ASSESSING THE HISTORIC ENVIRONMENT OF THE EAST SUSSEX AGGREGATE RESOURCE

AGGREGATES LEVY SUSTAINABILITY SCHEME

DESK-BASED ASSESSMENT

STORM BEACH GRAVELS

(RYE BAY)

ENGLISH HERITAGE

East Sussex County Council

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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 **Storm beach gravels** at **Rye Bay** in East Sussex. Four other similar DBAs deal with the gravels of the Ouse and Cuckmere Valleys, the coastal gravels deposits of the Crumbles and the Folkestone Beds Sandstone between Novington and Ditchling. 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 Section using the Historic Environment Record (HER) in order to define the present level of understanding of the five areas. The aim of the project has been to critically review the HER and information available to the Archaeology Section in consultation with specialists, which it was hoped would also feed into the South East Regional Research Framework. This report presents the results of this study, outlines the strengths and weaknesses of the present level of knowledge and provides information to address these weaknesses with suggestions for future research.

The Rye Bay beach gravel deposits are of importance both in terms of their role in the developing understanding of the palaeogeography of the area and also as the location for human activity since later prehistory. Evidence for settlement may date 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 received relatively detailed archaeological research though the complexity of the dynamic sedimentary and formational history of the area means that the 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 Sussex[1] 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 Regional Planning Guidance for the South East (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 RPG9 – Waste and Minerals (2001 – 2016) inclusive, equates to 16 x 10,000 tonnes. East Sussex with 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 are being renewed as part of future modifications to the South East Plan, which is being prepared to replace RPG9.

[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.

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 (no longer extant – 2009)
- Relevant Local Plan or Unitary Development Plan policies
- Relevant heritage designations including Scheduled Monuments, Conservation Areas, Listed Buildings and Historic Parks and Gardens

3 SITE GEOLOGY & TOPOGRAPHY

3.1 Storm Beach Gravel Deposits

(Fig. 1)

The Romney Marsh today can appear as a generally flat area of fields with grazing sheep and large skies. On closer inspection it becomes clear that there is considerable complexity to the make up of what is generally called the Romney Marsh. The depositional environment, of which Rye Bay in East Sussex forms a part, is recognised as one of the largest coastal lowlands in the UK. The work of the Romney Marsh Research Trust and other researchers have led to a greater understanding of the rich and varied record of the environment and landscape change of the area.

Between 2002 and 2004 a team led by Dr Anthony Long of Durham University undertook a series

of field and laboratory-based analyses in order to understand the past development of two key areas: Project 1, Dungeness Foreland and Project 2, the Port of Rye, Romney Marsh area. The 2002–2004 research was also funded by English Heritage through the ALSF and forms an essential basis for this present study. It is not the aim to repeat the detailed results of the earlier study here, but rather to seek to ensure that the understanding that that project and others have developed is integrated into this study in order that the HER is brought up to date and that decisions relating to cultural resource management in the area are underpinned by the most up to date evidence and research.

The 2002–2004 research confirmed that a key control on the evolution and occupation of the marsh has been, and continues to be, the coastal gravel and sand beaches, including those at Rye Harbour. Aggregate extraction from these beaches has impacted directly on their palaeo-environmental, archaeological and historic landscape character but it should be emphasises that this area provides a rich resource for understanding the 'shifting balance between natural and human processes as agents of landscape change' (Long, *et al* 2004).

The 2002–2004 research for the Rye project sought to develop an environmental history for the evolution of the port of Rye during the last 3000 years, paying particular attention to the landscape changes associated with the development of the sand and gravel beaches of the area. Three time periods were used:

1000BC – AD1250: Emphasis for the palaeoenvironmental reconstruction during this period was placed on the physical evolution of the area prior to the devastating storms of the thirteenth century. This included landscape change associated with the inundation of an extensive coastal peatland, which persisted from 6000 until approximately 3000 years ago before being submerged by tidal waters.

AD1250 – 1500: The great storms which breached the gravel beach barrier in the thirteenth century resulted in the destruction of Old Winchelsea, but also the inlets that were formed created safe harbours. Geomorphological, paleaoecological and archaeological studies from this period helped to determine the impact of the initial breaching, and the location and extent of the major tidal inlets.

AD1500 – 1850: This period saw major changes to coastline due to siltation, gravel beach barrier development, and land claim and sea defence, all of which [were considered] to have contributed to the decline in the economic fortunes of the area. These changes were tracked using aerial photographic interpretation, as well as sediment analyses of tidal channel and port infilling.

The surface deposits of the area defined for this assessment largely comprises gravel, clays-silts-sands and channel sands and might usefully be summarised as follows.

The **gravel deposits** can be divided into three main areas:

> i) The 'low level' (generally below 3m OD) SW-NE orientated beaches of Broomhill Level. These formed as part of a shingle spit developing in a north-easterly direction across Rye bay. Optically Stimulated Luminescence (OSL) dating of the shoreface sands beneath the gravel and radiocarbon dating of peats above the gravel indicate ages of emplacement of *c*. 2700 BC and *c*. 2200 BC near Broomhill Farm and at the Midrips respectively. The gravel surfaces therefore have the potential for evidence of human activity from the Neolithic onwards.
>
> ii) The gravels of East Guldeford Level. These represent gravels driven inland as a result of the major breach in the gravel barrier system in the vicinity of Rye in the 13th century (Long *et al*. 2007). They appear subsequently to have been reworked within the Rother estuary and Wainway channel. Their emplacement at Moneypenny Farm can be dated using OSL from shoreface sands to post *c*. 1500 and their position indicates they post-date walls constructed in AD 1532 and 1542 (Long *et al*. 2007). Borehole evidence indicates these deposits do not extend laterally much beyond their surface expression. A 'high level' (crest height *c*. 3.5m OD) gravel ridge near Broomhill Farm probably formed in a similar fashion, also after the 13th century breach in the barrier (Gardiner & Hartwell 2006).

iii) The gravel beaches of Camber Castle/Rye Harbour. The position of the gravel ridges in the vicinity of Camber Castle were mapped in 1948 by Lovegrove (1953). Lovegrove was able to propose dates (from the 17th to the 19th centuries) for a series of shorelines extending east of Camber Castle using historic maps. His chronology has not been challenged by subsequent workers and an OSL date from shoreface sands beneath the oldest ridges near Camber Farm (of *c*. AD 1400) confirm their relatively recent (post Rye breach) age. The beaches which have not been subject to gravel extraction (particularly those in the vicinity of Camber Castle) are exceptionally well preserved. Topographic and stratigraphic surveys of the gravel ridges, as part of the Durham/Kingston/Liverpool ALSF work, undertaken by Stupples, is reported in Culley *et al*. (2004). The now largely extracted gravels north of the river Rother (near Northpoint Beach) can also be shown through cartographical evidence (Eddison 2000) to be of relatively recent age (pre 18th century), formed by the westerly movement of material as the Rye breach in the gravel barrier system healed. Again, borehole evidence indicates the Rye Harbour deposits do not extend laterally much beyond their surface expression.

Near surface clays-silts-sands: deposits of clays-silts-sands outcrop over most of Pett Level, Brede Level and East Guldeford Level. Generally over 2 m thick they locally attained thicknesses of +8m. Durham/Kingston/Liverpool ALSF work indicates deposition, in marine-brackish environments, largely post the 13th century breach in barrier system near Rye. Tidal laminae suggest deposition rates may have been as high as 0.2 m/yr (Long *et al*. 2007). The modern day drainage systems partly preserve the creek systems associated with their deposition, while aerial photograph/LiDAR data allows the detailed reconstruction of these former drainage networks (for East Guldeford see Gardiner 2002, for Pett Level see Culley 2004, Long *et al*. 2007). Earthworks (walls) are associated with the limits of these deposits (Tore Wall) and with their reclamation, along with of features such as scour pits (produced by the breach of the walls).

These deposits cover archaeological sites pre-dating the 13th century so that they cannot be seen at the surface nor even from ditch sections. For example, two sherds of 12th-14th century pottery were recovered in a borehole from the edge of Pett Level at a depth of nearly 4 m from the surface, (Long *et al*. 2007). However, the clays-silts-sands notably thin both to the west, immediately adjacent to the pre-Holocene upland and east over Broomhill Level. In the former situation the preceding peat is locally exposed at or near the surface in the Leasham and Tillingham valleys and just outside the area defined for this assessment in the Pannel valley (see IGS 1976). Dates from the peat surface range from *c*. 1800 BC to *c*. AD 900 and although the potential for archaeological finds from the early Bronze Age onwards exists, in terms of organic remains this is low, as the peat is invariably highly humified. Where these deposits are absent over Broomhill Level; gravel, channel sands which pre date the 13th century breach (Midley Sand) and other earlier minerogenic deposits are exposed at the surface (Kirby *et al*. 2007). The latter area has high archaeological potential (e.g. Gardiner 1988, Eddison 2000, Gardiner & Hartwell 2006).

The sub-surface (at a variable depth of between 1-4m beneath the surface) peats of East Guldeford level are of international importance and form a key element in a recent SSSI designation. Locally well-preserved *Sphagnum imbricatum* spp. *austinii* remains indicate the presence of a ombrotrophic bog (one of only two known from SE England) which persisted from 750 BC until at least *c*. 1000 AD (Waller *et al*. 1998; Long *et al*. 2007). The unusual pattern of parallel drainage ditches from parts of this area (Gardiner 2002) may represent peat cuttings. The potential for archaeological finds is high, though due to the depth of burial and the expanse of the deposits, recovery is thought to be unlikely.

The location and history of the larger tidal **channel systems** active during the deposition of the clays-silts-sands (e.g. following post the 13th century breach at Rye) have been reconstructed from a range of sources including documentary and cartographic sources, remote-sensing, geo-archaeological and palaeoenvironmental evidence. The estuaries of the Rother, Brede and the Wainway Channel (which extends across much of southern Walland Marsh) are marked by thick sand deposits which again appear to have been deposited rapidly. The many walls associated with the reclamation of the Wainway Channel have been mapped by Green (1968) and the process

outlined by Eddison (2000).

Beyond the limits of Holocene sedimentation the Hastings Beds/Pleistocene deposits have the potential for sites of all periods. Changes in the wetland environments of the Romney Marsh will have been influential in the distribution of sites in the surrounding region (e.g. the rivers providing transportation routes for the eastern group of Wealden Roman iron working sites).

'During the prehistoric period, natural processes controlled coastal evolution. Indeed by about 6000-3000 years ago, valley and marshland areas adjacent to Rye, lying in a protected position behind the gravel beach barrier, saw extensive accumulations of peat deposits. Following this, the rate of peat accumulation seems to have declined, and then these areas were subject to inundation by the sea. The earliest attempts at reclamation pre-date a well-documented breach in the gravel barrier at about AD 1250. Thereafter, physical processes, such as variations in the supply of sand and gravel, and alterations in the magnitude and frequency of sea-level change and storminess, vied with human activity, i.e. land claim and sea defence works, as agents of landscape change' (Long et al 2007). Recent work by Archaeology South East at Lydd Quarry has revealed evidence of water control for salt making dating to the late Iron Age and early Roman period.

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 out of date set of identical data to that of the ESHER.
3. ***Listed building Register.*** This is held by English Heritage and is a record of all Grade I and II* listed buildings. Many District Councils also hold listed building data alongside data on 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***: SAMs are designated for New Winchelsea, the Royal Military Canal, Camber Castle and Rye Harbour Martello Tower. National and local designations are shown on Fig.. 2.
5. ***The Registers of Historic Parks and Gardens****:* None recorded
6. ***Current Ordnance Survey maps:*** Those at 1:10000, 1:2500 and 1:1250 scales used.

7. ***Historic mapping:*** Largely those studied are the 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:*** A rapid review was made of the preliminary results of the work being compiled by Dr Nicola Banister.

10. ***Placenames 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. No formal study of place names was made for this project.

11. ***Geotechnical reports:*** Information was reviewed where available but no time was available for a comprehensive review.

12. ***Published and grey literature reports:*** This included a review of 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

(Fig. 2)

Examination of the ESHER at the outset of the project (2007) recorded thirty-one site records and three event records (see Grey reports section). These records are summarised in appendix 1.

The HER data suggests that the project area has been utilised from at least the medieval period, with an increase in activity during the post-medieval periods. There is evidence of occupation on the margins of the Levels from at least the Bronze Age and it is likely that the marshes were utilised seasonally for resources such as salt production, prior to their reclamation in the medieval period.

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

The initial review of the HER for the study area at the outset of the study, showed significant areas with no HER records. These are likely to represent a lack of past archaeological research in these areas rather than a lack of sites.

5.2 The NMR

No other databases independent of the ESHER were identified and the NMR was found to contain an out of date set of identical data to that of the ESHER.

5.3 Listed buildings

The ESHER holds point data for Listed Buildings and this records a total of 22 within the project area. Local building lists were not consulted.

5.4 Scheduled Ancient Monuments & Archaeologically Sensitive Areas

The project area contains four Scheduled Ancient Monuments and seven Archaeologically Sensitive Areas, relating to medieval settlements and post medieval coastal defence structures.

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 90% of the project area was found to be farmland/beach, with the remainder being housing/industrial. Evidence was seen for working quarries or extraction areas at Nook Beach and Scotney Bridge.

5.7 Historic Mapping

As this is a large project area, only the two aerial transects were used for the interrogation of historic map data. Analysis was carried out of:

- Ordnance Surveyors Draft c. 1805-1810 (OSD)
- 1st edition Ordnance Survey c.1875 (1st OS)
- 2nd edition Ordnance Survey ,1895 (2nd OS)
- 3rd edition Ordnance Survey c.1915 (3rd OS)
- 4th edition Ordnance Survey c.1930 (4th OS)

Using primarily the Surveyors Draft and 1st edition Ordnance Survey the following types of historic environment features were recorded:

- the extent of villages as an indication of post medieval occupation areas
- isolated buildings and smaller settlements
- industrial and agricultural buildings
- evidence of extraction and quarrying. (The 2nd to 4th Ordnance Surveys were used to track expansion of quarries and identify recent areas of extraction)

The review of the historic mapping demonstrated that the study areas was relatively sparsely occupied and comprised mainly fieldscapes and beach. Occupation/buildings that were recorded related largely to defence, coastguard stations and a series of isolated farms and sheepfolds. Both the Surveyors Draft and the 1st Edition Ordnance Survey were useful in plotting a series of earthworks relating to medieval/post medieval land reclamation and early sea defences.

The review of the historic mapping added a range of information regarding medieval and post medieval occupation of the Rye Bay foreshore. The modern mapping shows that most of these features have survived into the late 20th century with only a few of the isolated farms having been abandoned.

The mapping data was useful in providing evidence of past quarrying but no evidence for quarrying in the 19th century was shown on the OS early editions.

5.8 Aerial data

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

- C5a, targeted at the Storm Beach Deposits between Winchelsea Beach and Rye Harbour focused on an area of low-medium density HER data distribution.
- C5b, targeted at the Storm Beach Deposits at Walland Marsh, an area of medium HER data distribution.

Aerial data sources identified were:

Source	Collection	Vertical	Oblique	Military Oblique
NMR	Various	696 (Transect 5A)	12	123
NMR	Various	243 (Transect 5B)	3	13
ESCC	Various	0	5	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	7	20	0

5.9 Sussex Historic Landscape Characterisation

HLC is still to be completed for East Sussex.

5.10 Place name studies

Not assessed.

5.11 Geotechnical reports

Not assessed in detail.

5.12 Published & grey literature reports

The ESHER was analysed to asses the quantity and nature of published and unpublished reports within the project area. This identified twelve reports, five unpublished contractor grey literature reports and seven reports published in archaeological journals. These are summarised in appendix 3. The specialists were also able to provide comprehensive bibliographies, which have been combined with this DBA's bibliography section.

6 SPECIALIST REVIEW AND RECOMMENDATIONS

Dr Martin Bates, Luke Barber, Chris Butler, Ron Martin and Dr Martyn Waller assessed the draft DBA results and were asked 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 and their observations summarized below.

6.1 Dr Martin Bates, University of Wales, Lampeter

Past levels of impacts

The impact of extraction on the archaeological resource is likely to be restricted to those periods of gravel accretion lying close to the modern surface rather than those preserved at depth within the area. The absence of a geoarchaeological model for individual areas makes it difficult to assess this level of impact precisely. Other important questions that are not addressed relate to the nature of the quarrying in each area – main extraction methods, usual depth of quarrying etc. These will have important implications on the likely impact on subsurface geology as well as archaeology.

Key research questions

The first level of investigation has to be a process-based geoarchaeological model for the study area. In order for this to be appropriate and realistic it is likely that the model should also include information from the surrounding areas. Because of the reliance for much of the interpretative framework on the BGS mapping the earlier history of many parts of these landscapes remains unknown (even in Romney Marsh much of the work has focused on the post 6000 B.P period). Consequently onset of sequence formation, presequence formation landscapes etc are all legitimate research goals. It should be remembered that because both gravel systems form part of large 3-dimensional landscapes that elements of these bodies may well exist closer to the surface in some areas and even wedge out at the ground surface beyond the study region. Only by understanding the full nature of these deposits can we hope to fully assess the archaeological potential of them.

6.2 Luke Barber, Research Officer, Sussex Archaeological Society

Comments on Mesolithic to Modern Periods

Bronze Age

At Lydd quarry a number of scatters of worked flint & FCF were found. These would be in keeping with hunting/fowling. They were always found on the upper parts of the secondary shingle ridges behind the main beach barrier suggesting that these shingle ridges were used to gain access to the marsh resources and that finds of this period are likely to be on the subtly higher ground in the area.

Iron Age

The DBA should look a little more across the county boundary to gain more information to assess the likelihood of remains. Finds at Lydd Quarry 12 and Scotney Court clearly show salt-working sites were potentially quite dense, or at least shifted to make the most of the ever-changing natural topography. The location of such sites is very dependant on such local topography which is still not that well understood. Such sites are of regional importance.

Roman

- Scotney Court is predominantly C1st AD but there are likely to be other Roman salt-working sites. Any such sites would be of local/regional importance.
- It should be made clear that the archaeological remains do not solely consist of briquetage. Excavations have shown not just water management systems, but settling tanks, possibly solar evaporation tanks, evaporation hearths. Evidence of associated occupation/structures would be of national importance.
- It would perhaps be good to point out that the marsh settlements are quite well provided for – Samian is well represented and the presence of a cremation at Lydd Quarry 1 suggests funerary material could be located too, though they are likely to be isolated finds.

Medieval

- The lack of medieval salterns is odd and comment should point out that there may be more as yet undiscovered/recognised. With reclamation, it may be that they were closer to the shore, in areas yet archaeologically investigated.
- Mention should be made of the possibility of buried fish traps etc and boats – i.e. the Rye vessel (though I think that was C16th).
- As Lydd Quarry has shown, the topsoil stripping of large areas often offers the opportunity to study the development of the existing field system by looking at earlier infilled ditches. This is of local to regional significance, though at Lydd the size of the area made it of national importance. Work here also showed the modern field system was a direct development of the initial medieval one. Is there a similar pattern in the East Sussex section of Marsh, which was generally reclaimed later?
- More mention of shipbuilding/repair, using examples from Kent (i.e. Smallhythe) to demonstrate the importance of this hitherto unstudied industry.

Post-medieval

- The development of 19th/20th-century extraction is of interest to industrial archaeologists and should be considered in its own right. Much work could be done using cartographic sources however.
- The study of navigation engineering is important. Site such as Smeaton's harbour and associated works are of national importance. This site should be specifically flagged up in the text.
- LBA and Roman were medium potential; A-S medium; Medieval – high and PM – very high.
- Is it worth outlining just how great modern extraction impact is on not just buried archaeological (and geoarchaeological) remains but the current landscape.
- The period maps are notably empty. It would be worth underlining in the text more work has been done on the Marsh in Kent and this has resulted in a lot of RB and medieval discoveries.

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

Comments on all periods focused on military archaeology

- The HER dataset is particularly weak in aspects of 20th century defence heritage, and therefore it is of no surprise to see that there are no 20th century military sites on the HER for this area.
- However, some of the Martello Towers are listed, although not individually, and although Iden Lock is listed, the Royal Military Canal itself is not.

Iron Age and Roman Periods

- There is little evidence for early defences in this Project Area, with no know prehistoric or Roman defences in the area, however, this may be as much due to the changing nature of the landscape over this period (Pearson 2002).

Key Research Questions

- It is likely that one or more War Department 'defence schemes' survive from the Second World War for the Project Area, but they have not yet been identified or studied. A full desk-top study of these defence schemes and other associated documents will enable us to have a much better understanding of the location of sites within the Project Area. This could be followed up with a detailed field survey to locate some missing features. For example, recent work on the east side of Bexhill has located partly infilled slit trenches and weapons pits (Hibbs, pers. com.).
- The emergency coastal batteries set up in 1940/1 also need further research. There should be a drawn plan of each battery, together with a war diary available at the National Archives. In addition to the well preserved gun position at Pett, recent fieldwork has suggested that there could be many elements of these batteries surviving as current structures, albeit in some cases much altered.
- There needs to be more research, both desk-top and in the field, for surviving military sites that were transient in their nature. Examples of these would be anti-aircraft, searchlight and barrage balloon sites, together with camps, training areas and storage sites. A national desk-top study (Dobinson 1996) may provide a starting point for this.
- There also needs to be further research carried out on the Nodal Points created in 1940/41, to locate missing extant elements of the defences. Within the Project Area the Nodal Points at Rye & Winchelsea should be investigated. The civil defence sites in Rye are also in need of further study, although there has been a limited survey (Kirkham 2002).

6.4 Dr Martin Waller, Kingston University, Romney Marsh Research Trust

General Comments

- In general terms the main omissions identified from the report in terms of the sources consulted come under: 12 published reports. This is perhaps not surprising given the voluminous literature relating to the area defined for this assessment, and with respect to work recently published. Reference should be made to Long *et al*. 2007 – definitive volume arising from the

Durham/Kingston/Liverpool ASLF work.

Key Research questions

Gaps in information

- The early Holocene. The potential for reconstructing early Holocene landscapes from the area is demonstrated by the work of Waller and Kirby (2002). This is dependent on deep boreholes and the opportunity should be taken to examine material obtained by such means as a result of development/construction activities, or a specific research project could be instigated.
- Earthworks. Many of the earthworks recorded in the area defined for this assessment in the 1960s (e.g. Green 1968) have been removed over the last 50 years. A comprehensive survey with the aim of creating of a database of information could usefully be undertaken. Information on matters such as location, dates of repair and removal (in one case relocation), along with data relating to age and means of construction, requires collation.

Potential yet to be fully exploited

- Broomhill Level. The juxtaposition of deposits representing a variety of palaeoenvironments and archaeology on Broomhill Level is unique for the Romney Marsh area (see Appendix), with the potential of this area enhanced by its close proximity to the late prehistoric and medieval landscapes excavated SW of Lydd. This area would be an ideal focus for research within a suggest theme for future research on Romney Marsh general; 'the extent to which environment change was deterministic in dictating human response, against the evidence for human endeavour in resisting and/or controlling the natural trajectory of marshland evolution'.
- East Guldeford Level. The raised bog deposits here are of international importance with considerable further research potential, for example in studies of palaeoclimate and tephra distribution; its presence is likely to have impacted on the early settlement and reclamation (Allen 1996) of the marshland and the deposits may have been heavily exploited as fuel (see above). Research to determine its extent and state of preservation is a priority.
- Camber Castle/Rye Harbour gravel ridge complex. The state of preservation of the gravel ridges in the vicinity of Camber Castle is in contrast the much greater expanses of gravel in other parts of the depositional complex (e.g. much of Dungeness Foreland). These ridges are therefore of high geomorphological value. The area is likely to be important in future geomorphological research into the processes controlling beach ridge formation, for example, they may allow competing hypotheses as to the importance of sea level change (Lewis & Balchin 1940, Lovegrove 1953), versus variations in storm intensity (Long & Hughes 1995), in determining ridge morphology to be tested.

6.5 Ron Martin, Sussex Industrial Archaeology Society

The Rye Bay area was founded to contain a large number of industrial and modern historic sites not recorded on the HER. These predominantly relate to agricultural sites such as sheepfolds, maritime sites such as coastguard stations and a fish market, light industrial complexes, especially in the Rye Harbour estuary, and a small number of kilns and brickworks. Also noted were a number of features relating to water management and sea defences.

The area has been subject to extensive past gravel extraction and it is likely many of these areas contain structures and features relating to this industry. Further expansion or reworking of these areas will have a high potential to impact such features.

7 SUMMARY AND DISCUSSION BY PERIOD

The archaeological background is provided by recognised periods as follows

Three Age System	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	The first farmers (Early Neolithic)
Neolithic	4,000 to 2,000 BC	A world of monuments (later Neolithic – Early Bronze Age)
Bronze Age	2,000 to 700 BC	Ordering the landscape (later Bronze Age – early Iron Age)
Iron Age	700 BC to AD 43	The approach of Rome (later Iron Age)
Roman	AD 43 to 410	
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-phases 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. 800,000 – c.10,000 BP)

(Fig. 3)

This period coincides with the latter part of the Pleistocene geological period and is characterised by repeated glacial periods or ice ages separated by warmer interglacial periods. During the glacial periods, glaciers covered all but the southern parts of Britain (down to approximately the present River Thames) and during the height of the interglacials temperatures were warmer than those of the present day. The extreme temperatures led to extensive modifications to the topography with valleys carved out and mass deposits of sediments. The present landscape is largely the result of these Pleistocene changes and Palaeolithic remains often lie deeply buried or transported from their original positions. This immense period of time (over 800,000 years) saw the 'arrival of one hominin species, their evolution into Neanderthals, extinction of the Neanderthals and arrival of the first modern humans'. (Wenban-Smith, 2007). The last main glacial period was at is height approximately 16,000 years ago and sea level as much as 100m below that of today. A sudden rise in temperatures approximately 13,000 years ago was followed by nearly 2,000 years of slowly cooling temperatures before a sudden decline in temperatures brought in the colder so called Loch Lomond Stadial around 11,000 years ago. This colder period lasted for a further 1,000 years before the final retreat of the glaciers around 10,000 years ago. Current evidence suggests that humans recolonised Britain by about 12,000BP during this later Upper Palaeolithic period but evidence for human activity in the south east is rare.

The Rye Bay area lies between the two lines of higher chalk hills that until being breached around 400,000 years ago formed a permanent land bridge between the continent and what today are the British Isles. The geomorphological template left at the end of the Pleistocene is thought to have comprised a broad bay between the cliffs at Pett and Hythe. A complex of sedimentary deposits, including the storm beach gravels now covers much of the former bay and these, as described

above, have formed during the Holocene and do not contain any *in situ* Palaeolithic remains.

The pre-Holocene surface can be reconstructed from the extensive borehole evidence available from the Brede valley and around Rye. In particular, the location of the pre-Holocene channel of the Tillingham (at > -20 m OD) has been partially mapped and the Late Pleistocene/Early Holocene deposits within this channel investigated at Tilling Green (Waller and Kirby 2002). However, the lack of deep borehole records means that knowledge of the pre-Holocene surface west of Rye is very limited though (outside of the channels) it is thought to lie at < -20 m OD.

The ESHER records the finding of 'probable' Palaeolithic artefacts (date not given) [MES 3911] in a cave at Pett on the very western edge of Rye Bay study area. The location of these finds (for which more detail needs to be added) coincides with the nearest outcrop of the Pleistocene template described above. Although outside the area of the aggregate resource study area, the finds indicate the importance for an understanding of the formational history of Rye Bay, as evidenced by the storm beach gravels, in order to understand the environmental context for these Palaeolithic remains.

7.2 Mesolithic (c. 10,000 – 6,000 BP)

(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. It is only around 10,000BP that clear evidence for human activity is found in Britain and given that sea levels remained low during this c.1,500 years, it is likely that much of the significant evidence for human activity of this early phase of recolonisation either lies on the sea bed of the English Channel or deeply buried beneath later coastal Holocene deposits.

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 isolated Mesolithic groups in Britain leading to the development of indigenous cultures different from those on mainland Europe.

In Sussex, Mesolithic groups appear to have utilised all geological and topographical zones, but archaeological evidence, perhaps indicative of semi-permanent settlements, is more abundant 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. Such features have been recorded at sites such as Selmeston, which is located on sand geology (Curwen, E. 1938).

No finds have yet been recorded from the Mesolithic period within the Rye Bay project area and this is consistent with the present model for the dynamic development of the Rye Bay gravels and back marsh from this period onwards as sea levels rose. It is possible that evidence for this period may lie buried between the Pleistocene template of beach deposits below and the Holocene gravels, silts and peats above.

While no sites may have been recorded in the designated area, numerous Mesolithic sites occur on the adjacent upland southwest of Rye and unusually this includes an excavated site with accompanying environmental evidence (Holgate and Woodcock, 1988, 1989, Waller 1993, Grant 2007).

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). Possibly as a result of this technology came an increase in forest clearance resulting in an increase in erosion and rapid choking of the river valleys resulting in floodplain development. 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 Rye Bay area.

Date estimates from recent research (Long *et. al.* 2007*)*, suggest that peat was forming behind the gravel storm beaches from approximately 6000 years ago until 3000 years ago, when they became inundated by tidal waters, which deposited thick layers of marine clay. It is possible therefore that Neolithic remains could exist within or on some elements related to the peat formations and which are now buried beneath the later marine clays.

As with the earlier periods, no sites or find spots are recorded for the Neolithic period and the degree to which remains from this period may survive within the Rye Bay area is still the subject of research. While there is no direct archaeological evidence, the extensive pollen record from the peat deposits certainly indicates small-scale clearance from the *Ulmus* decline (locally dated to *c*. 3700 BC) onwards. This activity clearly falls within the Neolithic.

The Broomhill Beach deposits which formed as part of a shingle spit developing in a north-easterly direction across Rye bay have, using optically stimulated luminescence (OSL) dating of the shoreface sands beneath the gravel and radiocarbon dating of peats above gravel, been shown to been formed between *c*. 2700 BC and *c*. 2200 BC near Broomhill Farm and at the Midrips respectively. The gravel surfaces therefore have the potential for sites from the Neolithic onwards (e.g. Needham 1988, the Lydd Bronze Age axe hoard location being geomorphologically part of the same beach complex as the Midrips). Where these deposits are exposed at the modern surface this potential as low due extensive agricultural/military disturbance, though the work of Barber (1998), for example, shows the potential where overlying sediments are removed prior to gravel extraction. As the latter statement implies these deposits are more extensive than the surface outcrops would suggest.

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 end of the Bronze Age, population pressures, limited land and a wetter climate resulted in the emergence of a tribal society and defended settlements, such as Seaford Head (Hamilton, S. 2003).

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 droveways 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 droveways would have attracted settlement and further forest clearance along their routes.

Pollen evidence from the western valleys adjacent to Romney Marsh indicate that the early Bronze Age appears to mark the beginning of the permanent destruction of the primary lime dominated woodlands found over the adjacent parts of the Weald e.g. lime disappears from the pollen record over a *c*. 700 year period from 2000 BC – with the timing of clearance and pattern of subsequent land-use influenced by the nature of parent material (Long *et al*. 2007, Waller & Schofield 2007). The limited number of recorded scatters of finds and structures (barrows and ditches) in the wider landscape suggests a limited occupation, or non-intensive utilisation of landscape resources, but this may reflect a lack of targeted archaeological investigation.

The gravel barrier that had developed by this time from present-day Fairlight toward Dymchurch appears to have provided access to coastal and wetland resources for Bronze Age people occupying the area. Bronze Age communities would have been attracted onto the marsh for the variety of available coastal/saltmarsh foodstuffs, i.e. fish, crabs, shellfish and wildfowl. The barrier and shoreface may have been easier to navigate than a difficult and dangerous short-cut across alder floodplain forest, tidal marshes and mudflats of the back-barrier environment.

No early Bronze Age sites or finds are recorded by the ESHER within the project area, however their potential to exist is highlighted by the dating of the Broomhill Level Beaches to between *c*. 2700 BC and *c*. 2200 BC. The gravel surfaces therefore have the potential for sites from the Neolithic onwards (e.g. Needham 1988, the Lydd Bronze Age axe hoard location being geomorphologically part of the same beach complex as the Midrips). Where these deposits are exposed at the modern surface this potential as low due extensive agricultural/military disturbance, though the work of Barber (1998), for example, shows the potential where overlying sediments are removed prior to gravel extraction. As the latter statement implies these deposits are more extensive than the surface outcrops would suggest.

The Lydd group of five bronze axes were unearthed from gravel workings at the same locality in Lydd, Kent. The similarity of the axes to known finds from dated contexts date them to *c.* 1800-1600 BC. Axes of this type have been found elsewhere in the UK and Ireland, though group finds are rarer. The Lydd group is possible evidence of trade in axes manufactured in Britain and Ireland with the continent. As the stratigraphic context of the axes was not fully recorded during the gravel extraction there is some doubt as to whether the axes were intentionally buried on land or the result of a wrecked ship.

The ESHER holds one record for the later Bronze Age period, the finding of a spearhead near Pett. [MES2162]. The area is likely to have been utilised as it was in earlier prehistoric periods as temporary/permanent settlement areas utilising the resources of the surrounding marshland.

7.5 Iron Age (c.750 BC – AD 43)

(Fig. 4)

The Bronze Age became the Iron Age as iron tools replaced bronze ones. Iron tool making requires a more advanced knowledge of raw materials, furnace temperatures and forgery techniques. Centres of iron production in the prehistoric world were found where the main ingredients (iron ore, materials for furnace construction, abundant fuel for furnaces and technically skilled people) of iron production occurred. The High Weald in south east England, inland from Rye Bay, was one such area of iron production. Archaeological evidence of iron production during the Iron Age in the Weald is scant as it occurred on a small-scale and parallel with agriculture. By the Late Iron Age the industry was well established with iron being exported to the continent.

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).

Following on from the Bronze Age, pollen evidence suggests cultivation may have reached a maximum in the Middle Iron Age around the margins of Rye Bay and Romney Marsh. Pollen evidence from this period suggests that clearance was not total, rather a mosaic of cultivated areas, managed/regenerating woodland and mature woodland developed.

The ESHER records only one site from the Iron Age within the project area; a concentration of pottery, found near the western foreshore at Pett. Archaeological finds in the wider landscape also suggest only the marginal occupation of the marsh. Similar to the Bronze Age, the gravel barriers provided a dryland route for accessing back-barrier and wetland resources. Belgic pottery and other Iron Age finds have been discovered in the interior of the marsh.

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

The Romans are likely to have viewed Rye Bay Romney Marsh principally as a way in to the iron resources of the eastern Weald. The Rother and Brede Rivers provided the Romans with a transport route between the iron-bearing geology of the eastern Weald with the sea. The Romans knew of the British iron industry established by earlier Iron Age peoples and were quick to take over and expand the industry during the mid-1st century AD.

During the Roman period, strategically and economically, the area appears to have been a 'backwater' and only small-scale settlement of Romney Marsh itself appears to have taken place during the first and second centuries AD.

Expansive saltmarshes behind the protective gravel barrier would have provided excellent grazing for sheep and cattle. Fish and wildfowl from the marsh would also have supplemented the diet of the population who lived in the area.

The marsh is also likely to have been utilised for the production of salt: evidence of this has been recorded at Dymchurch, Lydd and Ruckinge in Kent. At these sites seawater would have been collected in shallow pools where evaporation would have taken place allowing salt to precipitate out of solution. Salt-enriched water may also have been boiled in large vessels to speed up the process. The archaeological remains of these works consist of crudely-formed baked bricks and pottery (*briquetage*).

The ESHER contains only three records for the Roman period, an iron smelting site and the finding of coins at Pett. The lack of archaeological evidence suggests that the marshland may only have been used for salt production and grazing during the warmer months of the year. Permanent and expansive settlements on the marsh in the later Roman period (3rd century AD onwards) may not have been established due to attacks by pirates and raiders.

7.7 Anglo-Saxon & medieval (AD 410 – 1550)

(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 following summary is largely based on the published research of the Romney Marsh Research Trust. A key aim of this resource assessment is to find ways to ensure that the results of detailed research are integrated into the HER in order that the HER can inform future research and curatorial decision-making.

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.

Romney Marsh having only been marginally occupied by the Romans was probably abandoned. Occupation of the marsh during this period may well have been too risky with continued sea raids and evidence of settlement during this period overall is scarce in East Sussex, but is attested by cemetery sites, which have been found to be in close proximity to the associated settlement. Archaeological evidence of early Saxon settlement around the wider landscape is sparse and concentrated around Lympne and West Hythe.

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 possibly such as Guldeford were formed, probably starting as little more than a cluster of family farms, but gradually increasing in size over the following centuries. Certainly by the 8th-and 9th-century AD land ownership documents (charters) kept by Christ Church, Canterbury reveal that the north east of the Romney Marsh was being actively settled. Evidence of maritime trading and occupation has come from the excavation of the eighth- and ninth-century AD site known as *Sandtun* in Kent.

This tidal inlet used previously by the Romans was shrinking due to siltation and a new outlet for the Rother through the shingle had formed at Romney. Siltation appears to have been unstoppable during the 10th and 11th centuries. During the reign of Edward the Confessor (1042-1066) a port at Hythe was established to replace the one at Lympne. During the late Saxon/Early Norman period trade and transport across the channel was becoming increasingly important to the English economy and a number of ports on the south coast were granted privileged status - becoming the *Cinque* Ports.

Aside from the wealth of natural foodstuffs available from the back-barrier wetlands and shorelines of Romney Marsh, people during the Saxon period also apparently scavenged whales washed up on the shore. The remains of two whales were found in 1994-95 during gravel extraction at Denge West Quarry, near Lydd. The remains were found on top of inter-tidal flat deposits which had been buried by later shingle ridges.

By the mid-11th century AD a large portion of Romney Marsh had been reclaimed from the sea and the population of the area was growing. The town and *Cinque* port of Romney and its inhabitants of sailors and fishermen were recognised during the last phases of Saxon rule and immediately by William the Conqueror, to be of strategic and economic importance. Following the Norman Conquest the town and port of Romney flourished commercially and culturally due to maritime trade and political associations with continental Europe. This affluence is architecturally visible in Romney with the differences in style and size between the Church of St Clements in Old Romney and the massive Norman Church of St. Nicholas in New Romney. This affluence also encouraged further reclamation and occupancy of the marshland. During the twelfth century AD the port of Romney was already being affected by estuarine siltation, with trade being re-directed to Old Winchelsea that had been established on a gravel barrier and tidal inlet to the south of Rye.

The following Medieval period saw a dramatic struggle between the population of Romney Marsh and the combined forces of the sea, sediment and deadly disease. This was an intense period of dramatic environmental, economic and social activity on Romney Marsh. Reclamation and occupation of the marsh continued to spread out south-east from land and sea walls constructed by the Saxon/Norman population and better drained areas such as the exposed gravel barriers around Lydd. Although creating productive land for grazing and crops, reclamation accelerated the decline of the port at Romney and increased the amount of land at risk from flooding. This period also saw a shift in the focus of commercial and cultural activities on the marsh from Romney to the 'new' towns of Old Winchelsea and Rye. To combat siltation the people of Romney initiated an ambitious plan, with the construction of an artificial river ('The Rhee') to flush the silt from their harbour. The Rhee channel was excavated and cut across land that had already been reclaimed for a distance of over 12 km. It worked by collecting and storing water from land drains and the River Rother near Appledore, which was released via sluices into the Romney inlet at low tide. This huge engineering project appears to have been successful, though the need for a 3 km extension in AD 1258 shows that the tidal inlet at Old Romney was already infilled. The Rhee appears to

have reduced siltation in the inlet up to c. AD 1400 when it was abandoned.

Archaeological excavations preceding gravel extraction have provided a large amount of information on the Medieval marshland landscape and economy of Lydd during the 13th-14th century AD. Settlement and drainage of the marshland to the south-east of Lydd utilised the natural landforms. Small farmsteads (5-6 ha) were situated adjacent to trackways that followed the orientation of elevated and better drained gravel barriers. Existing tidal and stream channels were incorporated into the artificial ditch system that divided the fields. The few remains of buildings that have been preserved indicate that they were small, timber-framed buildings with straw or reed thatched roofs. The peasant farmers who occupied the farmsteads survived on a mixed agricultural regime; keeping pigs, cattle and sheep and cultivating cereals and fodder crops. Manure and waste products were collected and used for manuring the lands. Agriculture was also supplemented by utilising the rich natural wetland and coastal resources that existed at the time.

While deposition led to the demise of Romney the opposite process, erosion, led to the rapid and total destruction of Old Winchelsea. Coastal erosion during this period broke through the gravel barrier that had protected the reclamation efforts of the marshland in the preceding centuries. By the late 11th century AD the port and town of Winchelsea had been established on the gravel barrier spanning Rye Bay. This new town situated nearer to the large *Cinque* Port of Hastings and the inland town of Rye had grown rapidly, competing with Romney for maritime trade and traffic. The harbour of Old Winchelsea was probably only a gravel-spit protected tidal inlet, which had formed as the gravel barrier broke down. The spit would have developed as outgoing tidal water from the back-barrier moved gravel seaward before it was deflected east by longshore drift. The spit that sheltered the harbour of Old Winchelsea proved unstable under the coastal conditions that affected the coastline in the latter-half of the 13th century AD. The supply of eastward traveling shingle had been reduced and the period is recognised as having been exceptionally stormy. These two factors degraded the protective spit and exposed the town that had developed on the gravel barrier to wave erosion. The town of Old Winchelsea and reclaimed lands nearby were being affected by increased flooding by c. AD 1240. Import taxes were raised for the construction of sea defences and maintaining the harbour. In AD 1250 and AD 1252 severe storms damaged much of Old Winchelsea. Later storms eroded the town further, destroying the Church of St Thomas the Martyr, and pushed sea water inland as far as Appledore (12 km inland). Continued storminess in the English Channel during the late 13th century AD (particularly AD 1287/8) destroyed the remains of Old Winchelsea and so extensively flooded Walland Marsh and inland floodplains to force the course of the Rother into its present position. New Romney also suffered heavy flooding, sweeping sediment into the harbour and town adding to the settlement's problem with siltation in the inlet.

Although Old Winchelsea was destroyed, the profitability of its maritime trade (largely importing French wine for the London market) led to the construction of New Winchelsea by King Edward I. This new town was planned and built on a rectangular grid pattern on a nearby hill, well above the sea. New Winchelsea had a harbour in the inlet created by the breakdown of the Rye Bay barrier.

During the 15th Century the overall population of Romney Marsh declined to a fraction of its Early Medieval size. This was due to a combination of local and national environmental, social and economic factors:

- The Black Death that arrived in AD 1348 resulted, by the end of the fourteenth century, in the death of around half the population of England. This changed the structure of society greatly, resulting the development of a class of land-owning wealthy peasants or 'yeomen' farmers.
- Coastal flooding of land reclaimed during the 12th and 13th century. The subsequent reclamation of this land and maintenance of sea walls became more expensive due to the lack of labour.
- A shift from small farmstead arable agriculture to pastoral farming. A landscape of flocks of sheep and herds of cattle became more profitable and required a smaller labour force than

arable cultivation.

Nonetheless large landowners and their tenants restarted reclamation of marshland areas affected by the late 13th century flooding. Evidence of this is attested on the ESHER which records a series of earthworks and dykes at Walland Marsh and Broomhill Level. Due to the change in land-use however, much larger fields were created for grazing. These reclaimed lands were well situated to supply wool to the established Wealden cloth industry which exported textiles to the continent.

Broomhill during the Medieval Period had been a marginal area of shifting marshland reclamation. Having been settled in the 11th Century the land had been successively reclaimed for agriculture and flooded by the sea. The incursion of seawater and destructive flooding in the late 13th century led to continued problems with wall and drainage maintenance. Large ecclesiastical landowners (Robertsbridge Abbey) continued paying for reclamation efforts in the 15th Century to secure profitable grazing land. By the 16th Century the Broomhill area had largely been abandoned. Archaeological excavations have focused in the area on Broomhill Church (TR 988183) and provided more information on the Late Medieval abandonment of the area. The lower courses of stonework and foundations of the church have been preserved by burial beneath estuarine sediments. Excavation of the church revealed:

- No structures or remains were found dating to before the mid-13th Century - possibly suggesting construction following the destruction of Old Winchelsea.
- Modification of the structure occurred during the 14th-15th centuries
- The church was enlarged in the early 15th century – possibly reflecting a period of prosperity.
- By the early 16th century church services had finished. Fairly soon the stained-glass windows fell in, rubbish accumulated on the floor and seawater flooded the floor, depositing fine-grained sediment, before the tiled roof collapsed.
- Following reclamation of the surrounding land the walls were robbed for their stone.

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

(Fig. 7)

The post-medieval period is dominated by a situation of negative population growth in marshland parishes, with burials exceeding baptisms (Dobson, 1998). At the time, increased mortality and ill-health of the inhabitants of coastal wetlands in southern England was attributed to the stagnant water and unpleasant smelling air of the wetlands. We know now that the inhabitants of the marsh were suffering from a form of malaria. Rather than the air itself it was the abundance of man-made ditches and natural wetlands of the marshlands that provided the breeding habitats for *Anopheles* mosquitoes.

Reclamation of saltmarsh across Walland Marsh since the 14th century rapidly increased up to the mid-16th century, reducing the volume of tidal flow within the Rother estuary. By AD 1560-70 shipbuilding/repairs by the side of the Rother in Appledore (TR 956295) and Reading (TR 923304) was proving impossible due to siltation. Poor drainage in the upper Rother Estuary resulted in large areas of land drowned entirely or suitable only for summer grazing. The inability of the flow of the Rother to scour away sand and silt deposited by the tides, had by the late-16th century led to the deterioration of Rye Harbour and the economy of the town. Similar to the efforts made by inhabitants of New Romney three centuries earlier, the inhabitants of Rye started a long (and in the end unsuccessful) campaign of river management and artificial drainage to save the harbour from siltation.

High rates of death and disease caused by malaria and difficulties in maintaining the poorly-drained reclaimed land made life difficult for the inhabitants of Romney Marsh in the eighteenth century. Nonetheless, the rich grazing pasture of the reclaimed marshland provided considerable potential for investment and profit. To overcome the problem a complex relationship developed

between landowners who lived in upland villages and owned property in both upland and marshland areas (Davison, 2002). Sheep and cattle were moved seasonally between these areas. On the marshland itself, landowners were virtually absent, with the land and livestock being maintained by 'lookers'.

The development of the post-Medieval landscape into large open fields capable of sustaining large numbers of sheep led to significant numbers of Lookers being employed in the marsh. A 'looker' often had to tend the flocks of several landowners which led to the need for 'Lookers Huts' from where shepherds could operate from (Reeves & Eve, 1998). From the 18th Century to the mid-20th century these small dwellings were inhabited by shepherds (and even their families) across Romney Marsh.

The post medieval period ESHER records are also dominated by military structures, starting with a chain of artillery batteries built during the Elizabethan period and culminating with the impressive chain of Martello Towers, forts, batteries and barrack complexes built against the threat of invasion by Napoleon (1793-1815).

By the Tudor period, the coastline was changing significantly and this together with the introduction of cannon, led to the construction of the artillery fort at Camber Castle in 1512-14 by Sir Edward Guldeford with a round blockhouse 20m across, with gun ports to defend the mouth of the River Rother. Between 1539 and 1540 Henry VIII strengthened the site, by increasing the height of the blockhouse, which became a central keep, and surrounding it with an octagonal court. Further modifications in 1542-3, added more height to the central keep, a D-shaped addition to the outside of the gatehouse, and four large D-shaped bastions were added to the outside (Biddle et.al. 2001).

By the 1620's the coastline and Rother had migrated out of range of the Castle's guns, and having outlived its purpose, the garrison was disbanded in 1637. In 1642 the guns were removed and the Castle was dismantled by Parliamentary forces. Rye had become an important place of embarkation for the armies of Henry VIII and Elizabeth I, and was protected by gun batteries at the Gun Garden and The Strand (Mayhew 1984).

After the Battle of Beachy Head in 1690, the *Anne* was beached at Pett. The *Anne* was the English only ship lost in the battle, and after being heavily damaged was towed eastwards by the *York*. The *Anne* was beached at high tide and it was thought she could be saved, however the French fleet attacked Hastings and Rye on the 5th July, and her captain decided to burn the *Anne* to avoid her being taken as a prize. The remains of the *Anne* are still extant at Pett (Marsden 1987).

During the early 19th century, Romney Marsh was literally cut-off from the rest of England by the construction of the Royal Military Canal. The 28-mile (45 km) canal between Hythe in Kent and Rye in East Sussex was dug as a defence against French forces in the Napoleonic Wars. The canal was excavated mainly by a workforce called 'navvies' or 'navigators' who travelled around the country, providing the manual labour for canal construction/railway cuttings during the Industrial Revolution. The canal was started in October 1804 and finished within two years. The construction of the defence works and gun emplacements (spaced every 500 yards) took longer. The complete defensive structure was finished in 1812, by which time it was redundant as the French navy had been defeated at Trafalgar (1805) and the threat of invasion had gone. Although never tested in warfare and largely redundant by its completion construction of the canal was beneficial for land drainage, and remains an important flood-defence structure and reservoir for Romney Marsh.

During the 18th century the only cannon remaining at Rye were positioned in the Gun Garden, whilst Ypres Tower was being used as the town's prison. A number of gun batteries were built between Winchelsea and Rye in the later 18th or early 19th centuries.

The Royal Military Canal was constructed between 1804 and 1809, and starts at Cliff End, Pett, before following the northern edge of Pett Level to Winchelsea, and then on to Rye. Here the River Rother continued the line of the Royal Military Canal northwards to Iden Lock where the Rother turned eastwards and the Royal Military Canal headed off to the north around Romney Marsh to Hythe in Kent (Hutchinson 1995). At least one battery was built near Winchelsea to support the line of the Royal Military Canal.

A line of 73 Martello Towers was constructed from 1805 to 1808 between Folkestone in Kent and Eastbourne, with a further tower added at Seaford in 1808 (Clements 1999). The Martello Towers were round brick-built towers, two storeys high, with a cannon mounted on the roof. They were constructed at regular intervals along the coast, and designed to be inter-supporting. Of the 47 Martello Towers built in Sussex, only 10 survive today (Telling 1997). Also during the French Revolutionary and Napoleonic Wars, there had been a huge influx of soldiers into East Sussex to counter the possibility of an invasion. To accommodate these, barracks were built at many locations, including a barracks at Rye, and another at Winchelsea (Longstaff-Tyrrell 2002). Similar to the Royal Military Canal however, the forts were never tested by an invading French force. The towers were used in the later 18th and 19th centuries by customs men and housing local coastguards and fishermen. Many of the towers have been washed away by the sea or purposefully demolished.

In the first half of the twentieth century, prior to the Second World War, sheep farming continued to dominate the landscape of Romney Marsh. During World War 1, some large open fields provided runways for aircraft Fig.hting over the trenches in northern France and Belgium. During the First World War the impact on this area was limited. If any coastal defences were built, there is no trace of them today.

The Second World War

Romney Marsh found itself in the frontline of the defence of Britain during the Second World War. One of the closest points to Nazi-occupied France, Romney Marsh looked to be one of the most obvious places for a German invasion force to land. As a result, the foreshore, beaches and marshlands were turned into a defensive fortification. Barbed wire and bunkers ringed the shoreline, minefields were laid, bunkers were built along the Royal Military Canal and plans for the flooding of the marsh in the event of attack were drawn up. One part of the marsh was actually flooded: 700 acres (280 ha) of grazing pasture on Pett Level (TQ 903 154) was flooded by breaching the sea wall.

With the threat of invasion the coastal defences were enhanced by the construction of emergency coastal batteries at Pett, Winchelsea Beach and at Jury's Gut whilst the beaches were defended by pillboxes, barbed wire and minefields, together with concrete anti-tank cubes and beach scaffolding. The entrance to Rye Harbour was protected by a number of guns and searchlights. Rye and Winchelsea were declared Nodal Points and the Levels between Pett and Winchelsea were flooded, whilst the entire populations of Winchelsea Beach and Camber were evacuated.

There were also many other forms of defence that were more transient in nature, such as anti-aircraft gun sites, searchlights and barrage balloons, whilst some locations in the region were used for training. There will be little surviving evidence for these installations, although some do survive, whilst many others probably exist un-recognised. With the advent of total war, and the increasing importance of aircraft, defence installations became much more widespread, whilst there was a dramatic increase in civil defence sites. These were mostly constructed in towns and villages, and included air-raid shelters, air-raid wardens posts, fire-watchers posts and emergency water supply tanks. Many of these were removed soon after the war, but a number still survive, although they are frequently not recognised and therefore are often removed with little regard for their preservation or recording. In 1942 a decoy site was established around Camber Castle, initially as an SF site, but later it was changed to a QL site (Dobinson 2000).

Prior to this project the ESHER was totally lacking in 20th century military structure records, this will be addresses by the creation of 93 new records based on information supplied by the specialists.

Historic Extraction

(Fig. 8)

The Rye Bay area is likely to have been targeted from at least the late 19th century for commercial gravel extraction. This extraction is likely to have started in a piece-meal fashion possibly triggered when the Martello Towers were constructed. In the 20th century this extraction grew rapidly, with virtually all the gravel resource having been targeted by large quarries at Rye Beach, the Nook and Scotney. This material was used for foundation works on highways and construction sites, sea defences.

8 SYNTHESIS AND CONCLUSIONS

The assessment of the Historic Environment resource within the Rye Bay project area has shown that it is particularly rich in terms of archaeological remains from the medieval period to modern day. The area is particularly rich in post medieval sites and the current landscape is characterised by surviving elements from these periods.

Importantly the area has been studied by a number of researchers including those working with the Romney Marsh Research Trust and ALSF-supported teams from Durham and Kingston Universities, who have provided a comprehensive baseline understanding of the historic landscape through multi-disciplinary studies.

Aggregate extraction from these beaches has impacted directly on their palaeo-environmental, archaeological and historic landscape character. This area provides a rich resource for understanding the 'shifting balance between natural and human processes as agents of landscape change' (Long, *et al* 2007). Due to the relatively early date of extraction, few archaeological records were made and there is not the same level of information as has been retrieved from extraction in Kent around Lydd.

This resource assessment has shown the importance of the research work undertaken by the above-mentioned teams and the need to ensure that the results of this work are integrated into the HER and made available for future research and for spatial planning decision-making.

The GIS and associated databases for the Rye Bay have been made available to ESCC and the Archaeology Team is looking at options to integrate the data with the existing HBSMR system.

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 & Mesolithic	Low
Neolithic & early Bronze Age	Low
Late Bronze Age & Iron Age	Low - Medium
Romano-British	Low - Medium
Anglo-Saxon & medieval	Medium
Post-medieval	Very high
Modern	Very high
Industrial	Very high

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 in part reflects the level and quality of past archaeology research in this area but also the management of the HER. 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.

It is unfortunate that HLC was not available as it was helpful for the Folkestone Beds and Ouse Valley project areas in providing some context for understanding the character of the landscape and the likely date of its components.

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 require a more detailed assessment – it is possible that this will be added to by the English Heritage supported Rapid Coastal Zone Assessment due in the near future..

Most other post-medieval sites are of local/regional importance. Again, individually many may be considered of low importance, but when grouped together might be considered to be of local/regional importance (e.g. farm complexes, water management features, and extractive industries).

Assessing archaeological potential

The potential of Rye Bay based on the plotted information is characteristic of what can be predicted for an area of sedimentation around estuaries or beach zones. In this case only the most recent archaeological periods/features are accessible in any substantial number primarily due to the excessive thickness of sediment in such areas. The thickness of sediment sequences cannot be ascertained in detail at this time due to the non-availability of borehole data from the BGS archive. It has been recommended by specialists for this DBA that a geoarchaeological model may well predict the presence of archaeology from a range of periods from the latest Pleistocene to post Medieval. This would suggest that the archaeological potential of the earlier periods of the area is under represented. However it should be noted that because of the coarse grained characteristics of the sediment reworking and abrasion will be common in such circumstances.

8.1 Potential effects of proposed development and mitigation

We are not aware of any current proposals for extraction in the area assessed, 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 significant archaeological remains, 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

9 REFERENCES & BIBLIOGRAPHY

Allen, J.R.L. 1996. The sequence of early land claim on the Walland and Romney Marshes, southern Britain: a preliminary hypothesis and some implications. *Proceedings of the Geologists' Association*, 107, 271-280.

Barber, L. 1998. An early Romano-British salt-working site at Scotney Court. *Archaeologia Cantiana*, 118, 327-353.

Biddle, M., Hiller, J., Scott, I. & Streeten, A. 2001 '*Henry VIII's Coastal Artillery Fort at Camber Castle, Rye, East Sussex'*, London, English Heritage.

Burgess, P. & Saunders, A. 1990. '*Battle over Sussex 1940*, Midhurst, Middleton Press.

Burgess, P. & Saunders, A. 1994. '*Blitz over Sussex 1941-42*, Midhurst, Middleton Press.

Burgess, P. & Saunders, A. 1995. '*Bombers over Sussex 1943-45*, Midhurst, Middleton Press.

Butler, C. 2007. '*East Sussex Under Attack: Anti-invasion sites 1500-1990*, Stroud, Tempus Publications Ltd.

Clements, W.H. 1999. '*Towers of Strength: Martello Towers Worldwide*, Barnsley, Pen & Sword Books Ltd.

Cobb, P. Undated. '*Coast Defences of the U.K. in service during WWII*, unpublished report.

Culley, J., Livingstone, D., Duane, W., Waller, M.P. & Yates, B. 2004. *Rye Explorer*. A Geographical Information System for the English Heritage funded project 'The Evolution of the Port of Rye, Romney Marsh, Sussex', Kingston University.

Dobinson, C.S. 1996. '*Twentieth Century Fortifications in England'*, Council for British Archaeology.

Dobinson, C. 2000. '*Fields of Deception'*, London, Methuen Publishing Ltd.

Dobinson, C. 2001. '*AA Command'*, London, Methuen Publishing Ltd.

Eddison, J., 1995. Romney Marsh: The Debatable Ground. Oxford University Committee for Archaeology, Oxford. No. 41

Eddison, J., 1998. Catostrophic changes: the evolution of the barrier beaches of Rye Bay. In: Eddison, J., Gardiner, M., Long, A. J. (Eds.), Romney Marsh: Environmental Change and Human Occupation in a Coastal Lowland. Oxford University Committee for Archaeology, Oxford, pp 65 – 88. No. 46.

Eddison, J. 2000. *Romney Marsh: Survival on a Frontier*. Tempus, Stroud.

Gardiner, M. 1988. Medieval settlement and society in the Broomhill area and excavations at Broomhill church. In Eddison, J. & Green, C.P. (eds.). *Romney Marsh Evolution, Occupation, Reclamation*. Oxford University Committee for Archaeology, Monograph No. 24, 112-127.

Gardiner, M. 2002. The Late Medieval 'Antediluvian' Landscape of Walland Marsh. In: Long, A.J., Hipkin, S. and Clarke, H. eds. *Romney Marsh: Coastal and Landscape Change through the Ages*, 101-121. Oxford University Committee for Archaeology Monograph **56**, Oxford.

Gardiner, M & Hartwell, B. 2006. Landscapes of failure: The archaeology of flooded wetlands at Titchwell and Thornham (Norfolk) and Broomhill (East Sussex). *Journal of Wetland Archaeology*, *6*, 137-160.

Goodwin, J.E. 2000. '*Military Signals from the South Coast*, Midhurst, Middleton Press.

Grant, M.J. (2007). Evaluating the role of burning on the western edge of Romney Marsh during the Holocene. *The Romney Marsh Irregular*, 29, 21-26

Green, R.D. 1968. *Soils of Romney Marsh*. Soil Survey of Great Britain, Bulletin No. 4, Harpenden.

Hibbs, P. www.martello-towers.co.uk/south-coast/towers

Hibbs, P. www.pillbox.org.uk/concrete_evidence

Holgate, R. & Woodcock, A. 1988. Archaeological and palaeoenvironmental investigations at Pannel Bridge, near Pett Level, East Sussex. In Eddison, J. & Green, C.P. (eds.). *Romney Marsh Evolution, Occupation, Reclamation*. Oxford University Committee for Archaeology, Monograph No. 24, 72-76.

Holgate, R. & Woodcock, A. 1989. A later Mesolithic site at Pannel Bridge, near Pett Level, East Sussex. *Sussex Archaeological Collections*, 127, 1-10.

Hutchinson, G. 1995. '*The Royal Military Canal: A Brief History*, Hastings, M & W Morgan.

Institute of Geological Sciences. 1976. *Classical areas of British Geology: Hastings-Rye*. 1:25000. Ordnance Survey, Southampton.

Jones, R. 2003. 'Hastings to Herstmonceux: The Castles of Sussex' in D. Rudling (Ed.), *The Archaeology of Sussex to AD2000*, King's Lynn, Heritage Marketing & Publications Ltd, 171-178.

Kirby, J., Shaw, T. & Peasland, R. 2007. Palaeoenvironmental investigations on Walland Marsh - Student Project Work Summer 2006. *Romney Marsh Irregular*, 30, 3-11.

Kirkham, J. 2002. '*Rye's War'*, Rye, Rye Museum Association.

Kirkham, J. 2006. '*Bygone Rye Harbour*, (2nd Ed.), Rye, Thomas Peacocke School Local History Group.

Lewis, W.V. & Balchin, W.G.V. 1940. Past sea-levels at Dungeness. *The Geographical Journal*, 96, 257-285.

Long, A.J. & Hughes, P.D.M. 1995. Mid and late-Holocene evolution of Dungeness Foreland. *Marine Geology*, 124, 253-237.

Long, A., Waller, M. P. and Plater, A. J., 2006. Coastal resilience and late Holocene tidal inlet history: The evolution of Dungerness Foreland and the Romney Marsh depositional complex. Geomorphology 82, 309 – 350.

Long A.J., Waller, M.P., & Plater, A.J. 2007. *Dungeness and the Romney Marsh: Barrier dynamics and marshland evolution.* Oxbow Books, Oxford, 240 pages.

Long, A.J., Waller, M.P. & Stupples, P. 2006b. Driving mechanisms of coastal change: sediment autocompaction and the destruction of late Holocene coastal wetlands. *Marine Geology*, 225, 63-84.

Long, A., Plater, A., Waller, M., Roberts, H., Laidler, P., Stupples, P. and Scofield, E. 2004 'The depositional and landscape histories of Dungeness foreland and the port of Rye: Understanding past environments and coastal change.' University of Durham.

Longstaff-Tyrrell, P. 2002 '*Barracks to Bunkers'*, Stroud, Sutton Publishing Ltd.

Lovegrove, H. 1953. Old shore lines near Camber. *Geographical Journal*, 109, 200-207.

Needham, S. 1988. A group of Early Bronze Age axes from Lydd. In Eddison, J. & Green, C.P. (eds.). *Romney Marsh Evolution, Occupation, Reclamation*. Oxford University Committee for Archaeology, Monograph No. 24, 77-82.

Marsden, P. 1987. '*The Historic Shipwrecks of South-East England*, Norwich, Jarrold and Sons.

Martin, D. & Martin, B. 2004. '*New Winchelsea, Sussex*, King's Lynn, Heritage Marketing and Publications Ltd.

Mayhew, G.J. 1984. 'Rye and the Defence of the Narrow Seas: A 16th Century Town at War', *Sussex Archaeological Collections* **122**, 107-126.

Pearson, A. 2002. '*The Roman Shore Forts'*, Stroud, Tempus Publishing Ltd.

Saville, M. & R. 2006. '*A Changing Shore*, Hastings, Edgerton Publishing Services

Telling, R.M. 1997. '*English Martello Towers: A Concise Guide*, Beckenham, CST Books.

Tooley, M.J. & Switsur, R. 1988. Water levelcxhanges and sedimentation during the Flandrian in the Roney Marh area. In Eddison, J. & Green, C.P. (eds.). *Romney Marsh Evolution, Occupation, Reclamation*. Oxford University Committee for Archaeology, Monograph No. 24, 53-71.

Waller, M.P. 1993. Flandrian vegetational history of south-eastern England. Pollen data from Pannel Bridge, East Sussex. *New Phytologist*, 124, 345-369.

Waller, M.P. & Kirby, J. 2002. Late Pleistocene/Early Holocene Environmental Change in the Romney Marsh region: New evidence from Tilling Green, Rye. In: Long, A.J., Hipkin, S. & Clarke, H. eds. *Romney Marsh: Coastal and Landscape Change through the Ages*, 22-39. Oxford University School of Archaeology Monograph 56, Oxford.

Waller, M.P., Long, A.J., Long, D. & Innes, J.B. 1999. Patterns and processes in the development of coastal mire vegetation: Multi-site investigations from Walland Marsh, Southeast England. *Quaternary Science Reviews*, 18, 1419-1444.

Waller, M. P., Long, A. J., Schofield, J. E., 2006. The interpretation of radiocarbon dates from the upper surface of late Holocene peat layers in coastal lowlands. Holocene 16, 51 – 61.

Waller, M.P. & Schofield, J.E. 2007. Mid to late Holocene vegetation and land-use history in the Weald of south-eastern England: multiple pollen profiles from the Rye area. *Vegetation History and Archaeobotany*, 16, 367-384.

Wills, H. 1985. '*Pillboxes: A study of U.K. Defences 1940'*, London, Leo Cooper.

[For comprehensive recent list of references – see Long et. al. (2007) reference list]

APPENDIX 1 – ESHER DATA
Monument Records

Site Name	*Parish*	*NGR*	*HER no.*	*Type*	*Date*
Cliff End	Pett	TQ 8876 1302	MES3911	cave/artefacts	Palaeo
Cliff End	Pett	TQ 8869 1288	MES2158	pottery	IA
Pett Foreshore	Pett	TQ 888 128	MES2162	spearhead	LBA
The Hundreds	Pett	TQ 889 139	MES2123	bloomery	RB
Lunsfords Farm	Pett	TQ 887 139	MES2122	coins	RB
Lunsfords Farm	Pett	TQ 88751392	MES2092	coin	RB
Lordsland Farm	East Guldeford	TQ 94552 22291	MES7301	moat	med
Castle Farm	Icklesham	TQ 9191 1763	MES4078	house	med
Tout Rock	Pett	TQ 904 145	MES2096	salterns	med
Cliff End	Pett	TQ 8869 1288	MES2158	pottery	med
Walland Marsh	Camber	TQ 98101 19577	MES7362	earthwork	med-PM
Broomhill Level	Camber	TQ 98632 19516	MES7358	earthwork	med-PM
Broomhill Level	Camber	TQ 98934 19890	MES117	earthwork	med-PM
Broomhill Level	Camber	TQ 98557 19751	MES7357	ditches	med-PM
Broomhill Level	Camber	TQ 99368 20129	MES7361	earthwork	med-PM
The Old Vicarage	East Guldeford	TQ 9361 2143	MES3796	building	PM
Camber Castle	Icklesham	TQ 9219 1846	MES2299	castle	16th C
"Spanish wreck"	Icklesham	TQ 9156 1569	MES5904	wreck	17th C
The Suttons	Camber	TQ 96850 18420	MES7343	wreck	PM
Broomhill Level	Camber	TQ 98706 19657	MES7359	ditch	PM
Iden Lock	Iden	TQ 9365 2445	MES2167	Lock	19th C
	Rye		MES2203	Martello tower	19th C
Rye Bay		various	MES3706	Martello towers	19th C
Tower 28	Icklesham	TQ 9419 1887	MES3991	Martello tower	19th C
Smeatons Harbour	Icklesham	TQ 917 162	MES4045	harbour	18th C
Vier Gebrodiers	Icklesham	TQ 9156 1569	MES5910	wreck	19th C
Pett	Pett	TQ 8928 1376	MES5577	wreck	19th C
Rye Harbour	Rye	TQ 9495 1907	MES5550	wreck	19th C
Broomhill Level	Camber	TQ 98862 20026	MES7360	former beach	undated
Broomhill Level	Camber	TQ 98862 20026	MES7360	former beach	undated

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

Site Name	*Parish*	*NGR*	*Earliest Source*	*Type*	*Date*
Churchland Wall	Camber	TQ 9896 1859	1st OS	earthwork	med ?
The Ship	Icklesham	TQ 9093 1520	OSD	building	PM
Morlaise Ridge	Icklesham	TQ 9174 1703	OSD	building	PM
Harbour Farm	Icklesham	TQ 9167 1665	OSD	bridge	PM
Holfords Farm	Icklesham	TQ 9151 1633	OSD	sluice house	PM
Ferry Bridge	Icklesham	TQ 9032 1793	OSD	building	PM
Rye Marsh Farm	Icklesham	TQ 9103 1838	OSD	farm complex	PM
Rye Marsh	Icklesham	TQ 9079 1824	OSD	buildings	PM
Rye Harbour	Icklesham	TQ 938 192	OSD	brick kiln	PM
Rye Harbour	Icklesham	TQ 9396 1912	OSD	building	PM
Davis Land	Icklesham	TQ 933 190	OSD	earthwork	PM?
Walland Marsh	Camber	TQ 9935 1805	1st OS	sheepfold	PM
Wall House Farm	Camber	TQ 9940 1895	1st OS	farm complex	PM
Walland Marsh	Camber	TQ 9934 2007	1st OS	sheepfold	PM
Broomhill Level	Camber	TQ 9874 1981	1st OS	sheepfold	PM
Rye Harbour	Icklesham	TQ 9181 1619	OSD	battery	19th C
	Icklesham	TQ 9401 1839	OSD	Martello tower	19th C
	Icklesham	TQ 9348 1787	OSD	Martello tower	19th C
Rye Harbour	Icklesham	TQ 940 191	1st OS	coast guard station	19th C
Rye Harbour	Icklesham	TQ 9377 1909	1st OS	church	19th C
New Winchelsea Road	Icklesham	TQ 9160 1902	1st OS	battery	19th C
Reeds battery	Icklesham	TQ 9167 1754	1st OS	battery	19th C
Strand Bridge battery	Icklesham	TQ 9105 1751	1st OS	battery	19th C
Castle Mill	Icklesham	TQ 9189 1960	1st OS	windmill	19th C
Rye Harbour	Icklesham	TQ 9440 1914	1st OS	lighthouse	19th C
Rye Harbour	Icklesham	TQ 9442 1912	1st OS	signal	19th C
Rye Harbour	Icklesham	TQ 9439 1906	1st OS	lighthouse	19th C
Jurys Gut	Camber	TQ 9911 1804	1st OS	coast guard station	19th C

APPENDIX 3 – BIBLIOGRAPHIC RESOURCES

ESHER	RecordType	Date	Organisation	Grid Ref	Location	Reference
EES13967	Watching brief	07/05/2002	Archaeology South East (formerly SEAS)	TQ 9175 2033	Blackman's Yard, Wish Street, Rye	Report: Archaeology South-East. no. 1522
EES14065	DBA	04/04/2000	Bullen Consultants	TQ 9267 2029	Rye Fishing Port, Rye	Report: Bullen Consultants. no. 99C605/004/A
EES14086	DBA	01/01/2001 - 01/12/2001	Archaeology South East (formerly SEAS)	TQ 9080 1780	Brede Level, Winchelsea,	Report: Archaeology South-East. no. 1297 (2001) Johnson C.
EES14220	Aerial analysis	01/01/1996		TQ 9667 2009	Wainway Channel, Walland Marsh, Camber	Report: Air Photographic Services Ltd. no.967/09 (1996) Deegan A.
EES14221	Event - Survey	01/03/2002	Archaeology South East (formerly SEAS)	TQ 9207 1586		Report: Archaeology South-East. no. 1479 (2002) James R.
EES9509	Event - Intervention	01/01/1978 - 31/12/1983,	Department of the Environment	TQ 922 185	Camber Castle	Serial: Post-medieval archaeology : the journal of the Society for Post-Medieval Archaeology vol 1 (1967) -. 17/1983/186
EES9443	Excavation	01/01/1985 - 31/12/1989,	Institute of Archaeology Sussex Archaeological Field Unit	TQ 9878 1845	Broomhill	Serial: Medieval Archaeology : Journal of the Society for Medieval Archaeology. 32/1988/277
EES9443	Excavation	01/01/1985 - 31/12/1989	Institute of Archaeology Sussex Archaeological Field Unit	TQ 9878 1845	Broomhill	Serial: Medieval Village Research Group annual report no 1 (1953) - 33 (1985) . 33/1985/22
EES9443	Excavation	01/01/1985 - 31/12/1989	Institute of Archaeology Sussex Archaeological Field Unit	TQ 9878 1845	Broomhill	Serial: Medieval Archaeology : Journal of the Society for Medieval Archaeology. 34/1990/214-15
EES9443	Excavation	01/01/1985 - 31/12/1989	Institute of Archaeology Sussex Archaeological Field Unit	TQ 9878 1845	Broomhill	Serial: Medieval Archaeology : Journal of the Society for Medieval Archaeology. 33/1989/212-13
EES9352	Event - Intervention	01/01/1963 - 31/12/1965,	Department of the Environment	TQ 9220 1850	Camber Castle	Serial: Medieval Archaeology : Journal of the Society for Medieval Archaeology. 8/1964/259-60
EES9353	Event - Intervention	01/01/1974 - 31/12/1974,	Department of the Environment	TQ 9220 1850	Camber Castle	Serial: Post-medieval archaeology : the journal of the Society for Post-Medieval Archaeology vol 1 (1967) -. 9/1975/233-6

APPENDIX 4 SITES IDENTIFIED BY SPECIALISTS

Table 1 – Military sites

Type of Site	*Parish*	*NGR*	*Condition*	*Source*	*Date*
Royal Military Canal	Various	TQ889135 to TQ936244	Extant - incorporates part of Rivers Brede & Rother	Hutchinson 1995	Nap
Flank battery	Pett	TQ888131	Unknown - some elements may survive	Cobb, undated	
Emergency Coastal Battery	Pett	TQ893137	Part extant - see separate entries below	Butler 2007, pg 99	WW2
Observation Post	Pett	TQ89141371	Extant - in good condition	Butler 2007, pg 99	WW2
Anti-aircraft gun position	Pett	TQ89121369	Extant	Butler 2007, pg 100	WW2
Spigot mortar	Pett	TQ89131374	Extant - only example in East Sussex	Butler 2007, pg 100	WW2
Gun position	Pett	TQ89181376	Extant - whole complex survives	Butler 2007, pg 100	WW2
Building bases	Pett	TQ89091372	Part extant - possibly part of battery	Butler 2007, pg 100	WW2
Searchlight	Pett	TQ891136	2 x CASL may have been removed	Cobb, undated	WW2
Pillbox (Type 22?)	Pett	TQ897137	Unknown - may be overgrown	Butler 2007, pg 100	WW2
Anti-tank pimples	Pett	TQ88851310	Numerous uprooted pimples plus some buoys & cylinders	Butler 2007, pg 100	WW2
The Anne	Pett	TQ896138	NGR estimated	Marsden 1987	
Emergency Coastal Battery	Icklesham	TQ918160	Removed, but some elements still present	Butler 2007, pg 101	WW2
Observation Post	Icklesham	TQ91781628	Extant - in good condition	Butler 2007, pg 102	WW2
Battery (C19th?)	Icklesham	TQ91091751	Extant as earthwork Old Battery (MES7238)	Butler 2007, pg 102	19th C

Type of Site	*Parish*	*NGR*	*Condition*	*Source*	*Date*
Battery (C18/19th?)	Icklesham	TQ916175	Extant as earthwork Reed's Battery	OS 1st Ed.	19th C
Buildings	Icklesham	TQ917161	Buildings associated with ECB	Butler 2007, pg 102	WW2
Searchlight	Icklesham	TQ918160	Possible DEL associated with ECB surviving	Cobb, undated	WW2
Gun emplacement	Winchelsea	TQ90681742	On land adj Tower Cottage	ESRO WIN/2359/7/1	WW2
Fortified building	Winchelsea	TQ908176	Extant - Public house fortified but no visible evidence on exterior	Unpublished	WW2
Anti-tank buoys	Icklesham	TQ91801607	18 extant buoys lining road - not in situ	Butler 2007, pg 102	WW2
Machine gun emplacement	Icklesham	TQ91721666	Extant	Butler 2007, pg 102	WW2
Machine gun emplacement	Icklesham	TQ92071852	Extant	Butler 2007, pg 102	WW2
Machine gun emplacement	Icklesham	TQ92811744	Extant but very badly damaged	Butler 2007, pg 102	WW2
Machine gun emplacement	Icklesham	TQ92871756	Possible location but not seen	Saville 2006	WW2
Battery (C18/19th?)	Icklesham	TQ917162	Possible location of Greedy Gut battery	Saville 2006	19th C
Pillbox (Type 22)	Icklesham	TQ91661755	Extant (DoB: S0012801)	Butler 2007, pg 103	WW2
Concrete emplacement	Icklesham	TQ89381610	Extant - unique structure, poss OP	Butler 2007, pg 102	WW2
Machine gun emplacement	Winchelsea	TQ91571814	Extant	Butler 2007, pg 102	WW2
Pillbox (unknown type)	Icklesham	TQ899162	Unknown	Defence of Britain database S0012797	WW2
Pillbox (unknown type)	Icklesham	TQ903166	Unknown	Defence of Britain database S0012798	WW2
Pillbox (unknown type)	Winchelsea	TQ908178	Unknown	Defence of Britain database S0012799	WW2
Pillbox (unknown type)	Winchelsea	TQ909177	Unknown	Defence of Britain database S0012800	WW2

Type of Site	*Parish*	*NGR*	*Condition*	*Source*	*Date*
Control shelter	Icklesham	TQ91831881	Extant - For decoy site SF78/QL651	Butler 2007, pg 105 & Dobinson 2000	WW2
Pillbox (Type 28)	Rye	TQ924206	Demolished	Butler 2007, pg 107	WW2
Pillbox (Type 22)	Rye	TQ92452035	Removed in 1960's	Butler 2007, pg 107	WW2
Pillbox (Type 22)	Rye	TQ92432083	Extant	Butler 2007, pg 109	WW2
Roadblock	Rye	TQ92422066	Removed - but one cylinder present	Butler 2007, pg 108	WW2
Pillbox (Type 22)	Rye	TQ92312006	Extant	Butler 2007, pg 109	WW2
Pillbox (Type 22)	Rye	TQ91941989	Extant	Butler 2007, pg 109	WW2
Machine gun emplacement	Rye	TQ91742026	Possibly extant but buried	Kirkham 2002	WW2
Anti-tank pimples	Rye	TQ91702085 to TQ92602150	Removed but some examples survive (NGR approx)	Kirkham 2002	WW2
Anti-tank pimples	Rye	TQ91932155	34 surviving pimples from above	Butler 2007, pg 109	WW2
Roadblock	Rye	TQ91952155	Removed	Unpublished	WW2
Roadblock	Rye	TQ92502152	Removed	Unpublished	WW2
Anti-aircraft gun position	Rye	TQ916191	Removed, but Nissen hut may remain	Butler 2007, pg 109	WW2
Surface air-raid shelter	Rye	TQ91822034	Exant - incorporated into house	Butler 2007, pg 109	WW2
Searchlight	East Guldeford	TQ950230	Removed (NGR approx)	Kirkham 2002	WW2
Sunken air-raid shelter	Rye	TQ923203	Part extant	Kirkham 2002	WW2
Battery (C19th?)	Rye	TQ916191	Possible location of Half Moon Battery	Kirkham 2002	19th C
Machine gun emplacement	East Guldeford	TQ93172021	Extant	Butler 2007, pg 110	WW2
Pillbox (unknown type)	Rye	TQ922185	Unknown - no longer present	Defence of Britain database S0012802	WW2
Pillbox (unknown type)	Rye	TQ903197	Unknown	Defence of Britain database S0012803	WW2
Machine gun emplacement	Rye	TQ94851797	Extant - Rye Harbour	Butler 2007, pg 112	WW2
Machine gun emplacement	Rye	TQ94911817	Extant - Rye Harbour	Butler 2007, pg 112	WW2

Type of Site	*Parish*	*NGR*	*Condition*	*Source*	*Date*
Machine gun emplacement	Rye	TQ94191873	Extant - Frenchmans Beach	Butler 2007, pg 112	WW2
Machine gun emplacement	Rye	TQ94061864	Extant - Frenchmans Beach	Butler 2007, pg 112	WW2
Battery	Rye	TQ94581860	Possible base for gun or searchlight WW2	Butler 2007, pg 112 & Cobb undated	WW2
Anti-tank cylinders	Rye	TQ94231907	At least 16 cylinders at Rye Harbour	Butler 2007, pg 113	WW2
Machine gun emplacement	Camber	TQ966186	Buried in dunes	Butler 2007, pg 114	WW2
Machine gun emplacement	Camber	TQ964186	Buried in dunes	Butler 2007, pg 114	WW2
Machine gun emplacement	Camber	TQ96071870	Extant	Butler 2007, pg 114	WW2
Machine gun emplacement	Camber	TQ95751875	Extant - two survive at this location	Butler 2007, pg 114	WW2
Machine gun emplacement	Camber	TQ95661877	Extant	Butler 2007, pg 114	WW2
Machine gun emplacement	Camber	TQ95251894	Extant	Butler 2007, pg 114	WW2
Roadblock	Camber	TQ96561866	Extant - concrete blocks	Butler 2007, pg 114	WW2
Anti-tank cubes	Camber	TQ95661877	Extant single example from original line along beach	Butler 2007, pg 114	WW2
Anti-tank cubes	Various	TQ888131 to TQ950179	Removed (NGR approx)	Unpublished	WW2
Beach scaffolding	Various	TQ888131 to TQ950179	Removed (NGR approx)	Unpublished	WW2
Anti-tank cubes	Various	TQ948184 to TQ990180	Removed (NGR approx)	Unpublished	WW2
Beach scaffolding	Various	TQ948184 to TQ990180	Removed (NGR approx)	Unpublished	WW2
Sea flame barrage bunker	Camber	TQ97701834	Extant	Butler 2007, pg 115	WW2
Sea flame barrage bunker	Camber	TQ97741834	Extant	Butler 2007, pg 115	WW2
Sea flame barrage tanks	Camber	TQ977183	Removed	Butler 2007, pg 115	WW2
Anti-tank buoys	Camber	TQ97701834 to TQ98341821	Some 50-60 buoys alongside road - not in-situ	Butler 2007, pg 115	WW2
Anti-tank buoys	Camber	TQ97231844	Six buoys adj The Suttons	Unpublished	WW2

Type of Site	*Parish*	*NGR*	*Condition*	*Source*	*Date*
Emergency Coastal Battery	Camber	TQ990181	Removed	Butler 2007, pg 113	WW2
Building bases	Camber	TQ99001810	Building & building bases - possible domestic site for ECB	Butler 2007, pg 115	WW2
Anti-tank cylinders	Camber	TQ99081808	Two here & seven in adj depot	Butler 2007, pg 115	WW2
Iden Lock	Iden	TQ93642444	Officers accomodation , barracks & stables extant	Butler 2007, pg 179	
Pillbox (Type 22)	Playden	TQ93182255	Removed	Unpublished	WW2
Pillbox (Type 22)	Playden	TQ93542367	Removed	Unpublished	WW2
Anti-tank pimples	Playden	TQ93342294	Seven pimples, some may be in-situ	Butler 2007, pg 179	WW2
HAA Battery R1	East Guldeford	TQ939200	Removed	Dobinson 2001	WW2
HAA Battery R2	Playden	TQ928238	Removed	Dobinson 2001	WW2
HAA Battery R3	Rye	TQ898193	Removed	Dobinson 2001	WW2
Op Diver HAA battery	East Guldeford	TQ930208	Removed (NGR approx)	Kirkham 2002	WW2
Op Diver HAA battery	East Guldeford	TQ943211	Removed (NGR approx)	Kirkham 2002	WW2
Op Diver HAA battery	Camber	TQ965188	Removed (NGR approx)	Kirkham 2002	WW2
Op Diver HAA battery	Rye	TQ921197	Removed (NGR approx)	Kirkham 2002	WW2
Op Diver Z battery	Rye	TQ942188	Removed (NGR approx)	Kirkham 2002	WW2
Radar Station	Kent	TQ968232	Removed but some parts still extant	Unpublished	WW2
ROC Post	Rye	TQ90561965	Demolished	www.subbrit.org.uk	WW2

Table 2 – Aircraft Crash Sites

Date	Aircraft type	Location
21/11/1939	Hurricane	Pett
24/08/1940	ME109	Broomhill Farm, Camber
01/09/1940	ME109	Strand Bridge, Winchelsea
02/09/1940	Hurricane	Near Rye
11/09/1940	HE111 x 2	Broomhill Farm, East Guldeford
17/09/1940	ME109	Camber Farm, Camber
25/10/1940	ME109	Wall House Farm, Camber
17/12/1940	Wellington	Military Road, Rye
26/02/1941	Spitfire	Near Rye Harbour
16/04/1941	Hurricane	The Forelands, Broomhill

24/04/1941	ME109	Blackhouse Farm, Camber
12/10/1941	Do217	Jurys Gap, Camber
21/10/1941	Spitfire	North Rye
01/06/1942	Ju88	In sea off Rye
04/01/1943	FW190	Castle Farm, Rye
04/01/1943	FW190	Winchelsea Beach
01/07/1943	Spitfire	Winchelsea Beach
06/09/1943	Fortress B17	Pett Level
06/09/1943	Fortress B17	In the sea off Pett Level
20/12/1943	ME410	Playden
02/01/1944	FW190	Camber Sands
07/06/1944	Marauder B26	East Guldeford
01/07/1944	Tempest	Winchelsea
03/07/1944	Tempest	Playden
16/07/1944	Thunderbolt P47	Iden Lock
21/09/1944	Ventura	East Guldeford
28/03/1945	Fortress B17	Rye Harbour

Table 3 – sites identified by Martin Waller

Type of site	***Location***	***NGR***	***Condition***	***Reference***	***Date***
Shingle barrier SW-NE orientation	Broomhill		Extant	Tooley & Switsur 1988, Long et al. 2007	post 2600BC, pre 1500 BC (14C)
Marsh peat deposit abuting shingle to the east. Underlying geology in NW	Broomhill		Extant	Long & Innes 1995a; Kirby et al. 2007	2400 BC 1000 AD (14C)
Channel sands extending SW-NE	Midley Sands, Broomhill		Extant	Long & Innes 1995b; Kirby et al. 2007	1000 AD - PM
Sea wall	NE of Broomhill Farm		Levelled	Gardiner & Hartwell 2006	e 13C
Parallel NW-SE ditches	NE of Broomhill Farm	TQ 986189		Gardiner & Hartwell 2006	
Sea walls (3)	W of Sandyland		Poor	Gardiner & Hartwell 2006	e 13C
Post great storm gravel	W of Broomhill Farm, NE of Beach Banks Cottage			Gardiner & Hartwell 2006	post 1288 ?
Tore Wall (part of Great Cordon of Defence)		TR 007199	Poor	Eddison 2000	13th C
Major channel draining E-W across southern Walland Marsh	Waters of Cheyne & The Wainway			Gardiner, 1988; Eddison, 2000	e 13C

Type of site	*Location*	*NGR*	*Condition*	*Reference*	*Date*
Creek post 1288 storms	NE of Beach Bank Cottage			Gardiner & Hartwell 2006	13th C
Wall repairs and scour pit	Sandyland Wall	TQ 989191		Green, 1968; Gardiner & Hartwell, 2006	mid 15th C
Walls (2)	Churchland Wall, W of Broomhill Church			Eddison 2000	1585
Church remains	Broomhill Church	TQ 988184	Buried	Gardiner, 1988	mid 13th C - e 16th C
Gravel 'ridge' or trackway	Wainway Channel	TQ 999202	Plough damaged	Green, 1968	post 1585

Table 4 – Industrial and 19th/20th century sites

HER Number	Grid Reference	Site name	Site summary/description
MES8415	TQ 99590 18830	Sluice	Road bridge/sluice
MES8416	TQ 99800 18150	Sluice	Sluice
MES8417	TQ 9374 2019	Ditch	Drainage ditch
MES8418	TQ 98210 19780	Ditch	Drainage ditch
MES8419	TQ 94420 19150	Railway station	Former Rye station
MES8420	TQ 94390 19030	Harbourmaster's office	Harbourmaster's office
MES8421	TQ 9697 2126	Ditch	Drainage ditch
MES8422	TQ 9512 2083	Ditch	Drainage ditch
MES8423	TQ 96859 20240	Ditch	Drainage ditch
MES8424	TQ 91900 18500	Brickfield	Former brickfield
MES8425	TQ 91900 17600	Brickfields	Two former brickfields
MES8426	TQ 94110 19130	Coastguard cottages	Coastguard cottages
MES8427	TQ 93900 19300	Brickyard	Former brickyard
MES8428	TQ 92900 19500	Brick/tile works	Former brick and tile works
MES8429	TQ 939 190	Stone works	Former stone works
MES8430	TQ 93950 19270	Ind Estate	Industrial estate
MES8431	TQ 92710 19690	Ind Estate	Industrial Estate

MES8432	TQ 9383 1900	Railway	Railway to stone works
MES8433	TQ 93110 19610	Chemical Works	Rye Chemical Works
MES8434	TQ 92820 19620	Ind Estate	Industrial Estate
MES8435	TQ 92910 19610	Ind Estate	Industrial Estate
MES8436	TQ 9285 1754	Watch house	Watch house
MES8438	TQ 9346 1927	Level crossing	Former level crossing
MES8439	TQ 94230 19080	Watch house	Watch house
MES8440	TQ 94310 19090	Lifeboat house	Lifeboat house
MES8441	TQ 9410 1914	Coastguard stn	Coastguard station
MES8442	TQ 94500 18600	Lime kiln	Lime kiln
MES8443	TQ 9455 1863	Lime burners cottage	Lime burners cottage
MES8445	TQ 9401 1884	concrete works	Concrete works
MES8446	TQ 93290 17230	Lifeboat house	Former lifeboat house
MES8447	TQ 9442 2334	Ditch	Drainage ditch
MES8448	TQ 9359 2483	Ditch	Drainage ditch
MES8449	TQ 93670 22400	Ditch	Drainage ditch
MES8450	TQ 94670 22960	Ditch	Drainage ditch
MES8451	TQ 93770 22420	Sluice	Sluice
MES8452	TQ 92620 21690	Toll house	Toll house
MES8453	TQ 91200 20300	Brickyard	Former brickyard
MES8454	TQ 91570 20460	Pottery	Former Rye Pottery
MES8455	TQ 9132 2046	School	Tilling Green Infants School
MES8456	TQ 91960 19850	Lock	Lock (Brede Sluice)
MES8457	TQ 92370 20370	Fish market	Simmons Quay, fish market and workshop
MES8458	TQ 92370 20340	Ferry cottage	Ferryman's cottage
MES8459	TQ 92370 20320	Boatyard	Rock Channel Marine, boatyard
MES8460	TQ 92330 20210	Boatyard	Moon Marine, boatyard

MES8461	TQ 92160 20070	Sea Cadet HQ	Sea Cadet HQ
MES8463	TQ 9253 2062	Railway station	Former Rye Station
MES8464	TQ 9198 1986	Former railway	Former Rye to Rye Harbour line
MES8465	TQ 91890 19920	Level crossing	Former level crossing
MES8466	TQ 91900 20200	Mill	Former grist mill
MES8468	TQ 92320 20220	Timber/coal yard	Former timber and coal yards
MES8469	TQ 91730 20250	Sluice	Sluice
MES8735	TQ 95484 20930	C19 sheepfold	sheepfold shown on 1st & 2nd edition OS maps
MES16276	TQ 8607 1991	Canal	Canalisation of Tillingham River for approx 1000m in a straight channel up from the lowest part of the valley floor.
MES16345	TQ 9223 1659	sea wall	post medieval (or earlier) earthwork bank - sea wall
MES16348	TQ 9281 1874	WW1 rifle range	World war 1 rifle range - extant
MES16383	TQ 9503 2081	Quarry	Historic quarry
MES16386	TQ 9519 2064	sheepfold	Site of 19th century sheepfold
MES16387	TQ 9594 2020	sheepfold	Site of 19th century sheepfold, no longer extant
MES16388	TQ 9685 2009	sheepfold	Site of large sheepfold complex. No longer extant
MES16389	TQ 9154 1700	sheepfold	
MES16510	TQ 9492 1974	sheepfold	Sheepfold recorded on 19th century maps