in this transect also appear to have formed during this period as either assarts or formal enclosure. A number of nurseries appear in the late 20th century as well as ribbon development expanding eastwards out of Ditchling village.

Transect FB1b

As with transect 1A, this area is also predominantly field-scapes, with a small quantity of isolated settlement and woodland. A large proportion of the field-scapes, mainly in the southern half of the transect, and some of the woodlands have been characterised as surviving elements of the medieval landscape. Much of the northern half is characterised as piece meal enclosure and field amalgamations predominately formed in the early post medieval period.

It is remarkable that so much of the medieval landscape has survived in the two transects analysed and it is likely that this is the pattern across the whole of the Folkestone Beds project area.

5.10 Place name studies

Have not been assessed.

5.11 Geotechnical reports

We were unable to identify any geotechnical reports for the study area.

5.12 Published & grey literature reports

The ESHER provided a number of grey literature reports and references for published reports. Most of the recent work has been undertaken in or close to Ditchling and results from development.

One report (ESHER9627) provided two new Mesolithic sites and an accurate location along with a detailed section of the Greensand Way Roman Road. Some information had not been fully entered onto the GIS/HER. This was updated in January 2008 as a result of this project.

Novington Sand Pit (DAS interim report) is discussed above under geology, soils and topography.

5.13 Aerial data

In light of the large extent of this project area, four transect target areas were selected:

- FB1a targeted at an area of relatively little ESHER records and a former medieval deer park
- FB1b targeted at an area of moderate ESHER records including a Romano-British villa site

Aerial data sources identified were:

- 1) oblique and vertical photographs held by NMR
- 2) 1947 black and white RAF verticals held by the ESHER,
- 3) 1999 colour verticals held by ESHER,
- 4) 2006 colour verticals held by ESHER,
- 5) selection of oblique black and white photographs held by ESHER,
- 6) selection of oblique and vertical photographs held by East Sussex Record Office
- 7) selection of oblique and vertical photographs held by Sussex University,
- 8) oblique and vertical photographs held by Cambridge University

Cover searches of these sources recorded a large quantity of material which is quantified below:

Source	Collection	Vertical	Oblique	Military Oblique
NMR	Various	106 (Transect 1A)	0	0
NMR	Various	93 (Transect 1B)	0	0
ESCC	Whole project area	0	0	0
ESCC	1947 RAF	Full coverage		
ESCC	1999 colour	Full coverage		
ESCC	2006 colour	Full coverage		
ESRO	RAF for the Ordnance Survey, 1945-1947 (AMS 5868)	Not assessed		
ESRO	RAF, 1957 (C/P 63/8-9	Not assessed		
Sussex Uni	1946 RAF	Full coverage		
Sussex Uni	1950s collection	Full coverage		
Sussex Uni	1990s collection	Full coverage		
Cambridge	Various	1	5	

6 SPECIALIST REVIEW AND RECOMMENDATIONS

Dr Matthew Pope, Luke Barber, Chris Butler and Ron Martin assessed the draft DBAs in order to highlight factual errors, enhance the period summaries and where possible identify site information and bibliographic sources not identified by the initial DBA research. All the specialist comments have been incorporated in the period summaries above and their observations summarized below.

6.1 Dr Matthew Pope, Senior Research Fellow, Institute of Archaeology, Archaeology South East, Boxgrove Projects

Comments on Palaeolithic, Mesolithic and Neolithic periods

'It has to be mentioned from the outset that the work as it stands represents an extremely worthwhile and unprecedented undertaking for the county of East Sussex. The ability now to synthesise the HER for given geographical/topographical units in such a coherent and well presented format brings home the revolution in our ability to document and manage the historic environment through the application of technology and data management. Such an undertaking would simply not have been possible even a decade ago to this degree except perhaps through targeted academic research (e.g. a D.Phil or Post-Doctoral Research Project).'

Palaeolithic Period

The Lower Greensand may have been more important in the Palaeolithic than is generally recognised. The relatively high topography gives excellent views across the Weald, especially in deforested, open cool environments of early/late cold stages and inter-stadials. The provision of free-draining land would provide route ways through Weald for hunting groups following migrating game.

Mesolithic Period

Claims for Mesolithic pit structures needs to be reassessed in light of possible localised solution and fissuring. Solution pit activity on the Hythe Beds can give rise to localised hollows which act as traps for archaeological material.

Generic Comments

- As with the river valleys, an approach needs to be formulated to take account of, audit and incorporate Portable Antiquity Scheme records of lithic scatters. This not only requires putting the mechanisms in place to make accurate assessments of a large body individual finds and assemblages. Currently, the success of the PAS scheme is creating a new body of useful data. The challenge is now to come up with the classificatory framework to incorporate that information, for all periods, into the HER.
- It would be useful on the maps to provide outline distributions of other geologies: Notably the limits of the Lower Greensand and its contacts with the Gault Clay and Weald Clay. This would show how the beds form part of a wider strip of relatively free-draining sand geology flanked on either side by low lying, poorly drained clays and associated spring lines.
- Similarly it would be good to see the mapped distribution of Head Deposits as valuable Pleistocene sediments may be associated with these deposits.
- A map showing the topography (either contour or shaded DTM) would be useful to show the relationship of the geologies to landscape, showing where the Greensand provides an elevated ridge within the Weald and where it is dissected by drainage.
- It might be useful to briefly draw attention to the apparent localised distribution of Sarsen stones in the vicinity of Ditching. These may not be true Sarsen stones (from the Tertiary Reading Beds) and are more likely to be re-cemented Cretaceous sands but this has not, to my knowledge, been investigated.

6.2 Luke Barber, Research Officer, Sussex Archaeological Society

Comments on Mesolithic to Modern Periods

Mesolithic

- This is a good summary but the occupation site at Streat (Butler 2007 in SAC) should be mentioned – it was on the edge of the Gault/Folkestone Beds and produced features as well as a flintwork assemblage. It would also be worth mentioning the work in West Sussex, i.e. at Washington by Wessex Archaeology (Harding 2000 in SAC 138) as this all demonstrates the high potential of the area.
- Research into this period would be greatly enhanced by large-scale fieldwalking to locate sites and understand the topography they are generally to be found on – obviously artifact displacement due to slope would need to be considered and the land will need to have been under an arable regime for some time, but it is a quick way to cover large areas. Study of the artifact types of the different flint scatters located may shed light on type of activity.

Bronze Age Period

- The mound on Lodge Hill was recently surveyed by the CCE MA students. It may not be a barrow or it could be a windmill mound. The hollow in its centre is too large for an old excavation trench and, judging by the quantity of metal associated with the hollow

(magnetometer) it may be a WW2 position (perhaps Observer Corps).

- It would be worth mentioning the recent Oxford Archaeology excavations on the Lower Greensand at Hassocks which have uncovered evidence of a Late Bronze Age field system and one roundhouse on this geology suggesting permanent settlement may be present in the study area.

Roman

- An interesting research theme would be the field boundaries/landscape features of the villa estate – is there the possibility of a buried field system in the area and if so how did the changes in geology affect it? Large-scale stripping, as often undertaken with extraction, may address this. There is definitely scope for more Roman sites along the Study Area, especially between Ditchling and Plumpton.

Anglo-Saxon and Medieval Periods

- Comment needs to be made on the low-fired nature of AS pottery and thus how it does not survive often in the field once in the ploughzone. Reference should also be made to the Saxon material recovered from Friars Oak, Hassocks to show the potential of the area to contain sites of this period.
- Looking at the distribution of current farmsteads there are notable gaps which may contain medieval farms which were abandoned. Worth mentioning the possibility of a medieval mill in the study area?

Post-medieval to Modern Periods

- It would have been good to combine the historic map data with the HER for the post-medieval period and plot all the sites on the PM maps. Historic landscape characterization, historic maps, HER and Listed Buildings, if combined on one map would give a really good impression of the PM period – but probably too much work at this stage?
- It would probably be better to divide the PM period into early (to 1750/1800) and late (post 1750/1800) and integrate the industrial into the relevant bit (most will be late PM) – but this is probably too much work at this stage/level.
- There are many historic farm complexes in the area – are any of these ‘Model Farms’?
- The study of the agricultural buildings should be considered high priority where threatened/refurbished. Thought needs to be given to the historic landscape and mitigation measures put in place to screen off any new extraction.
- ‘There are no records of industrial sites’ – maybe not on the HER but the C19th- OS map included in the DBA shows a number of historic sandpits. Extraction (chalk, brickearth, gravel, sand etc) comes under the industrial site umbrella! Historic pits have the potential to contain the remains of ancillary structures and evidence of working practices. They are often at risk as they can be used as the start of current extraction which obliterates any such structures and the ‘frozen’ extent of the early pit. The late working at Novington Manor has probably already obliterated earlier features but a number of the pits have not been reworked and remain as small overgrown pits (ie pits to west of Streat Lane). How early are these pits? Much can be done from map regression to see how/when the pits expanded but little is shown of ramps/tracks and ancillary buildings. Detailed walkover would be needed to see if there were any obvious signs on the ground.
- The current landscape is predominantly one shaped by post-medieval farming, complete with its road/track infrastructure – to what extent this fossilizes the medieval landscape is

uncertain but needs to be carefully considered.

- Mention should be made of the need to carefully look for woodland features by walkover survey (not just those associated with former sand extraction).

Generic Comments

- Historic sandpits will have impacted on medieval and earlier remains but are worthy of study in their own right. They should be studied in field and with maps prior to destruction/extension.
- Impact on historic landscape by future extraction needs mitigation. Field study (hedges and woodland features etc) would be essential as would screening of new extraction (though this is impossible from the Downs). Extraction is, however, part of the historic character of this area as the abandoned sand pits attest.
- Area stripping for new extraction should provide data on early field boundaries over a potentially large area. Great help in understanding the development of current landscape especially when combined with cartographic and HLC analysis.
- Some areas are likely to have suffered severe plough damage in the last 100 years, but preservation is likely to be good within the many areas of woodland and long-term pasture in the area.

6.3 Chris Butler, Chris Butler Archaeological Services and Mid Sussex Field Archaeology Team (MSFAT)

Comments on all periods, especially Lithic periods and military archaeology

Pre-Roman Periods

There is no evidence for any Prehistoric or Roman defence sites situated within the project area. Ditchling Beacon, located on the north edge of the South Downs, is sometimes referred to as a hillfort of Late Bronze Age or Early Iron Age date, but there is little evidence for it having a defensive function.

Roman Period

The Roman Greensand Way runs east-west across the project area, and may have been used as a military communication route during the Roman and later periods.

Medieval & Post-medieval

Ditchling Beacon may have been the location of a Fire Beacon during the 16th century, with Mount Harry, also on the South Downs, being the site of a Beacon during the Napoleonic Wars. There is no other evidence for any military sites within or immediately around the project area until the Second World War.

Modern Military

- The HER dataset is particularly weak in aspects of Defence Heritage, and therefore it is of no surprise to see that there are no military sites on the HER for this area.
- There are relatively few actual known military sites within the Folkestone Beds Project

Area, and those that do survive are of a relatively recent date. The reason for this is almost certainly that apart from Ditchling, which sits at an important crossroads, the remainder of the area has little strategic value in terms of defence, due to its position immediately north of the South Downs.

- Of the small number of military sites within the project area, most are of low/minor importance, the only medium/moderately important site would be the ROC Post on Lodge Hill, Ditchling, which is a well preserved example of a reasonably common (although rapidly diminishing) site type. Outside the project area but included in the data feed back, the Bostall tank road is also medium/ moderately important, whilst the Pumphouse building at the Chailey ALG is a rare surviving example and would be classified as high/important.

Chris provided information relating to 18 military sites not identified in the draft DBA research (see appendix), mainly relating to WW2 defensive structures. These have been added to the ESHER. Chris also provided information regarding 7 non-military sites identified by MSFAT, these will also be added to the ESHER.

Generic comments

It is not known if any military sites have been removed by existing or past quarrying activity, although given the location of known sites, this seems unlikely.

There are very few military sites within the project area, and it seems unlikely that any will be disturbed by the current and proposed extraction indicated in the draft document.

Key Research Questions

There are two key research questions for the project area, these being to research the Ditchling Nodal Point and the defended locality at Streathill Farm, to establish the nature of these sites and to see if there are any elements remaining.

6.4 Ron Martin, Sussex Industrial Archaeology Society

The study area was found to contain very few additional sites, those identified comprised water mills and historic social buildings such as schools.

The potential impact of further sand extraction is low, however expansion or re-quarrying of former sand pits has a high potential to impact on quarry related structures and features

7 SUMMARY AND DISCUSSION BY PERIOD

The archaeological background is provided by recognised periods as follows

Periods	Date	Thematic divisions (after Champion, 2007)
Palaeolithic	800,000 to 10,000 BP	After the Ice Age (Upper Palaeolithic – Mesolithic)
Mesolithic	10,000 to 6,000 BP	
Neolithic	4,000 to 2,000 BC	The first farmers (Early Neolithic)
Bronze Age	2,000 to 700 BC	A world of monuments (later Neolithic – Early Bronze Age)
Iron Age	700 BC to AD 43	Ordering the landscape (later Bronze Age – early Iron Age)
Roman	AD 43 to 410	The approach of Rome (later Iron Age)
Saxon	AD 410 to 1066	
Medieval	AD 1066 to 1550	
Post-Medieval	AD 1550 to present	

It has been common to organise the pre-Roman past by use of the Three Age System, where the three phases, the Stone Age, the Bronze Age and the Iron Age (each sub-divided into sub-phase

such as the Palaeolithic, Mesolithic and Neolithic or by early, middle and late sub-phases for example) allow prehistoric material remains to be grouped in chronological order. In line with recent work e.g. Champion in Williams, J (ed.), 2007) a discussion is also given below of the broader phases of subsistence economy, settlement patterns and social organisation to accompany the more typical technological divisions.

It is suggested that the earlier periods are described by radio carbon years Before Present (BP) until about 4000BC after which there is an agreed calibration method and dates are given in calendar years BC.

7.1 Palaeolithic (c.500,000 – c.9,000 BC)

(fig 3)

This period is dominated by a series of ice ages broken by slightly warmer periods, with glaciers covering all but the southern half of Britain for most of the period. It was only in the slightly warmer summer months that nomadic Palaeolithic hunter/gatherer, possibly migrating from what is now the continent, would have exploited this landscape. Operating in groups they would have hunted big game such as rhinoceros, horse, bison, mammoth and deer. Palaeolithic artefacts are mainly in the form of single finds, predominately handaxes, many of which are found in drift geologies and therefore not in their original context. Site such as Boxgrove in West Sussex, where human remains, in-situ tools, flaking debris and butchered animal bones, show that sites from this period can survive and are of national importance in our understanding of the Palaeolithic in Britain.

The Palaeolithic period is represented by two records within the project area, the finding of a hand axe at Warnigore Farm [MES1236] and the finding of a hand axe in a pile of flints brought from an unrecorded location to repair the church wall at Ditchling [MES1314]. The ESHER record suggests the later find spot may have come from the sand quarry in the centre of Ditchling village. These finds may reflect surface finds, rather than finds within the Folkestone Sand deposits, although other beds of the Lower Greensand, at Beedings (West Sussex) and Ightham (Kent) give rise to fissuring which can preserve deep fills of loess and soliflucted material. While the Folkestone Beds are softer, analogous processes may allow for the capture of ancient land surfaces and terrestrial sedimentary sequences in localised areas.

With such limited data it is unclear whether Palaeolithic finds and possible sites are focused on the Folkestone Beds or its adjacent geology. However, The Lower Greensand may have been more important in the Palaeolithic than is generally recognised. The relatively high topography gives excellent views across the Weald, especially in deforested, open cool environments of early/late cold stages and inter-stadials. The provision of free-draining land would provide route ways through Weald for hunting groups following migrating game.

7.2 Mesolithic (c. 9,000 – 4,000 BC)

(fig 3)

Landscapes and environments at this time were recovering rapidly from the effects of the last ice age. Rising sea-levels severed the land-link between southern England and Europe around 8500 yrs BP, the climate became warmer and cool tundra-like landscapes were being replaced by deciduous woodlands of hazel, lime and oak, broken by isolated patches of grassland. Changes in environment and mammal populations led to a switch from the hunting of big game in open landscapes to the targeted hunting of smaller game in more closed, wooded environments. Tracking and hunting smaller prey required different strategies and more movement around their 'territory' probably on a seasonal cycle. Lighter tool kits were developed which were better suited for working in a woodland environment and travelling greater distances. The major impact during this period is the severing of the land bridge to the continent which 'stranded' Mesolithic groups in Britain and meant they developed a different culture to their cousins in Europe.

Certainly in Sussex Mesolithic man appears to have utilised all geological and topographical zones, but appears to have been more active, possibly in the form of semi-permanent settlements, on the better drained lands, such as sand and gravel deposits. Most 'sites' are represented by concentrations of flint tools and waste flint debitage from tool production, but occasionally physical features and deposits are discovered, such as pits, hearths and stake hole clusters (although sometimes these features may have been misidentified localised solution hollows and fissures containing trapped archaeological material). Archaeological features have been recorded on Greensand Series geology at sites such as Selmeston, (Curwen, E. 1938), Rock Common near Hassocks in West Sussex (Harding, P. 2000) and (although just outside the Folkestone Beds geology) at Streat Lane within this project area (Butler, C. 2007). The potential for features to be of in fermal nature and highly vulnerable to destruction is highlighted by the Rock Common excavation, which recorded a series of hearths within a large concentration of humanly worked flint and fire fractured flint. The flintwork assemblage here was interpreted as representing the re-tooling and repairing of hunting equipment.

Five concentrations of humanly struck flint and flint tools identified as Mesolithic have been recorded by the ESHER to the north and west of Ditchling Village and a single core from Streat.

Only one of these concentrations has been subject to detailed archaeological investigation that at Streat Lane, Streat (Butler, C. 2007), a site on the border of the Gault Clay and the southern edge of the Folkestone Beds. Excavation targeting a large flintwork concentration, recorded four pits containing large quantities of fire-fractured flint together with another pit that was interpreted as a possible temporary shelter or 'pit-dwelling'. The flintwork assemblage comprised of over 3000 pieces, mainly debitage waste flakes, but also included microliths and a small number of larger tools. The flint assemblage was indicative of a small range of activities on the site, likely to consist of repairing hunting equipment, campsite construction and small scale food processing.

The other concentrations recorded on the ESHER are also likely to represent temporary seasonal foraging camps, although the large quantity recorded at Lodge Hill suggests either longer/more intensive occupation or the use of the site on several occasions. Further fieldwork is very likely to increase this number substantially, based on distribution patterns of sites recorded in other areas of the Low Weald.

The low to moderate quantity of sites within the project area is likely to reflect a low amount of archaeological fieldwork rather than a limited amount of activity during this period. Certainly at Streat and on Lodge Hill (Rudling, D. 1994) a series of dense worked flint concentrations have been recorded. It is likely that a similar pattern would be seen in other areas of the project zone. It is however currently difficult to produce a distribution model for this period, but it does appear that the larger sites are focused on the Folkestone Beds which would have provided a free draining landscape and possibly a more open heathland environment.

7.3 Neolithic (c.4,000 –2,000 BC)

(fig 4)

The Neolithic period marks the adoption of 'elements' of European farming technology by the indigenous Mesolithic population of Britain (Drewett, P. 2003) resulting in a more settled communal society, although hunter/gathering is still likely to have played a large part in food resourcing. This period also marks the appearance of communal monuments such as burial mounds and ritual enclosures, although none have so far been identified within the project area, but have been identified on the chalk downs to the south.

No Neolithic sites or find spots are recorded on the ESHER; however, some of the material identified as Mesolithic and discussed above may be of Neolithic date. With no data from this period it can only be hypothesised that the project area was settled and utilised by Neolithic man. As in the Mesolithic period this may have focused on the free draining Folkestone Beds.

However, whilst it is possible that some Mesolithic material may have been wrongly classified its

apparent absence may be significant. There is a stark polarisation between recurrent Mesolithic scatters and possible pits on the Lower Greensand and Neolithic activity and pits (causewayed enclosures) on the chalk. This raises the hypothesis that activity shifted away from the sandy soils of the Lower Greensand during the Neolithic to the chalk Downlands. Future research will hopefully test this.

7.4 Bronze Age (c. 2,000 – 750 BC)

(fig 4)

The Bronze Age in Britain is defined by a marked influx of new people, technology and customs from the European continent. They brought new industrial and agricultural practices, burial traditions and the new technology of tools made of bronze metal. Certainly by the late Bronze Age, population pressures, limited land and a wetter climate resulted in the emergence of territories/tribal society and defended settlements, such as Seaford Head (Hamilton, S. 2003) which divided up the landscape.

Evidence from the early Bronze Age period suggests a steady 'colonisation' of the 'wildwood' of the Low Weald. It is likely that a series of droeways were being formed running from the South Downs through the Low Weald and onto the High Weald during this period (many of which continued in use through to the present day). These droeways would have attracted settlement and further forest clearance along their routes.

The ESHER records a single probable bowl barrow [MES 1305], although recent fieldwork suggests it may be a mill mound reused as a WW2 site (Barber, L. pers. comm.) and another undated mound [MES1303] which may be Bronze Age in date on Lodge Hill to the north of Ditchling, as well as the finding of Bronze Age and Iron Age artefacts in the vicinity of Ditchling.

It is likely that the initial landscape clearance for agriculture and settlement is taking place during this period, a process that was expanded during later periods.

As in the Mesolithic period, Lodge Hill/north Ditchling appears as a focus for activity, but this may reflect more archaeological fieldwork in this area. The limited data from this period makes distribution modelling difficult, but the Folkestone Beds may have attracted more activity and possibly related settlement, compared to the adjacent clay geology.

7.5 Iron Age (c.750 BC – AD 43)

(fig 4)

Iron Age society appears to have become increasingly territorial, with social/political power apparently focused on hillforts some of impressive size and complexity. These hillforts are likely to have acted as the administrative and trade centres for their territories, territories that would have been predominately occupied by small farmsteads.

Regionally, this period is characterised by a steady increase in agricultural practice and consequentially increased expansion into the Low Weald, although current evidence suggests the main focus was on the chalk Downland and the colluvial deposits at its scarp base. By the later Iron Age, East Sussex appears to have formed part of the Atrebate tribe, who dominated much of South-East Britain. The later Iron Age period also marks the first resourcing of the iron deposits of the Low and High Weald and a possible shift of communal hierarchy/control from the downs onto the High Weald (Hamilton, S. & Gregory, K. 2001).

As in previous periods a low quantity of recorded sites makes distribution modelling difficult within the project area. Only two find spots are recorded from these periods, fragments of a late Bronze Age/early Iron Age cauldron and a late Iron Age coin, both from the vicinity of Ditchling. It is possible that further investigation of the Romano-British sites discussed below will show them to

have their origins in the Iron Age or early periods.

7.6 Romano-British (AD 43 - 410)

(fig 5)

The arrival of Roman control and the integration of Britain into a wider European community marked a sharp expansion in settlement, industrial sites and population, triggered by new technology, a stronger economy and possibly by investment from the Empire

Very early in this period an important road known as the Greensand Way, running in an east to west alignment and connecting Chichester to the Ouse Valley (and possibly onto Pevensey) was constructed in Sussex, linked by a series of major roads running north to London. These major road systems may have been constructed for military communication and later adopted by the civilian community. The Greensand Way runs the length of the project area and is likely to have been joined by a network of minor roads, tracks and drove-ways. Fieldwork in other areas of the Low Weald is starting to build up a picture of a heavily utilised landscape during this period, containing abundant family sized farmsteads and small industrial sites, under the control of larger villa estates.

A substantial villa farm complex has been identified north of Plumpton [MES1886] and artefact concentrations likely to relate to settlements or buildings recorded to the north-east of Ditchling [MES1311] and adjacent to the Roman road at Providence Farm, Plumpton [MES1883]. The Plumpton villa is located on the Folkestone Beds, suggesting this geology provided a richer agricultural land than the adjacent clays as well as providing better drainage. Its 'central' position between the South Downs and the High Weald also gave it a greater range of landscape types to exploit. Recent fieldwork suggests that the villa is very badly plough damaged (Barber, L. pers. comm.). It is highly likely that other farmsteads existed on this geology, some of which may have been of villa status.

The study area therefore holds a high potential for further sites from the Roman period, some of which may be of regional importance.

7.7 Anglo-Saxon period (AD 410 – 1066)

(fig 6)

By the early 5th century AD Roman military and economic systems were collapsing in Britain. Troops were being transferred to more strategic sites or withdrawn from Britain. By AD 410 the few remaining Roman militia formed the only defence against invading Saxon tribes arriving in greater numbers from northern Europe.

The current archaeological record suggests a dramatic contraction of population and settlement patterns after the withdrawal of Roman control. This decline appears to have begun in the later years of the Roman period, brought on by a series of catastrophes including a collapse of the economy, pressures of Germanic raiding along the coast and a series of devastating plagues. The surviving population appears to have quickly adopted Saxon overlords and Germanic culture. Evidence of settlement during this period is scarce in East Sussex, but is attested by cemetery sites, which in other areas have been found to be in close proximity to the associated settlement.

The ESHER currently holds no early Saxon site records within the study area. This lack of early Saxon sites may reflect an abandonment of this area after the Roman withdrawal or more likely the evidence from this period has not yet been encountered as it lies buried under the modern villages

and farms. Anglo-Saxon sites are also difficult to detect as the main datable artefact, the pottery, is poorly fired during this period and does not survive well in the plough horizon. At Hassocks in West Sussex however excavation has recorded substantial settlement and an associated cemetery site at the junction of the London to Brighton Roman Road and the Greensand Way.

An expansion of population and settlement patterns starts again around the 7th century a time when the pagan population was being converted to Christianity and once again becoming part of a European community. During this period a number of villages formed in the study area, probably starting as little more than a cluster of family farms, but gradually increasing in size over the following centuries. The village of Ditchling, centred on an important crossroads, appears to have been the most important, possibly acting as a regional centre and royal manor (Warne, H.1998).

The ESHER contains eight records for these periods (the records for Ditchling village were counted as one overall village record), comprising of the historic villages of Ditchling, East Chilington and Streat, a probable settlement site at Duck's Bridge and the deer park.

Based on our current record, there appears to be a moderate potential for the early Saxon period and a high potential for the later Saxon period on the Folkestone Beds geology.

7.8 Medieval period (1066-1550)

(fig 6)

The medieval period represents a rapid growth in existing settlements and the formation of new settlements and outlier farms. This pattern forms the basis for much of today's settlement pattern within the study area, indeed the Historic Landscape Characterisation records a substantial amount of surviving medieval fieldscapes.

The 'power' focus is likely to have remained at Ditchling, although overall control would have been from Lewes. There appears to have been no monastic complexes within the area, but it is highly likely that the church owned land, probably under the control of Lewes Priory. The small deer park at Hayleigh Park may also have had monastic or noble ownership.

The ESHER records 6 sites, with a further 4 being identified by the HLC, comprising of villages, a chapel and farmsteads. These do not appear to be predominantly focused on sand geology, but as with earlier periods there may have been a preference to settle and farm well drained soils. There is currently no evidence of industrial sites, but the Domesday reference to a mill at Ditchling attests their potential to exist. The potential for further medieval sites to exist on the Folkestone Beds is high.

7.9 Post-medieval, modern & industrial (AD 1550 – present)

(fig 7)

The medieval pattern of a series of main villages and outlying farms is reflected during the post-medieval period. The ESHER records twelve sites of post-medieval date, comprising of farmstead related buildings and a water mill. The villages of Ditchling, East Chilington and Streat continued to be occupied, however all were reduced in size with some areas of former medieval occupation being abandoned. This shrinkage may reflect a population movement out into the hinterland where there appears to be an increase in farm estates. There areas around the current villages an historic farms therefore have a high potential to contain archaeological deposits from both the medieval and post-medieval periods.

There is currently no evidence of 19th century or WW1 military sites within the study area. Although the ESHER recorded no WW2 sites, specialists were able to provide 18 sites relating to defensive structures and aircraft crash sites. There are currently no records relating to post-medieval or modern industrial sites, the identified quarries however are likely to contain features and structures relating to the extraction industry.

Historic Extraction

Historic map analysis proved very useful in identify a number of quarries targeting the Folkestone sand beds. This suggests that the sand was quarried from at least the mid 19th century (probably earlier) and was on a relatively large scale. This quarrying continued and expanded into the 20th century and continues today as is demonstrated by the expansion of the Novington sand pit in 2006 (Pine, C, 2006). The quarries identified all fell within the Folkestone Beds resource defined by the British Geological Survey.

8 SYNTHESIS AND CONCLUSIONS

The analysis of the Historic Environment within the Folkestone Beds project area has shown that it does contain evidence of human activity from the early Prehistoric to modern day; and evidence of settlement from at least the Iron Age period continuing to the modern day. The area is rich in medieval and post medieval sites and the current landscape is characterised by surviving elements from these periods.

The area has however received fairly limited past archaeological research, resulting in its full archaeological potential not being immediately apparent.

The different sources of information were also found to be of varying quality and usefulness in assessing the archaeological potential of this area. The main and underlying source of data came from the ESHER, however this was found to contain limited detailed information and also often vague locations; this may reflect the level and quality of past archaeology research in this area though. Listed building data was again very basic and did not include local lists. A clearer pattern of surviving medieval and post-medieval buildings was identified from the historic mapping which in turn was enhanced by the HLC. The HLC was vital in analysing the character of this landscape and the date of its components.

From the evidence so far collated this potential, rated by historic period based on guidelines set by the Institute of Field Archaeologists, can be seen as:

Period	Potential
Palaeolithic	High
Mesolithic	High
Neolithic	Medium
Bronze Age	Medium
Iron Age	Medium to high
Romano-British	Very high
Anglo-Saxon & medieval	Very high
Post-medieval, Industrial & Modern	Very high

It is difficult to give the importance of many of the sites individually, this is partly because there are so many, partly because single finds may be the tip of an iceberg and some sites only become more important when one groups them together.

Allocating importance to sites will be easier when a more defined area for extraction is given – most of the very important sites in the Study Areas appear to be outside areas of potential extraction.

Most other post-medieval sites are of local/regional importance. Again, individually many are of low importance, but when grouped together they become of local/regional importance (e.g. farm complexes, water management features, and extractive industries). Extraction is only likely to impact on a small number/area of these sites/landscapes.

8.1 Potential effects of proposed development and mitigation

We are not aware of any current proposals for extraction in the area assessed, beyond the current activity at Novington Pit, but the following principles will be followed in assessing new proposals for development.

Modern extractive industry, even more than that of earlier periods, tends to be high impact and often completely destroys extant historic structures, buried archaeological deposits, and in many cases, geoarchaeological remains. Following the advice set out in Planning Policy Guidance 16 (PPG16), developers are likely to be required to carry out an archaeological mitigation strategy.

There is a danger of the loss of the landscape setting of farmsteads and defensive structures etc which needs to be considered on an individual basis by site. Usually only a ‘relatively’ small area of the landscape is affected and screening can help but this needs to be considered by site. There should be a preference for preservation in situ of upstanding farm complexes and military sites.

Thought should also be given to recording the remains of ‘historic’ extraction, which are themselves important elements of industrial historic environment. Often new extraction results in the complete destruction of the original pit/quarry and any associated structures, transport systems/infrastructure and indeed its fossilized outline.

Archaeological mitigation may comprise:

- desk based research, including historic map analysis and historical research to understand the development of the site and the material extracted
- walkover and geophysical survey, to locate surviving structures and transport networks and assess condition, character and importance.
- targeted evaluation excavation, informed by the above, to assess condition, extent and depth of buried deposits
- further/fuller archaeological excavation, monitoring and recording if required

Potential developers should seek guidance from the East Sussex County Council Archaeology Section, 01273 481608, [county.archaeology @eastsussex.gov.uk](mailto:county.archaeology@eastsussex.gov.uk)

9 REFERENCES & BIBLIOGRAPHY

- Allen, J. 1982, 'Mud Drapes in Sand-Wave Deposits: A Physical Model with Application to the Folkestone Beds (Early Cretaceous, Southeast England)', *Philosophical Transactions of the Royal Society of London. Series A, Mathematical and Physical Sciences*, Volume 306, Issue 1493, pp. 291-345
- Allen, M. 1984, 'Plumpton Roman villa a cursory note.' *Sussex Archaeological Collections* vol. 122, pp119-220
- Butler, C. 2007, 'A Mesolithic site at Streat Lane, Streat.' *Sussex Archaeological Collections* vol. 145, pp7-31
- Curwen, E. 1938 *Sussex Archaeological Collections* vol 79, pp. 195-198
- Gallois, R.W. 1965, 'British Regional Geology: The Wealden District.' Her Majesty's Stationary Office, London.
- Garret, S, 1976, ' A Mesolithic site at Lodge hill, Ditchling.' *Sussex Archaeological Collections* vol 114, pg 326
- Harding, P. 2000, 'A Mesolithic site at Rock Common, Washington.' *Sussex Archaeological Collections* vol. 138, pp 29-48
- Pine, C, 2006 'Interim summary report on the results of preliminary phases [1-3] of archaeological site investigations undertaken at Novington Sand Pit and land adjacent to the east of Plumpton Lane, East Chiltington, East Sussex' (Unpublished DAS report)
- Richards M and Barton N 1999, 'The Folkestone Bed sands: microfabric and strength.' *Quarterly Journal of Engineering Geology and Hydrogeology*. vol 32: pp 21-44
- Rudling, D. et al 1994 'The Ditchling to Wivelsfield Green, East Sussex reinforcement water main project 1993 : Report on an archaeological evaluation and a watching brief.' South Eastern Archaeological Services Project no. 1992/106.
- Warne, H. 1998, '*Ditchling Parish Survey: Its topography c.900-1984.*' Unpublished research project, (copy in Barbican House Library, Lewes)
- Williams, R. 1999 'Geology' in 'An Historic Atlas of Sussex.' Leslie, K. & Short, B. 1999, Phillimore

APPENDIX 1 – ESHER DATA

Monument Records

Site Name	Parish	NGR	HER no.	Type	Date
Church wall material	Ditchling	TQ 326 153	MES1314	axe (redeposited)	Palaeo.
Warningore	East Chiltington	TQ 374 140	MES1326	handaxe	Palaeo.
Streat Lane	Streat	TQ 352 146		Occupation site	Meso.
Lodge Hill	Ditchling	TQ 323 153	MES1312	artefact concentration	Meso.
Lodge Hill	Ditchling	TQ 3215 1545	Grey lit	artefact concentration	Meso.
Lodge Hill	Ditchling	TQ 3222 1580	Grey lit	artefact concentration	Meso.
Pumping station	Ditchling	TQ 319 152	MES1296	artefact concentration	Meso.
Nether Bowries	Ditchling	TQ 3257 1580	MES1306	find spot	BA
Lodge Hill	Ditchling	TQ 3238 1555	MES1305	Barrow ?	BA
Park Barn Farm	Ditchling	TQ 329 158	MES1313	find spot	IA
Providence	Plumpton	TQ 358 154	MES1883	building?	RB
Barcombe to Hassocks	multiple			road	RB
North End Farm	Ditchling	TQ 329 156	MES1311	settlement	RB
Upper Mill	Plumpton	TQ 360 147	MES1886	villa	RB
Ducks Bridge	Streat	TQ 352 157	MES2035	settlement	med
Streat Chapel	Streat	TQ 3508 1518	MES2031	chapel	med
East Chiltington	East Chiltington	TQ 3699 1511	MES1320	chapel	med
Hayleigh Park	Westmeston	TQ 34 15	MES2074	deer park	med
Ditchling	Ditchling	TQ 32 15		village	med - PM
Lodge Hill	Ditchling	TQ 3242 1561	MES1304	Fieldsystem	med - PM
Streat Place	Streat	TQ 3504 1523	MES2030	house	PM
Hayleigh Farm Cottages	Westmeston	TQ 34720 15254	MES7155	building	PM
Rylands Farm	Plumpton	TQ 36508 15630	MES7147	farmstead	PM
Chapel Farm	East Chiltington	TQ 3689 1508	MES1322	building	PM
Plumpton Mill	Plumpton	TQ 36342 15012	MES7140	watermill	PM
Old Mill House	Plumpton	TQ 36340 15014	MES7143	building	PM
Hayleigh Farm	Westmeston	TQ 347 151	MES2074	farmstead	PM
Spatham Farm	Westmeston	TQ 33806 15650	MES7157	building	PM
Mill Hollow	Plumpton	TQ 36294 14746	MES7139	mill house	PM
Mill Cottage	Plumpton	TQ 36322 14726	MES7136	building	PM
106-7 Plumpton Lane	Plumpton	TQ 36390 14476	MES7129	building	PM
Lodge Hill	Ditchling	TQ 3233 1591	MES1303	mound	BA or PM

APPENDIX 2 – HISTORIC MAP ANALYSIS
(Surveyors Draft and 1st to 4th editions Ordnance Survey)

<i>Site Name</i>	<i>Parish</i>	<i>NGR</i>	<i>Type</i>	<i>Earliest Source</i>
Streat	Streat	TQ 351 152	SMV	SD
East Chiltington	East Chiltington	TQ 369 151	DMV	SD
Allington House	East Chiltington	TQ 3773 1382	Building	1st OS
Novington Lane	East Chiltington	TQ 3731 1399	Building	SD
Keepers Cottage	East Chiltington	TQ 3731 1414	Building	SD
Plumpton Lane	Plumpton	TQ 3637 1414	Building	SD
Fallbrook	Plumpton	TQ 3627 1420	Building	SD
Plumpton Lane	Plumpton	TQ 3638 1447	Building	SD
Parsonage	Streat	TQ 3505 1542	Buildings	SD
Lodge Hill	Ditchling	TQ 3238 1573	Building	SD
Plumpton College	Plumpton	TQ 3577 1457	Barn	SD
Wapple Way	Plumpton	TQ 3436 1461	Barn	SD
Toll Gate	Ditchling	TQ 3257 1484	Toll gate	SD
Old Yard Farm	Ditchling	TQ 3333 1489	Farm complex	SD
Stantons Farm	East Chiltington	TQ 3713 1487	Farm complex	SD
Ashurst Farm	Plumpton	TQ 3605 1531	Farm complex	SD
West of Lodge Hill	Ditchling	TQ 3220 1552	Barn	SD
Sandrock Hotel	Ditchling	TQ 3263 1523	Sand quarry	1st OS
Lane End West	Westmeston	TQ 335 150	Sand quarry	
Lane End East	Westmeston	TQ 336 150	Sand quarry	1st OS
Streat Caravan Park	Streat	TQ 351 147	Sand quarry	1st OS
East of Plumpton Woods	Plumpton	TQ 357 146	Quarry	1st OS
Novington Old Pit	East Chiltington	TQ 366 146	Sand quarry	1st OS
Novington Pit	East Chiltington	TQ 367 145	Sand quarry	

APPENDIX 3 – HISTORIC LANDSCAPE CHARACTERISATION ANALYSIS (Lewes District)

Site Name	Parish	NGR	Type	Date
Stantons Farm	East Chiltington	TQ 371 148	Settlement	med
Ashurst Farm	Plumpton	TQ 360 153	Farm	med
North Acres	Streat	TQ 351 153	Settlement	med
The Rectory	Streat	TQ 350 153	Settlement	med
Brocks Wood	Streat	TQ 350 146	Settlement	LPM
Plumpton Cross	Plumpton	TQ 364 153	Settlement	LPM
Newtons	Ditchling	TQ 337 155	Settlement	LPM
Cordons Farm	Ditchling	TQ 337 152	Farm	LPM

APPENDIX 4 – BIBLIOGRAPHIC RESOURCE

ESHER	Record Type	Date	Organisation	Grid ref	Location	Source
EES13935	Watching brief	10/09/2003 - 11/09/2003	Archaeology South East (formerly SEAS)	TQ 3265 1528	Land to rear of, Former Sandrock Public House, High Street, Ditchling,	Report: Archaeology South-East. no. 1706
EES14012	Watching brief	22/04/2004	Mid Sussex Field Archaeological Team	TQ 3268 1545	North End Farm, 3-5 East Gardens, Ditchling,	Article in serial: Mid Sussex Field Archaeology Team. July 2004
EES14032	Building analysis		Archaeology South East (formerly SEAS)	TQ 3260 1523	The Post Office, 1 Lewes Road, Ditchling,	Report: Archaeology South-East. no. 1505 (2002) Martin D & B
EES14126	Watching brief	23/02/1994	Archaeology South East (formerly SEAS)	TQ 3504 1521	Streat Place, Streat,	Report: Archaeology South-East. no. 317b (1996) Jonsson G.
EES14141	Field walking	08/04/2000	Mid Sussex Field Archaeological Team	TQ 3598 1472	Plumpton Villa, Plumpton	Article in serial: Mid Sussex Field Archaeology Team. April 2000
EES14188	Watching brief	02/11/2005	East Sussex County Council	TQ 3267 1537	6 East Gardens, Ditchling	Report: Historical Environment Record. nov 2005 Chuter G.
EES14277	Watching brief	30/06/2006 - 01/02/2006	Mid Sussex Archaeology Society	TQ 3279 1515	5 Fieldway, Ditchling	Article in serial: Mid Sussex Field Archaeology Team. Feb. 2006 (2006) Cudmore D.
EES9623	Field walking	01/01/1996 - 31/12/1997,	Mid Sussex Archaeology Society	TQ 359 153	Plumpton Villa	Serial: Sussex Archaeological Society newsletter. 84/April 1998 Page No. 6
EES9624	Field walking	01/01/1996 - 31/12/1996,	Archaeology South East (formerly SEAS)	TQ 360 147	Plumpton Villa	Serial: Society for the Promotion of Roman Studies. Britannia : a journal of Romano-British and kindred studies Vol 1 (1970) -. 28/1997 Page No. 447
EES9627	Watching brief	01/01/1993 - 31/12/1993,	South Eastern Archaeological Services	TQ 3204 1523	Ditchling to Wivelsfield	Report: South Eastern Archaeological Services no.1992/106
EES8976	Field survey	01/01/1933 - 31/12/1933,	Museum of Sussex Archaeology	TQ 3420 1540	The Greensand Way	Serial: Sussex Archaeological Society. Sussex Archaeological Collections. 76/1935/7-34

APPENDIX 5 – SITES IDENTIFIED BY SPECIALISTS

Table 1 Military sites

Ditchling Nodal point	Ditchling	TQ 325 152	Defensive point	WW2
Streathill Farm	Ditchling	TQ3313-3512	Defensive line	WW2
Shirleys	Ditchling	TQ 33311487	Anti-tank buoys	WW2
Stocks Farm	Ditchling	TQ 3385 1602	Anti-tank buoys	WW2
Plumpton College	Plumpton	TQ 358 134	Anti-tank buoys	WW2
Plumpton College	Plumpton	TQ 358 134	Land army training	WW2
Bostall	Plumpton	TQ 3636 1317	Tank road	WW2
Chailey	Chailey /Plumpton	TQ 371 193	Air Field	WW2
Chailey	Chailey /Plumpton	TQ 3685 1889	Fuel store	WW2
Lodge Hill	Ditchling	TQ 3234 1563	ROC post	CW
Ditchling Bostal	Ditchling	TQ 333 132	"unknown"	WW2
Wales Farm	Plumpton		Crash site	WW2
Blackbrook	Westmeston		Crash site	WW2
Sedlow Wood	Westmeston		Crash site	WW2
Ditchling	Ditchling		Crash site	WW2
Black Cap Hill			Crash site	WW2
Westmeston	Westmeston		Crash site	WW2
Plumpton College	Plumpton		Crash site	WW2
Streat Lane	Streat	TQ 352 146	Camp	Meso
Streat Lane	Streat	TQ 352 146	Flintwork concentration	Neo
Plumpton villa site	Plumpton	TQ 361 146	Flintwork concentration	Meso-neo
Plumpton villa site		TQ 3615 1450	Flintwork concentration	Meso
Streat Place	Streat	TQ 350 152	?settlement	?RB
Sand pit		TQ 365 146	Box flue tile	RB
Tennis Club	Plumpton	TQ 3675 1614	Flintwork	Neo-BA
Tennis Club	Plumpton	TQ 3675 1614	pottery sherd	Med
near Stanton's Sand pit	East Chilmington	TQ 366147	pottery concentration	Med

Table 2 Industrial and 19th/20th century sites

HER Number	Grid Reference	Site name	Site summary/description
MES8215	TQ 32540 15280	Water pump	Water pump in churchyard

MES8216	TQ 32490 15290	School	Village School, now Ditchling Museum
MES8217	TQ 36200 14700	Water mill	Water mill
MES8218	TQ 36200 15000	Water mill	Water mill
MES8219	TQ 35140 15210	School	Former village school