

Barsham Water Treatment Works

Desk-Based Assessment

SCCAS Report No. 2013/078

Client: Essex and Suffolk Water

Author: M. Sommers

June 2013

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Editor: Dr R. Gardner

Report Date: June 2013

HER Information

Site Name: Barsham Water Treatment Works, Barsham

Report Number 2013/078

Planning Application No: pre-determination

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Curatorial Officer: R. Monk

Project Officer: M. Sommers

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Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

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Date: 4th June 2013
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Date: 4th June 2013
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Summary

This archaeological Desk Based Assessment (DBA) has been undertaken to inform the planning process in advance of the construction of additional works buildings and storage tanks at Barsham Water Treatment Works, Barsham. This DBA includes an examination of the Suffolk Historic Environment Record (HER), a historic map search and an assessment of aerial photographs. At this stage, there are five proposed development options, all of which will involve expansion of the existing site area.

The results of the DBA indicate that the PDA is topographically favourable for archaeological sites dating from the prehistoric period and that limited evidence for prehistoric activity, including a possible barrow cemetery, is present in the study area. There is also potential for medieval remains, associated with a possible settlement focussed on the nearby crossing of Bungay Road over a stream, which may survive within the PDA. This crossing point possibly formed part of a Second World War stop line and that evidence for associated defences may also be present.

No formal excavations have been undertaken within the PDA or the study area in modern times and therefore it is not possible to definitively determine the presence of archaeological remains at this site. It is the County Council Planning Archaeologist who will make any decisions regarding the need for, and the extent of, any further archaeological works and consultation should be sought at the earliest possible opportunity, as archaeological investigations can have considerable time and cost implications.

List of Abbreviations used in the text

BP	Before Present
DBA	Desk Based Assessment
HER	Historic Environment Record
LDF	Local Development Framework
NHLE	National Heritage List for England
NPPF	National Planning Policy Framework
PAS	Portable Antiquities Scheme
PDA	Proposed Development Area
PPG 16	Planning Policy Guidance 16
PPS 5	Planning Policy Statement 5
SM	Scheduled Monument
SCCAS/FT	Suffolk County Council Archaeological Service/Field Team
SCCAS/CT	Suffolk County Council Archaeological Service/Conservation Team

1. Introduction

1.1 Project background

This archaeological Desk-Based Assessment (DBA) has been prepared by Mark Sommers of Suffolk County Council Archaeological Service's Field Team.

This DBA is intended to establish the potential of the Proposed Development Area (PDA) for heritage assets, as recommended by national and local planning policy, by characterising the nature, date and potential for survival of archaeological deposits upon the site and the extent to which such deposits could be impacted upon by the proposed residential development of the site. Advice as to the requirement for and nature any of further investigation to establish the archaeological potential of the PDA is also provided.

The proposed development is for additional works buildings, plant and storage tanks. The precise locations for these structures have not been finalised and there are five proposed options (see Fig. 11), all of which will involve construction within the existing site as well as in additional areas outside the site boundary.

1.2 Site description

The potential PDA (the precise size and shape of which is dependant on which option is chosen, referred to hereafter as just the PDA), comprises an area of approximately 7.6 hectares centred at TM 4065 8934 (see Fig. 1. Location plan). The majority of the PDA is located within the parish of Barsham, although three of the five proposed options encroach slightly on the parish of Ringsfield to the south.

The existing water works is located to the south of Bungay Road, approximately 1.5km to the west of the town of Beccles. The site is entirely fenced and accessed via a roadway off the Bungay Road. The western boundary is formed by Lodge Farm Lane whilst the southern and eastern boundaries open onto farmland which is generally arable in nature.

A site visit was made on 23rd May 2013, to determine the presence of any factors likely to impact on the overall assessment of the archaeological potential of the PDA (see Section 3).

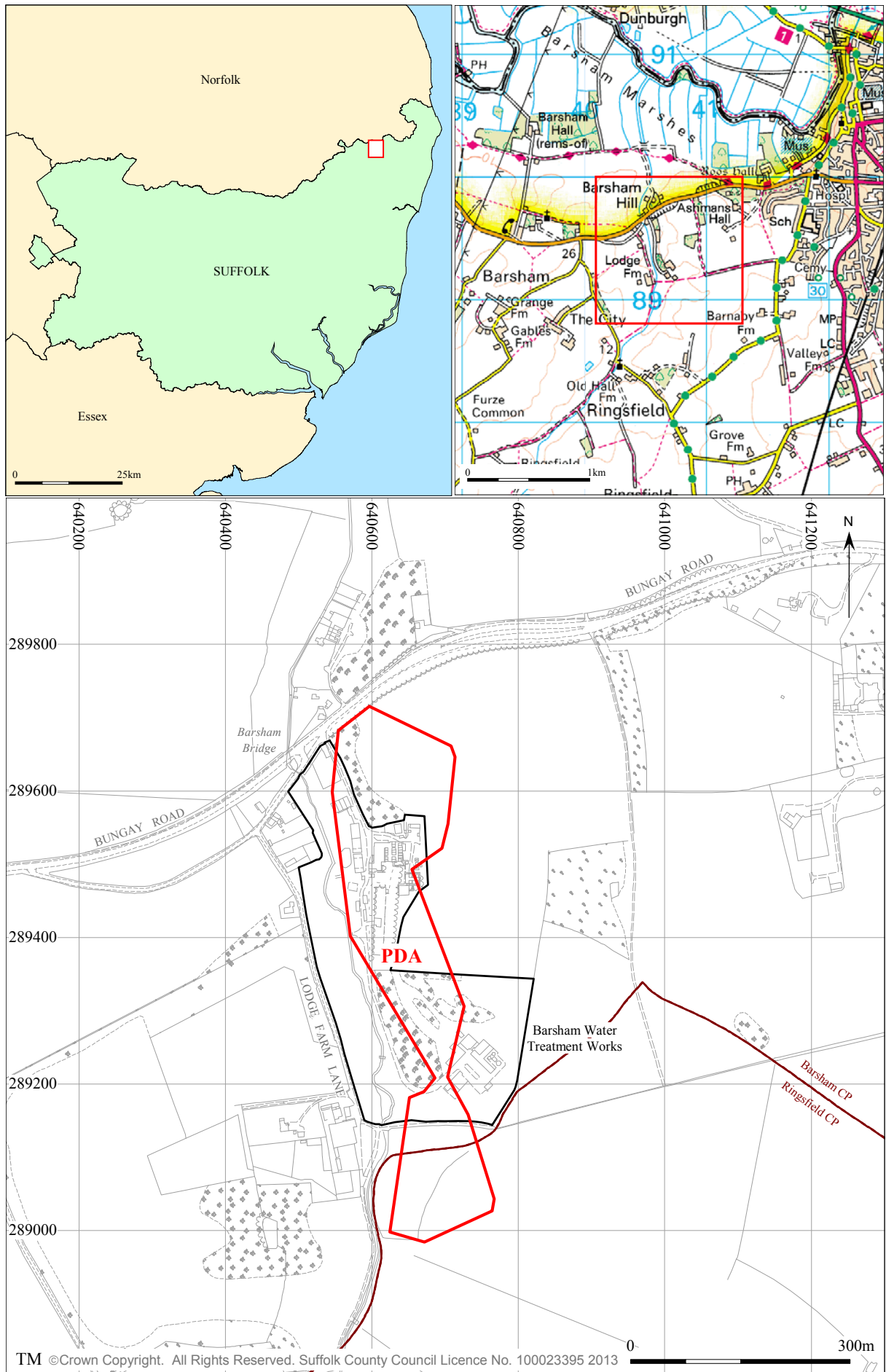


Figure 1. Location of the PDA

1.3 Topography and geology of the PDA

Topography

The PDA is located alongside a small stream in the base, and on the west facing slope, of a small north-south valley. This valley is one of many formed by water draining from the higher central clay plateau of Suffolk, which lies to the south, that have resulted in a rolling landscape with occasionally quite steep slopes, such as are present within the PDA. The base of the valley lies at approximately 5m OD whilst the highest point within the PDA approaches the 25m contour.

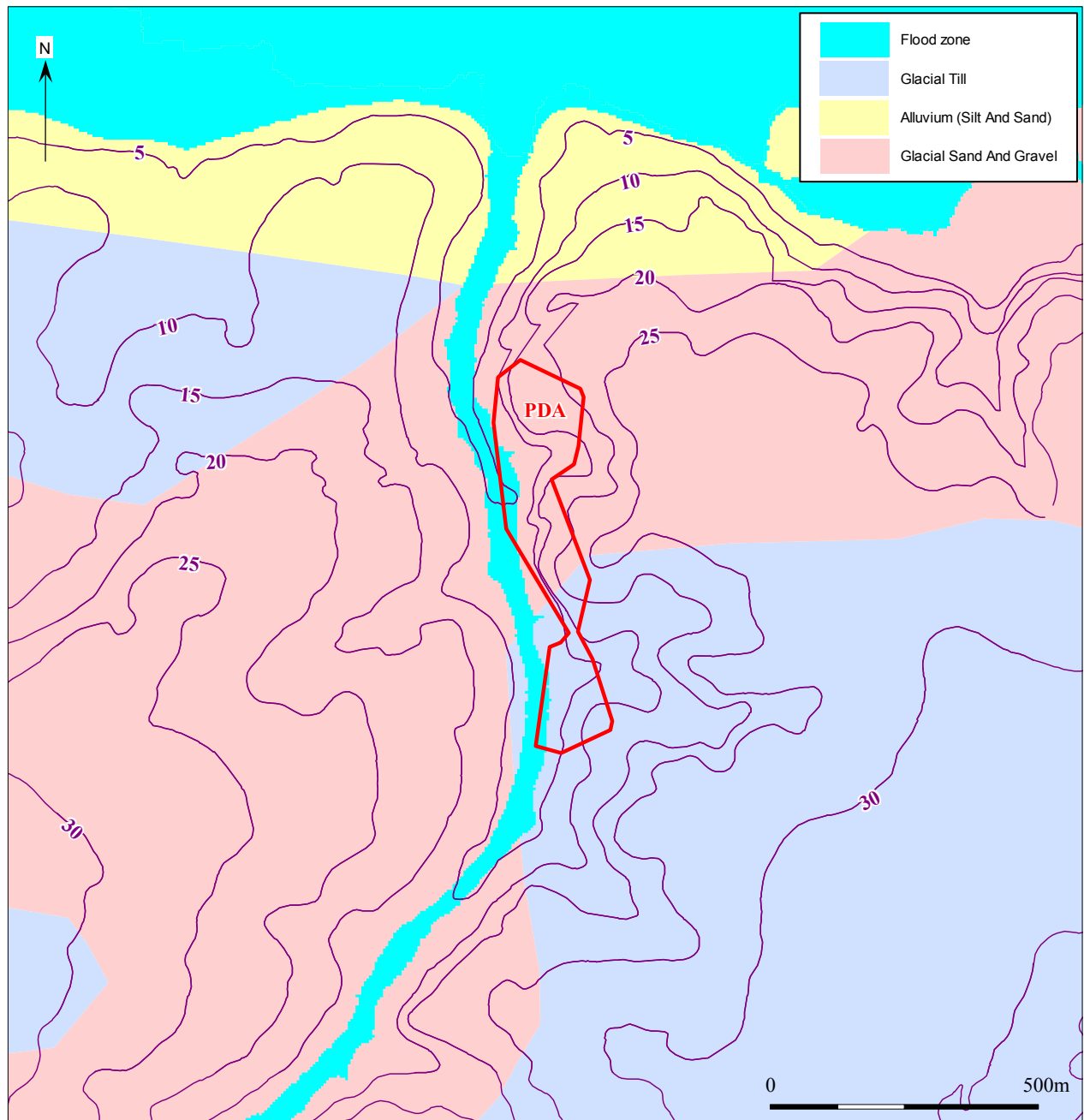


Figure 2. Contour plan (height in metres) showing superficial geology

The stream is a tributary of the River Waveney which lies approximately 1km to the north. This river is bounded by low lying marshes requiring the water to be pumped out of the marsh drainage channels and into the main river channel. A large area of such marsh, Barsham Marshes, is present on the south side of the river, the southern edge of which lies c. 600m to the north of the PDA. The stream from the PDA would originally have fed into this marsh but now runs within an embanked channel at the same level as the river.

Geology

The underlying geology of the PDA, as recorded by the British Geological Survey (1:50,000 scale map), varies across the site. The valley bottom is liable to comprise alluvial deposits of clay, silt, sand and gravel, whilst the sloping valley sides are glacial sands and gravels with the plateau of Lowestoft Till (primarily chalky clay with flint) beyond. The geology of the marshes to the north consists of peat over crag sand with glacial sands and gravels towards the edges of the Waveney valley.

1.4 Scope of this report

In order to set the PDA in its archaeological context a Study Area of 500m from the boundary of the PDA was selected for examination.

In accordance with the NPPF, the Government's guidance on archaeology and planning, this DBA examines the available archaeological and heritage sources to establish the potential of the PDA for heritage assets and the potential impact of the proposed development on such assets. These include the Suffolk HER, reports of any archaeological investigations, all readily available cartographic and documentary sources, and a site walkover. An assessment of aerial photographs was also undertaken.

1.5 Aims

The aim of the DBA is to determine as far as reasonably practicable from existing records, the previous landuse and history of the PDA, the nature of the known archaeological resource or other heritage assets within the Study Area, and the potential archaeological resource of the PDA. In particular the DBA will:

- Collate and assess the existing information regarding archaeological and historical remains within and adjacent to the site.
- Identify any known archaeological sites which are of sufficient potential importance to require an outright constraint on development (i.e. those that will need preservation *in situ*).
- Assess the potential for unrecorded archaeological sites within the application area.
- Assess the likely impact of past land uses (specifically, areas of quarrying) and the potential quality of preservation of below ground deposits, and where possible to model those deposits.
- Assess the potential for the use of particular investigative techniques in order to aid the formulation of any mitigation strategy.

1.6 Methods

The methodology involved interrogating the following sources of data to meet the aims of this DBA.

- A search of the Suffolk HER and NHLE for any records within 500m the Study Area, and an examination of the literature with reference to archaeological excavations within the study area. The results are described in Section 2.1.
- A search for Listed Buildings and Conservation Areas that lie within the Study Area and may have a line of sight to the PDA, was carried out on the NHLE and Suffolk HER. A summary is presented in Section 2.2.
- A site visit was made to assess surviving structures and the potential for the survival of archaeological deposits; Section 3

- An assessment of all cartographic sources relevant to the PDA to identify historic landuse, the siting of old boundaries and earlier buildings; Section 4.
- Aerial photographic evidence within a 500m radius of the site was analysed and, relevant archaeological and topographic features were plotted by a suitably qualified specialist with relevant experience; Section 5.
- Searches were made to ascertain whether there are any other constraints on the site (SSSI, etc.)

1.7 Legislative frameworks

National Planning Policy Framework (NPPF) This framework replaced PPS5 in March 2012 (which had in turn replaced earlier guidances such as PPG 15 and PPG 16) provides guidance for planning authorities, developers and others on planning and the historic environment (Chapter 12, paragraphs 128 & 129 below).

128. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

129. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

The Ancient Monuments and Archaeological Areas Act of 1979 statutorily protects Scheduled Monuments (SMs) and their settings as nationally important sites. There are no SMs located within the PDA or the 500m study area. The nearest SM is Barsham

Hall, a medieval moated site (NGR TM 39600 90404), situated approximately 1.2km to the north west of the PDA.

Listed buildings are protected under the **Listed Buildings and Conservation Areas Act of 1990**. This ensures that buildings placed on the *Statutory List of Buildings of Special Architectural or Historic Interest* are given statutory protection against unauthorised demolition, alteration and extension. Buildings are listed because they are of special architectural importance, due to their architectural design, decoration and craftsmanship; also because they are of historical interest. This includes buildings that illustrate important aspects of the nation's social, economic, cultural or military history or have a close association with nationally important persons or events. There are three grades of listing:

- Grade I buildings are those of exceptional interest;
- Grade II* are particularly important buildings of more than special interest; and
- Grade II are of special interest, warranting every effort to preserve them.

There are no Listed Buildings within the designated study area of the PDA although a Grade II* building, Ashmans Hall, lies just outside the boundary. It is an early 19th century country house.

The PDA does not lie within a Conservation Area, the closest such area is the Beccles Conservation Area, c. 1.5km to the east.

A Site of Special Scientific Interest (SSSI) is an area that has been notified as being of special interest under the Wildlife and Countryside Act of 1981, due to its flora, fauna or geological or geomorphological features. There are no SSSI within the PDA or the study area.

2. Results

2.1 Suffolk HER search

The HER only represents the archaeological material that has been reported and only represents the 'known' resource. It is not therefore, a complete reflection of the whole archaeological resource of this area as other sites may remain undiscovered, this is considered as the 'potential' resource.

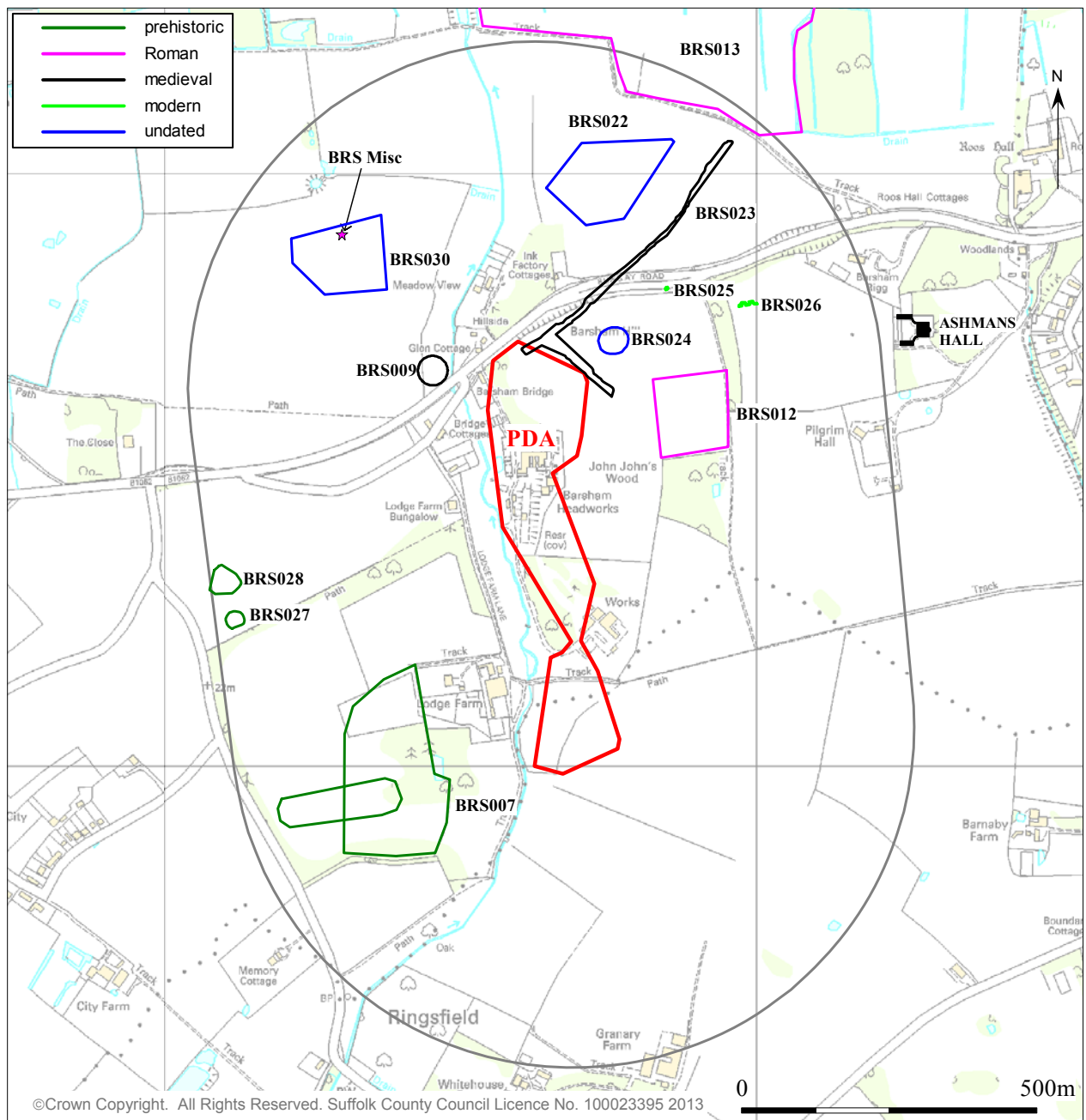


Figure 3. HER entries within 500m of the PDA

There are thirteen HER entries recorded within 500m of the PDA. These are summarised in Table 1 below. The HER entry locations are marked in Figure 3. Discussion of pertinent entries appears after the table.

HER No.	Description	Date	Nature of Evidence
BRS 007		?prehistoric	<p>Cropmarks visible on air photos, including old field boundaries traceable on 1:10,560 map, and two irregular enclosures approximately 100m apart. Enclosure to the south is approximately 40m x 40m, enclosure to the north is approximately 25m x 30m. Indications of other disturbances in same field. Southernmost enclosure looks circular on some photographs.</p> <p>Cropmarks visible on aerial photographs to the south east of Lodge farm may be forming over the remains of two barrows of Bronze Age date centred on c. TM402889 and TM403889. Both cropmarks are pale in colour, often taken to be indicative of levelled earthworks or compacted surfaces, and are generally circular in shape. The western cropmark is c. 35-40 metres in diameter and shows no evidence of an enclosing ditch. The eastern example is smaller, up to 30 metres in diameter, but may be surrounded by a ditch, up to 8 metres wide. Two more ring ditches are visible circa 300 and 500 metres to the north-west (see BRS 027 and 029). The field boundaries described above are marked on the First Edition Ordnance Survey map of c. 1884</p>
BRS 009	Monitoring	medieval	Pottery scatter identified during monitoring of pipeline route (August 1996). Scatter in pasture field - only 150mm of topsoil removed so no features visible. c.160 sherds of C13th-15th pottery were recovered, mostly unabraded
BRS 012	Findspot	Roman, medieval & post-medieval	<p>Roman metalwork scatter found metal detecting. Includes two coins and a large nail.</p> <p>Also, a horse harness pendant and a cilt buckle plate, both C13th. One post-medieval jetton was recovered</p>
BRS 013	Findspot	Roman & medieval	<p>Roman key handle, Hod Hill Brooch and broken nail found metal detecting in 2004.</p> <p>Three post medieval coins, two medieval coins, medieval bronze signet ring, incomplete belt fitting and half of a two piece saddle pommel found whilst metal detecting.</p> <p>Four further coins, horse harness pendant, pot mend, buckle frames etc. found Sept 2004.</p>

BRS 022	Documentary	undated	Cropmarks forming over the remains of probable field boundaries of possible medieval or post-medieval date are visible on aerial photographs on the northern side of Barsham Hill, Barsham parish. One group of cropmarks form the south-eastern corner of a rectilinear or square enclosure while the second is much less regular and may be caused by non-archaeological factors, such as the downslope movement of soil on Barsham Hill
BRS 023	Documentary	?medieval	Cropmarks visible on aerial photographs reveal the location of a possible road of medieval date, Barsham parish. The cropmark is visible for over 500 metres and crosses the current line of Bungay Road on a south-west to north-eastern alignment. The form of the cropmark supports an interpretation of a buried compressed or metalled surface between 3 and 10 metres wide, possibly bounded by drainage ditches. The alignment of the cropmark may support the suggestion that it once met or continued from the former line of Bungay Road (as marked on the First and Second Edition Ordnance Survey maps), although potential destinations in Barsham Marshes are not apparent. A second, shorter stretch of cropmark road is visible to the south, at approximately 90 degrees to the longer cropmark. It is possible that they are related
BRS 024	Documentary	undated	A circular earthwork feature c. 45 to 50 metres in diameter and of unknown date and function is visible on the northern slope of Barsham Hill on aerial photographs. The feature appears to be cut into the slope of the hill and may be the remains of an extractive pit or quarry, possibly a sand pit. An alternative interpretation is as the remains of a tree ring, such as is marked in this general area on Hodkinson's map of 1783. However the accuracy of Hodkinson's map at this scale is relatively poor and the tree ring may have actually been situated some distance to the north-east, closer to Roos Hall
BRS 025	Documentary	modern	A Second World War pillbox is visible on aerial photographs of the 1940s as a structure in the hedgeline adjacent to Bungay Road. Hexagonal in shape and approximately 4 metres wide, it is probably a type 22 pillbox. The pill box remains visible on photographs of the 1960s but it is unclear on 1990s photographs suggesting it has been destroyed by road widening
BRS 026	Documentary	modern	A slit trench of Second World War date, probably excavated for practise purposes or as an air raid shelter, is visible as an earthwork on aerial photographs in the grounds of Ashmans Hall. It is up to 2.5 metres wide and approximately 45 metres long, accounting for its crenellated shape. It has been filled in and ploughed over by 1967

BRS 027	Documentary	?prehistoric	The possible remains of a Bronze Age round barrow is visible as the cropmark of a ring ditch. The cropmark is not terribly clear but the ring ditch is on average 30 metres in diameter. The southern edge of the cropmark is obscured by a field boundary. Two similarly sized ring ditches are visible as cropmarks to the south and one to the north (BRS 007, BRS 029) and a smaller ring ditch, possibly remains of a later prehistoric house, can be seen within the enclosure BRS 028
BRS 028	Documentary	?prehistoric & ?Roman	A rectilinear or square ditched enclosure containing a small ring ditch, both possibly of later prehistoric date, are visible on aerial photographs as cropmarks. The western boundary of the enclosure may only partly be visible, the visible cropmark suggesting an area of approximately 44m ² for the enclosure. The ring ditch is c. 9 metres in diameter, the cropmark possibly forming over a narrow and shallow ditch such as the drip gully enclosing a round house of later prehistoric or Roman date
BRS 030	Documentary	undated	Several linear cropmarks of unknown date and function, possibly field boundaries, are visible on aerial photographs to the north-east of Barsham village, Barsham parish. It is possible they are simply field drains of post-medieval or modern date
BRS Misc	Findspot	Roman	Fragment of a Roman bronze brooch, probably a Colchester derivative type, found metal detecting

Table 1: Summary of HER data within 500m of the PDA

There have been no artefacts or other physical evidence for prehistoric activity within the study area although a number of areas of cropmarks that have been interpreted as prehistoric burial monuments (round barrows) as well as enclosures and a possible house site. These sites have been identified as a result of the Suffolk Coast National Mapping Programme, an English Heritage project to map and record archaeological sites from aerial photographs. The probable burial monuments recorded in the vicinity are thought to be part of a possible 'barrow cemetery' containing paired monuments (Hegarty, 2011).

The dense scatter of medieval pottery (BRS 009) would suggest activity in the area of Barsham Bridge, possibly a small roadside settlement focussed on the crossing point. Such activity could extend to the south side of road. Metal detectorists have recovered a small number of medieval artefacts from off the marshes to the north east of the PDA and from a field to the east, but these have been fairly limited in number and are unlikely to indicate significant activity. The cropmark interpreted as a possible roadway

(BRS 023) appears to have a branch off to the south east which presumably leads to a site of some significance that could potentially be in the vicinity of the PDA.

The defence of Britain during the Second World War is represented by the recorded site of a pillbox (BRS 025) and the possible slip trench or air-raid shelter in the grounds of Ashmans Hall (BRS 026). These have been identified on aerial photographs although the presence of the pillbox could suggest the stream and the crossing may have formed part of a 'stop line' where an invasion force could have been held or at least slowed. If so, further defensive structures are likely to have been present.

2.2 Listed Buildings

A search was carried out on the Suffolk HER and on the Heritage Gateway web site <http://www.heritagegateway.org.uk>. No Listed Buildings are located within the 500m study area although one, Ashmans Hall, lies just beyond the eastern boundary and due to its proximity it has been included in this DBA. It is designated a Grade II* Listed Building. Despite its relative importance it was once in a ruinous state although it has recently been restored to its former grandeur. Its location is marked in Figure 3; the description, as taken from the Statutory List, is reproduced below:

Name: ASHMANS HALL
List Entry Number: 1032032
Location: Ashmans Hall, Bungay Road

Grade: II*
Date first listed: 01-Sep-1953
Listing NGR: TM4128289735

Large country house. Circa 1820 for Robert Rede. White brick, with a stone band at first floor level and a stone parapet with cornice. Slated roof. 2 storeys. Approximately square main block with lower curved wings to the west enclosing the stable yard. 5-bay entrance front arranged 1:3:1, the centre bays recessed. Inset sash windows with slender glazing bars under flat brick arches; the outer bays each had a tripartite ground floor window set in an arched recess, that to the right now blocked. All the windows are damaged or missing. Recessed portico of 4 stone Ionic columns with entablature. Central doorway with 8-panel door in 2 leaves, architrave and cornice on console brackets. 9-bay right hand return front, with a central 3-light 2-storey semi-circular bay with domed roof. The rear elevation is similar to the main front but without the entrance portico. The curved wings are arcaded to the stable yard. The wings terminate in 2-storey blocks, 5 x 2 bays, the centre bay set forward and pedimented and with the openings set within a full-height arched recess. Fine central domed staircase hall, perhaps modelled on the one at nearby Worlingham Hall. The entrance to the hall has a screen of 2 Doric columns flanked by arched recesses. Imperial stair of stone, with a wrought iron balustrade and mahogany handrail. There is a first floor gallery comprising 4 pairs of Ionic columns with arched recesses between each pair and a dentil cornice: much of this is now damaged or missing. At the time of survey (May 1985) the house was derelict and considerably damaged internally with many of the ceilings collapsed.

3. Site visit

The PDA was visited on the 23rd May 2013 to identify any extant structures or earthworks that maybe of possible historic interest and assess the potential for the survival of archaeological deposits.

Figure 4 illustrates the waterworks site as seen during the site visit with reference to the surfaces and buildings present.



Figure 4. Site visit

3.1 Site description

The existing waterworks consists of an extensive complex of buildings, tanks and filter beds accessed via concrete roadways. The areas around the buildings and roadways comprise regularly mown grass although there are some areas of woodland and other areas that have been allowed to go wild. The waterworks buildings are concentrated in two specific areas, a northern group that comprises the original waterworks (plate 1), and a separate group towards the southern end of the site, known as the River Works (plate 2), which is more recent addition.



Plate 1. General view of the northern complex of buildings (camera facing south west)

The strip of land to the west of the main north-south roadway lies at the base of the valley. It is relatively level with a north flowing stream running through. The grassed area to the east of the channel is maintained whilst the land to the west has been left to grow wild with only limited maintenance (plate 3).

The roadway runs along the bottom edge of the west facing valley slope with all land to the east being situated on the valley side. It comprises an irregular slope, generally gentle but becoming relatively complex and steep in some areas. In the area of the northern complex of waterworks structures there has clearly been some extensive landscaping to



Plate 2. General view of the River Works complex (camera facing north east)



Plate 3. View north along main roadway showing the covered reservoir to the right and wild grassland away to the left

accommodate the buildings. This is also true in the area of the covered reservoir although the land immediately to the east appears to be part of the natural topography.

The area of the River Works is located part way up the valley side in an area that has also been subjected to some large scale landscaping to create one large level terrace.



Plate 4. View of land to the south of the existing waterworks showing pasture with arable fields beyond

This has probably been achieved through cutting into the slope and building up of the down slope areas, particularly in the area to the south of the River Works complex.

The areas outside the existing boundary of the waterworks primarily consist of recently ploughed arable fields as well as an area of pasture (plate 4). Part of what was presumably an arable field, in the area to the north of the northern complex, had been left as scrub (plate 5). Plates 4 and 5 show that the general nature of the gently rolling topography around the waterworks site.



Plate 5. View of land to the north of the existing waterworks

3.2 Surviving structures or earthworks

A number of structures are present within the waterworks complex but none are of any obvious historical significance. The area of the waterworks has clearly been significantly landscaped. Despite this, large areas still reflect the natural topography of the valley although no obviously historical or significant earthworks were identified.

In the areas outside the existing waterworks under threat from the extensions of the works no obvious structures or earthworks of any significance were identified.

4. History of the PDA

A history of this site has been traced through a study of readily available historical maps. Maps and plans consulted for this DBA are as follows:

<u>Name</u>	<u>Date published</u>	<u>Figure</u>
Hodskinson	1783	Fig. 5
Ordnance Survey (1st Edition) 1:2500 Scale	1884	Fig. 6
Ordnance Survey (2nd Edition) 1:2500 Scale	1905	Fig. 7
Ordnance Survey (3rd Edition) 1:2500 Scale	1927	Fig. 8
Ordnance Survey 1:2500 Scale	1969	Fig. 9

N.B. The approximate location of the PDA is outlined in red in all the historic map figures. All historic map figures depict only rescaled extracts of the original maps.

The earliest map consulted, Hodskinson's map of Suffolk (Fig. 5), dates from 1783. It is primarily a road map although it also shows towns, major buildings, areas of settlement along the roads and other landmarks to aid a traveller find their way. It also gives some indication of topography but it is by no means a complete record of the county. The area of the PDA is not clear on the map although it can be deduced by tracing the road from Beccles. A small valley with a stream is marked passing under the road, which is likely to be the stream that runs through the PDA. No features are marked within the area of the PDA although a building is shown west of the stream on the north side of the road. This is coincidental with the scatter of medieval pottery recorded on the HER (ref. BRS 009).

There is some confusion as the map depicts the stream that flows through Ringsfield, to the south west, running towards Roos Hall. This is probably an error, or more likely an assumption by Hodskinson, as the stream through Ringsfield is the one that currently drains through the PDA and it is unlikely that it ever ran any further to the east due to the local topography.

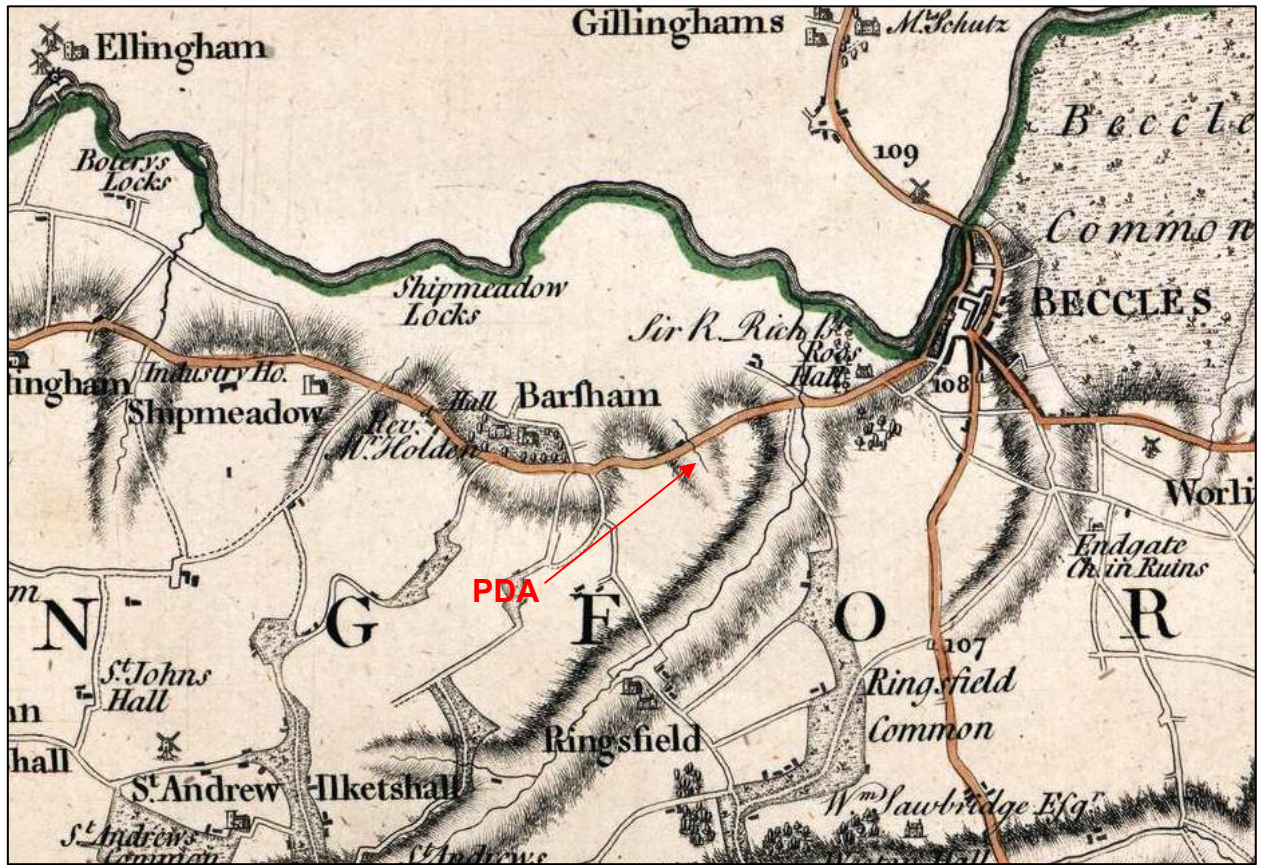


Figure 5. Hodkinson's map of Suffolk, 1783

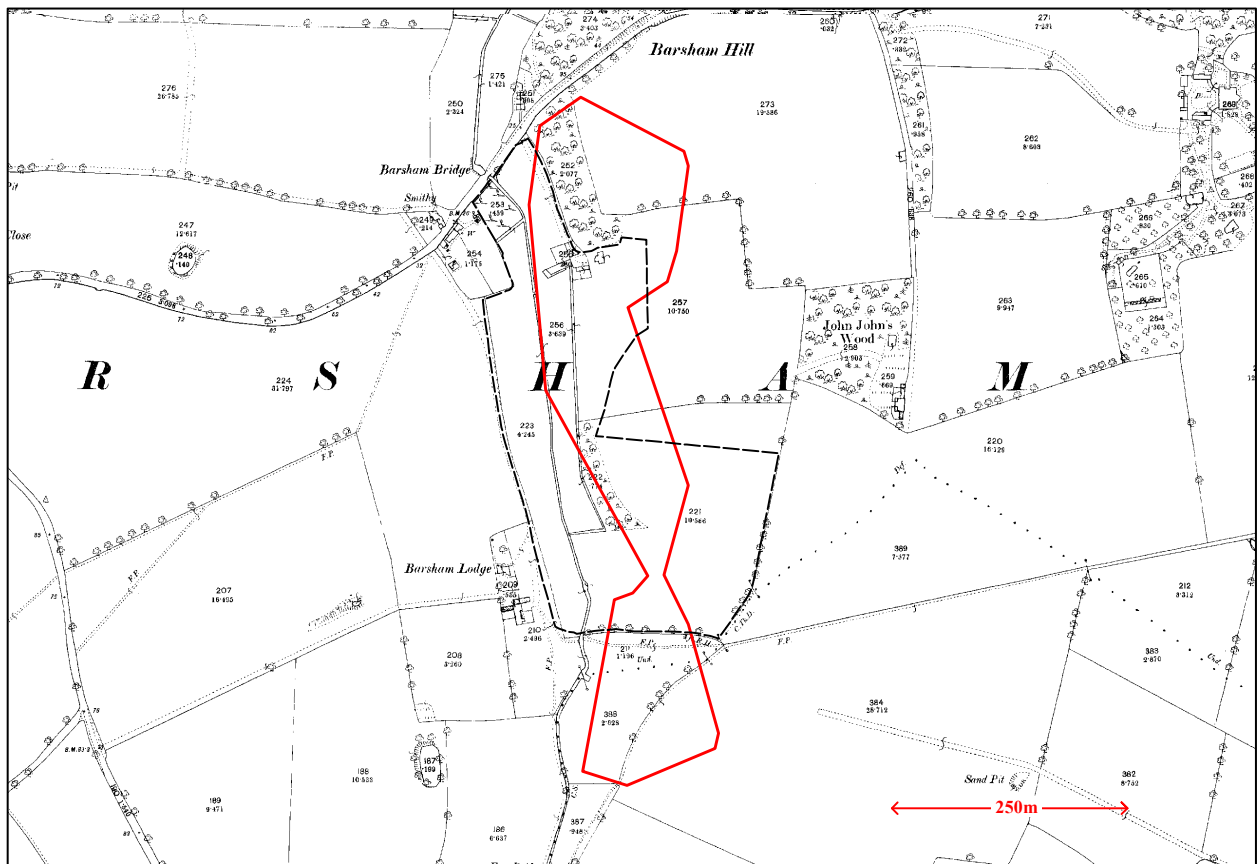


Figure 6. 1st Edition Ordnance Survey, 1:2500 scale sheet, published 1884

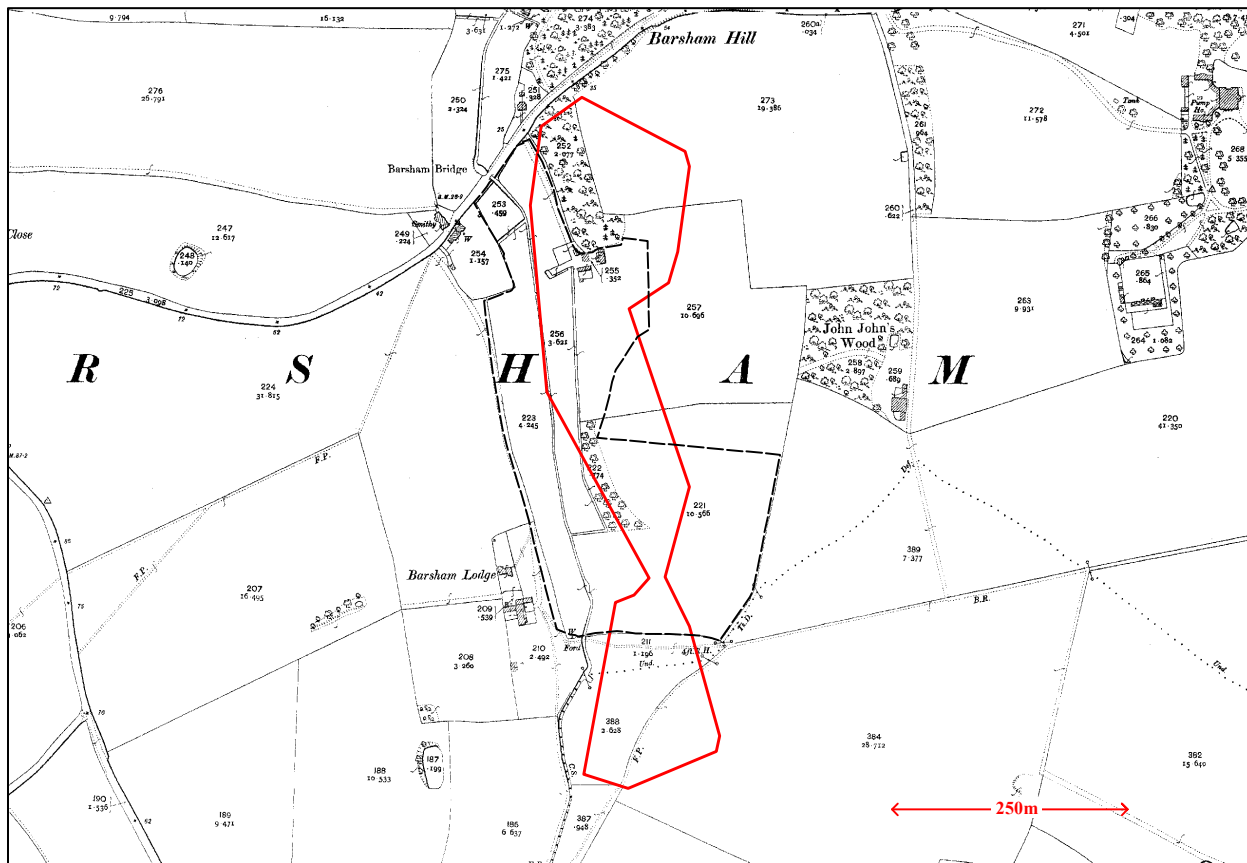


Figure 7. 2nd Edition Ordnance Survey, 1:2500 scale sheet, published 1905

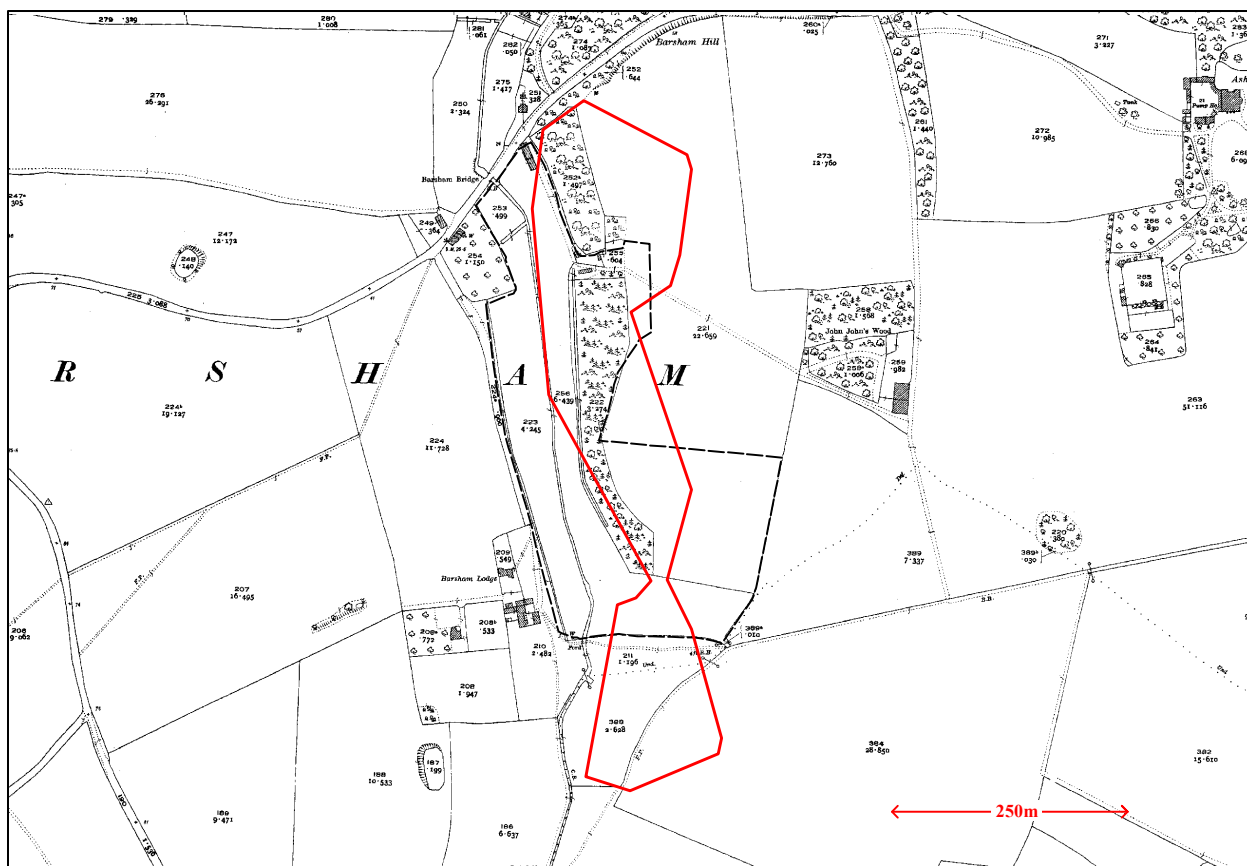


Figure 8. 3rd Edition Ordnance Survey, 1:2500 scale sheet, published 1927

The 1st, 2nd and 3rd editions of the Ordnance Survey, 1:2500 scale sheets (Figs. 6, 7 and 8) show the PDA to be rural in nature, mainly comprising of open fields. The two areas of woodland that are extant on site are visible on all three maps. The 3rd edition map shows an area of additional planting in the area of the northern complex of waterworks buildings. Adjacent to the Bungay Road, but outside the area of the PDA are a small number of buildings, one of which is identified as a smithy.

The stream, as recorded on these three maps, is in a straight channel or drain as opposed to the meandering route it now takes. A second, parallel channel is also shown as a branch which runs for c. 280m before turning to the west and running a short distance before terminating in a small rectangular pond.

A number of buildings are shown in the vicinity of this pond, close to the area of the northern waterworks buildings. They appear to consist of a house (the eastern building) and a number of outbuildings. There are marked on the 1st and 2nd editions although by the time of the 3rd edition the probable house has been cleared. The 3rd edition also shows an additional structure at the junction of Bungay Road and the access track to the buildings. It also shows that the track continues to a structure in John John's Wood to the south east.

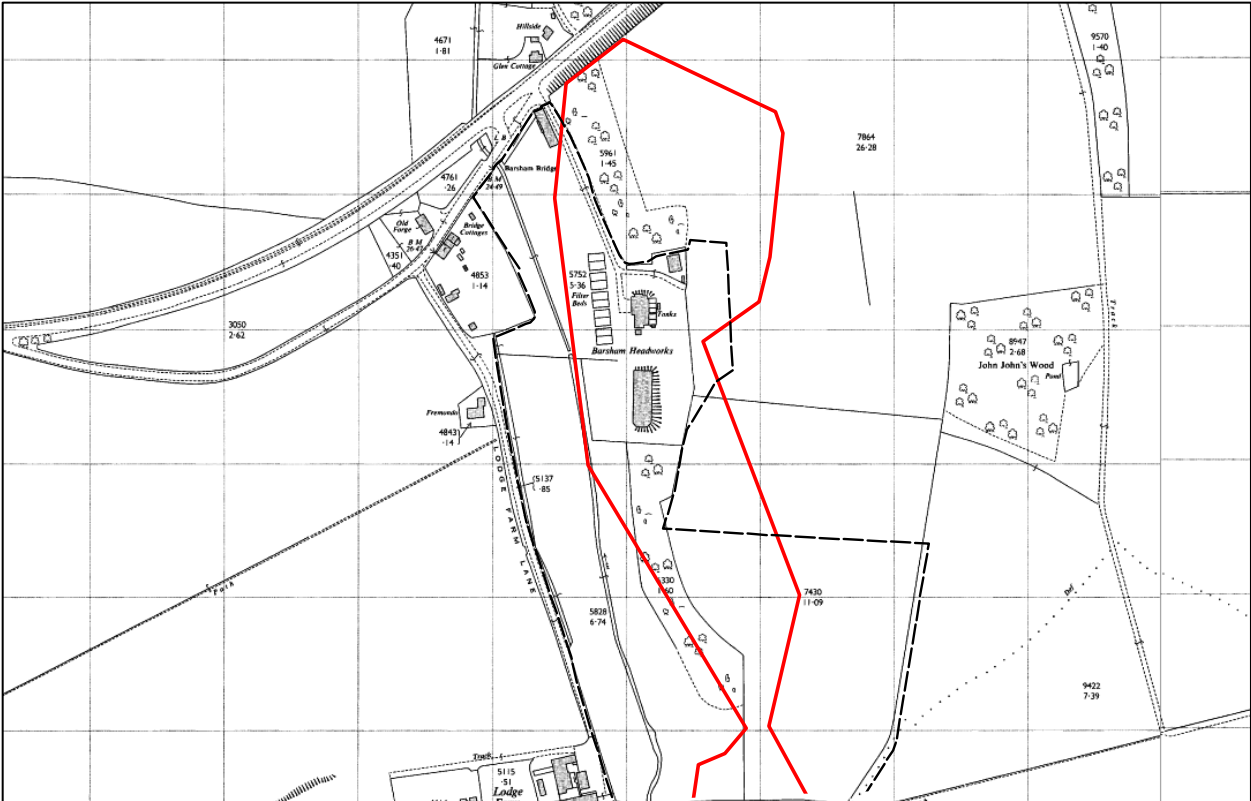


Figure 9. Ordnance Survey, 1:2500 scale sheet, published 1969

A late 1950s Ordnance Survey map of the area was examined but this did not show any great alteration from the 3rd edition map. The next map in the chronological sequence, a 1:2500 scale Ordnance Survey dated 1969, is the earliest map studied that shows the waterworks. It shows only the main structure of the northern complex, a row of filter beds and the covered reservoir. The reservoir is smaller and on a slightly different alignment suggesting it has since been rebuilt. This map also indicates that the stream's present meandering route was created after 1969.

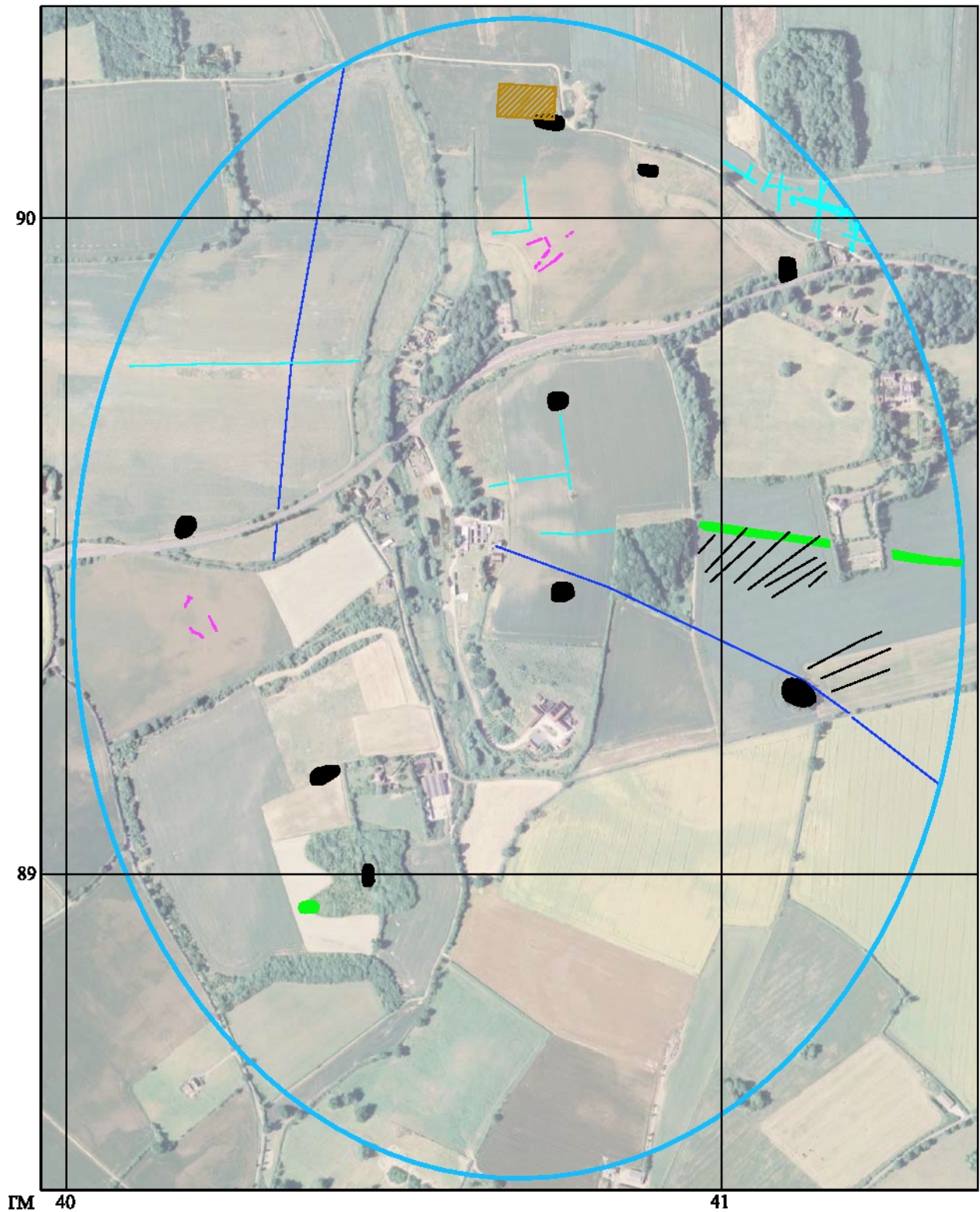
5. Aerial photography

An assessment of aerial photographic evidence within study area was undertaken by Roger Palmer of Air Photo Services, Cambridge. A number of modern and historical aerial photographs were examined with the aim of identifying archaeological, recent and natural features. The results of this analysis were then plotted onto a modern Ordnance Survey map.

A summary of the results is as follows;

This assessment of aerial photographs examined an area of some 188 hectares (centred on TM406895) in order to identify and accurately map archaeological, recent and natural features. No definite archaeological features were identified although 'possible archaeological ditches' were suggested in two modern fields and a 'possible headland' in another. A previously identified 'mound' is unlikely to be archaeological. Recent features include pipelines, field drains, former field boundaries, quarries or ponds and a small block of land used for crop trials. The land use has been predominantly arable since the 1950s (Fig. 10).

See Appendix 1 for the full report.



- Study Area
- - - Possible archaeological ditches
- Possible headland
- Mound
- Pipeline
- Field drain
- Post-medieval field boundary
- Quarry or pond

Original photo interpretation at 1:2500 level based on aerial photographs at CUCAP, NMRC, Google Earth and Bing.

Air Photo Services Cambridge
 May 2013
 Drawing: 1302-Barsham.dwg

Background faded from Google Earth/Infoterra 2007

Figure 10. Air photographic survey results

6. Assessment of impacts and effects

6.1 The archaeological potential of the PDA

No archaeological sites or findspots have been recorded within the PDA itself but a number are located within the 500m study area. The topographical location of the site, being a valley drained a stream with surrounding high ground that overlooks the Waveney valley to the north, is likely to have attracted multi-period activity.

The sites of probably prehistoric burial monuments, possibly within a barrow cemetery, as well as an enclosure and a possible house site have been identified on the high ground to the west and south west of the PDA and as such there is a **medium to high** potential for evidence of prehistoric date to be present.

Occasional Roman artefacts have been recovered in the vicinity by metal detectorists but no actual occupation sites have been identified within the study area. Consequently the PDA has a **low** potential for the discovery of sites from the Roman period. There are no records relating to Anglo-Saxon period, therefore the PDA has a **low** potential for their discovery.

Evidence for activity in the area during the medieval and through into the post-medieval period has been positively recorded in the area immediately to the north of the PDA, in the vicinity of the crossing of the stream by the Bungay Road. This could reflect the possible presence of a small hamlet, possibly a transshipment point for boats operating on the Waveney with the channel of the stream allowing them to cross the marsh to the north. Although such activity is likely to be focussed on the crossing point it is possible that archaeological evidence could extend south into the PDA. Consequently there is **medium to high** for further medieval and post-medieval evidence to be present within the PDA.

The remains of Second World War defences have been recorded in the vicinity. The slip trench/shelter is likely to be associated with Ashmans Hall although the presence of the pillbox could indicate that the nearby crossing point may have been considered as an area where an invasion could be stopped, known as a 'stop line', and that additional defensive structures could be present. Therefore, the northern end of the PDA has a **medium to high** potential for evidence of Second World War defences to be present.

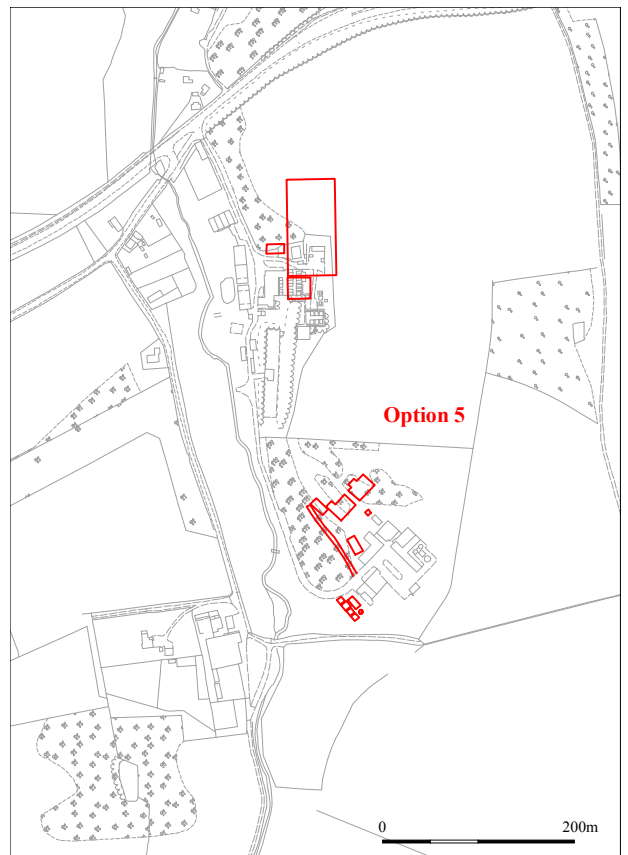
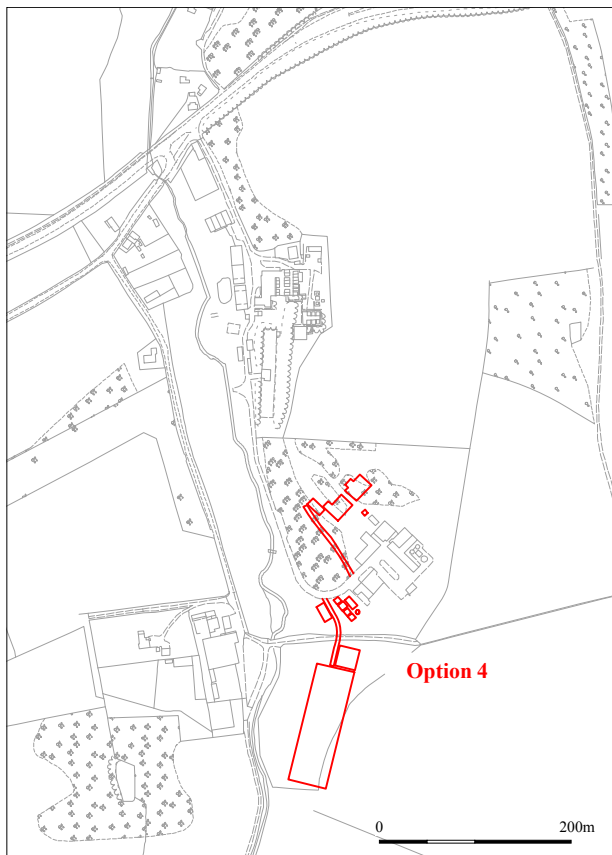
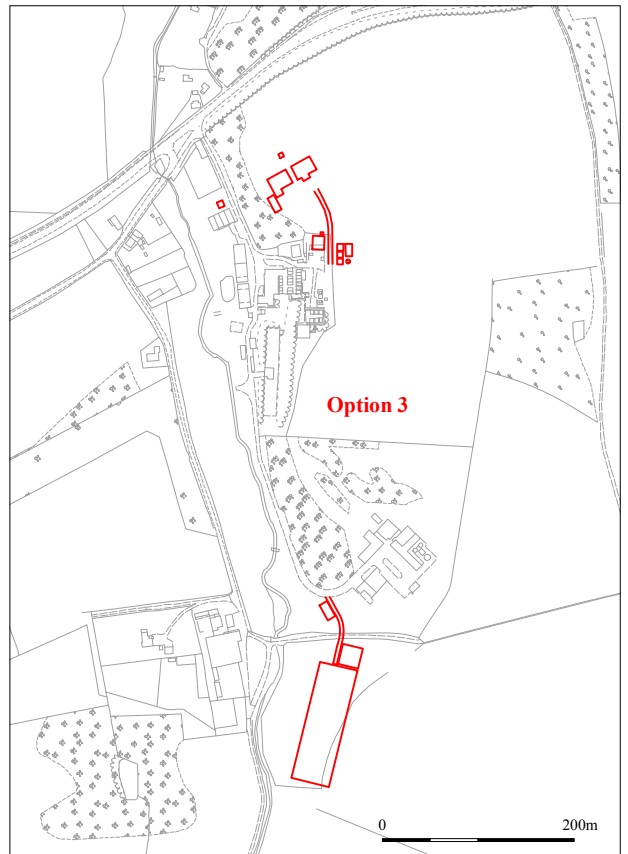
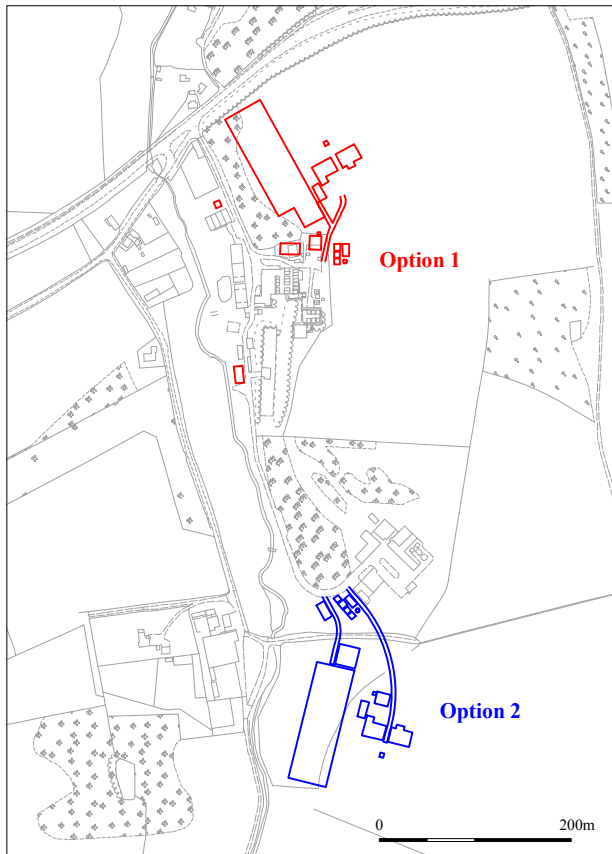


Figure 11. The proposed options

6.2 Potential of preserved archaeological remains within the PDA

In the areas of the existing waterworks buildings there has undoubtedly been some significant truncation of the underlying natural subsoils. Outside of the structure footprints and away from the obvious areas of truncation it is highly likely that buried archaeological remains, if present, will be preserved.

6.3 Assessment of the impact of the development on the archaeological resource

The potential for encountering earlier remains depends on the extent of actual groundwork that is proposed and the construction methods that may be employed in any development of the PDA.

If the proposed developments are to entail deep excavation or landscaping then this may result in the complete loss of any archaeological evidence that may be present within the PDA.

Of the five options (Fig. 11), options 1, 3 and 5 involve construction in the area to the north of the existing waterworks buildings in an area that is located on the west facing slope of a promontory that overlooks the marshes and river to the north, although these views are now obscured by trees. Such a location is liable to have attracted early activity, although the higher ground to the west may have been more desirable. Options 2, 3 and 4 involve construction in an area of what is now farmland to the south of the River Works in an area of rising ground adjacent to the watercourse. Both these areas have a good potential for the survival of buried remains of at least prehistoric and medieval although, on the balance of probabilities, the northern area has a slightly higher potential.

The option that would potentially have the least impact on any archaeological evidence that may survive within the PDA is option 5. The construction work associated with this option is primarily located within the existing works boundary, in areas liable to have been affected by landscaping related with the construction of the River Works, although a small area to the north of the existing site will be involved.

On the whole, all five of the proposed the options will potentially have a serious impact on any surviving archaeological resource that may be present with, from an

archaeological point of view, little to choose between with regard to the avoidance of the potential archaeological resource.

7. Mitigation measures

Any mitigation strategies that may be required for the redevelopment of this site in regard to its archaeological potential will be the sole decision of the Local Planning Authority, and will be dependant on the nature of the proposed works.

The first stage of any mitigation would be liable to involve a programme of trial trenching in order to fully understand the precise nature of the buried deposits and their significance at this site, and to determine the levels of survival and depths of occurrence to enable a greater understanding of the possible threat to the archaeological resource. This work would entail the mechanical excavation of a series of trial trenches to sample areas of the site at risk from the development proposals. The results of the trenched evaluation would then inform any future mitigation strategies that may be deemed necessary, such as monitoring of groundwork, open area excavation or in certain cases, preservation *in-situ*. Until such work is undertaken, it is usually impossible to define the full extent of any archaeological work that may be required on a site.

With this in mind the sites developers are strongly advised to liaise with the County Conservation Team at the earliest opportunity to clarify the likely need for any archaeological work.

8. Conclusions / Recommendations

Through an examination of the Suffolk HER and a historic map search, this DBA has set the PDA within its immediate archaeological landscape. In conclusion, the PDA is topographically favourable for archaeological sites dating from the prehistoric period and that there is evidence for prehistoric activity in the local area. There is also a potential for medieval remains, associated with a possible settlement focussed on the crossing of Bungay Road over the stream, which may survive within the PDA. This crossing point may also have formed part of a Second World War stop line and that evidence for associated defences may be present.

As previously stated, in order to fully access the actual levels of survival it may be thought necessary to undertake field evaluation. The need and precise form of any further work that may be deemed necessary would be at the discretion of the Local Planning Authority.

9. List of contributors and Acknowledgements

This project was funded and commissioned by Essex and Suffolk Water. The desk based assessment was carried out by Mark Sommers, of SCCAS. The project was managed by Rhodri Gardner, Contracts Manager, of SCCAS.

The Aerial Photographic Assessment was undertaken by Roger Palmer of Air Photo Services.

10. Bibliography

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Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Team alone. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk County Council's archaeological contracting services cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

APPENDIX 1: Aerial Photographic Assessment

AIR PHOTO SERVICES

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**LAND AT BARSHAM HILL,
AREA CENTRED TM406895,
SUFFOLK:
AERIAL PHOTOGRAPHIC ASSESSMENT**

REPORT No: 2013/2

MAY 2013

Commissioned by:
Archaeological Service
Suffolk County Council
Endeavour House
8 Russell Road
Ipswich
Suffolk
IP1 2BX

**LAND AT BARSHAM HILL,
AREA CENTRED TM406895,
SUFFOLK:
AERIAL PHOTOGRAPHIC ASSESSMENT**

SUMMARY

This assessment of aerial photographs examined an area of some 188 hectares (centred TM406895) in order to identify and accurately map archaeological, recent and natural features.

No definite archaeological features were identified although 'possible archaeological ditches' were suggested in two modern fields and a 'possible headland' in another. A 'mound' is unlikely to be archaeological.

Recent features include pipelines, field drains, former field boundaries, quarries or ponds and a small block of land used for crop trials.

Land use has been predominantly arable since the 1950s.

Original photo interpretation and mapping was at 1:2500.

**LAND AT BARSHAM HILL,
AREA CENTRED TM406895,
SUFFOLK:
AERIAL PHOTOGRAPHIC ASSESSMENT**

Rog Palmer MA MIFA

INTRODUCTION

This assessment of aerial photographs was commissioned to examine an area of some 188 hectares (centred TM406895) in order to identify and accurately map archaeological, recent and natural features and thus provide a guide for field evaluation. The level of interpretation and mapping was to be at 1:2500.

ARCHAEOLOGICAL AND NATURAL FEATURES FROM AERIAL PHOTOGRAPHS

In suitable cultivated soils, sub-surface features – including archaeological ditches, banks, pits, walls or foundations – may be recorded from the air in different ways in different seasons. In spring and summer these may show through their effect on crops growing above them. Such indications tend to be at their most visible in ripening cereal crops, in June or July in this part of Britain, although their appearance cannot accurately be predicted and their absence cannot be taken to imply evidence of archaeological absence. In winter months, when the soil is bare or crop cover is thin (when viewed from above), features may show by virtue of their different soils. Upstanding remains, which may survive in unploughed grassland, are also best recorded in winter months when vegetation is sparse and the low angle of the sun helps pick out slight differences of height and slope.

Crops on clayey soils such as occur in parts of the Study Area may require near-drought conditions before changes in their growth may indicate sub-surface features. Such crop development may be visible towards the end of very dry summers such as occurred in southern Britain in 1949, 1959, 1975, 1976, 1984, 1989, 1990, 1995, 1996, 2006, 2010 and 2011. This does not imply that every field will reveal its buried remains on these dates as local variations in weather and field management will affect crop growth. However, it does provide a list of years in which photographs taken in the weeks just before harvest may prove informative. Problems of crop development on clay soils were discussed by Evans (2007).

Such effects are not confined only to archaeological features as almost any disturbance of soil and bedrock can produce its own range of shadow, crop and soil differences. The causes of most of these effects can usually be identified but there may remain some features of unknown origin that cannot be classified without specialist knowledge or input from field investigation.

PHOTO INTERPRETATION AND MAPPING

Photographs examined

The most immediately informative aerial photographs of archaeological subjects tend to be those resulting from observer-directed flights. This activity is usually undertaken by an experienced archaeological observer who will fly at seasons and times of day when optimum results are expected. Oblique photographs, taken using a hand-held camera, are the usual products of such investigation. Although oblique photographs are able to provide a very detailed view, they are biased in providing a record that is mainly of features noticed by the observer, understood, and thought to be of archaeological relevance. To be able to map accurately from these photographs it is necessary that they have been taken from a sufficient height to include surrounding control information.

Vertical photographs cover the whole of Britain and can provide scenes on a series of dates between (usually) 1946-7 and the present. Many of these vertical surveys were not flown at times of year that are best to record the archaeological features sought for this Assessment and may have been taken at inappropriate dates to record crop and soil responses that may be seen above sub-surface features. Vertical photographs are taken by a camera fixed inside an aircraft and with its exposures timed to take a series of overlapping views that can be examined stereoscopically. They are often of relatively small scale and their interpretation requires higher perceptive powers and a more cautious approach than that necessary for examination of obliques. Use of these small-scale images can also lead to errors of location and size when they are rectified or re-scaled to match a larger map scale.

Images in that are viewable in Google Earth comprise, for Britain, a mixture of mosaiced vertical aerial photographs and georectified image tiles from high-resolution satellites. For the purposes of photo interpretation, satellite images of this kind are no different from vertical aerial photographs except that they have a slightly lower degree of resolution. Both are perfectly adequate for recording crop variations and soil differences over many types of levelled archaeological feature and both record the complete landscape rather than those objects noticed by an airborne observer. Microsoft's Bing website is similar but has a narrower date range of images although sometimes these are more recent than those in Google Earth. In the preparation of this report, Bing was accessed using Flashearh as this permits a larger window to be examined and saved than is possible using the host site.

Cover searches were obtained from the Cambridge University Collection of Aerial Photographs (CUCAP) and the National Monuments Record: Air Photographs (NMRAP), Swindon. Photographs included those resulting from observer-directed flights and routine vertical surveys. Images current on Google Earth and Flashearh at the time of this work (May 2013) were also examined.

Photographs consulted are listed in the Appendix to this report.

Base maps

All images in Google Earth were geolocated and saved using AirPhoto (Scollar and Palmer 2008). The background for the figure in this report is a faded copy of the image taken in 2007 as this shows deeper or different soil deposits in fields where crops are responsive.

Study Area

The Study Area is the oval area outlined by the Archaeological Service, Suffolk County Council.

Photo interpretation and mapping

All photographs were examined by eye and under slight (2x) magnification, viewing them as stereoscopic pairs when possible. Digital copies of the most informative were transformed to match the geolocated Google Earth background using the specialist program AirPhoto (Scollar 2002; 2013). Transformed files were set as background layers in AutoCAD Map, where features were overdrawn using standard conventions while making reference to copies of the original prints. Additional information from Google Earth layers was traced directly from the geolocated images. Layers from this final drawing have been used to prepare the figure in this report and have been supplied to the client in digital form.

Accuracy

The accuracy of the geolocated Google Earth background fixes the greatest accuracy that can be achieved from transforming other photographs on to it. When that facility was being added to AirPhoto and tested, checks were made on a random sample of 12 UK triangulation points and showed most to be positioned within 2.0 metres (Scollar and Palmer 2008, 16).

When photographs are transformed to match a background map or image, AirPhoto computes values for mismatches of control points on the photograph and background data. In all transformations prepared for this assessment the mean mismatches were less than $\pm 1.50\text{m}$.

COMMENTARY

Soils

The Soil Survey of England and Wales (SSEW 1983) shows the area having a spread of boulder clay/chalky till (soil association 411d: HANSLOPE), especially towards the north, over a bedrock of chalky till (soil association 711r: BECCLES 1). In suitable conditions, crops on these soils can indicate sub-surface variations and these may include levelled archaeological features.

Archaeological features

No definite archaeological features were identified within the Study Area although the photographs examined had recorded some beyond that zone.

The figure shows small groups of 'possible archaeological features' in two modern fields (centred TM40208939 and TM40738994). Each was from a different photograph, taken on different dates, in which they showed as variations in the growth of cereal crop but each was visible that one time only. This plus the fact that they are of unconvincing forms makes it unlikely that these are of archaeological origin and they could result from agricultural practices or indicate differences in the underlying soils or geology.

A mound is shown at TM40378894. This showed clearly in 1966 and can be seen less clearly on some earlier photographs. In 1966 it had a rectangular(ish) plan form and showed an accumulation of deeper soil around it – similar to a ditch but with less-distinct edges. It seems unlikely as an archaeological site and may be a natural hummock that was shaped by repeated ploughing. Later photographs suggest has been levelled by cultivation..

The feature mapped as a possible headland is another uncertain archaeological feature. It was visible only in 1978 on the same photographs as the field drains were photographed. Some of the field drains appear to cut through the possible headland, or at least are visible on both sides of it, so it could be an earlier feature. No other headlands or evidence for medieval cultivation were visible in or around the study area.

Non-archaeological features

Two pipelines have been mapped that cross parts of the Study Area.

Field drains have been mapped in one modern field (centred TM411893).

Several post-medieval field boundaries have been mapped. Some of these were in use in the 1940s and all, or most, appear on early Ordnance Survey maps.

Within the Study Area are several small hollows that indicate former quarries or ponds. Some of these are cut by former field divisions and may therefore be ponds that were shared by stock in both fields.

A small area of land at TM407901 was dedicated to crop trials in (at least) 1993 and 1996.

The B1062 had been straightened west of Barsham Hill (TM403895) by 1966.

Land use

In the 1940s, fields adjacent to watercourses were used as pasture but almost all of the larger fields had been converted to arable use by the early 1950s. This continued to the present day and would effectively level undulations (such as the ponds) in the fields. Fields in the south of the Study Area housed pigs between 1991 and 1996 but this use had ceased by 1999.

REFERENCES

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- SSEW, 1983. *Soils of England and Wales: sheet 4: Eastern England (1:250,000)*. Soil Survey of England and Wales, Harpenden.

APPENDIX

Aerial photographs examined

Source: Cambridge University Collection of Aerial Photographs

Oblique photographs

BWA 85-87 8 September 1975 TM412900

Source: Bing (through Flashearth)

Vertical photographs

Undated, copyright 2009

Source: Google Earth

Vertical photographs

Geoinformation 1945
 Infoterra 1999
 Getmapping 2005
 Infoterra September 2006
 Infoterra August 2007

Source: National Monuments Record: Air Photographs (cover search 78765)

Specialist collection

TM4089/1 24 July 1999 TM403890
 TM4190/2 21 March 1986 TM412902
 TM4190/3 21 March 1986 TM410904

Vertical collection

<i>Sortie number</i>	<i>Library number</i>	<i>Camera position</i>	<i>Frame number</i>	<i>Centre NGR</i>	<i>Date</i>	<i>Sortie quality</i>	<i>Scale 1:</i>
RAF/106G/UK/930	106	RS	4139	TM 412 890	16 OCT 1945	A	10200
RAF/106G/UK/930	106	RS	4140	TM 404 890	16 OCT 1945	A	10200
RAF/106G/UK/1429	335	RP	3052	TM 410 882	16 APR 1946	A	9800
RAF/106G/UK/1429	335	RP	3053	TM 402 882	16 APR 1946	A	9800
RAF/106G/UK/1429	335	RS	4051	TM 412 902	16 APR 1946	A	9800
RAF/106G/UK/1429	335	RS	4052	TM 405 902	16 APR 1946	A	9800
RAF/106G/UK/1636	422	RP	3070	TM 411 904	09 JUL 1946	AB	9900
RAF/106G/UK/1636	422	RP	3071	TM 403 904	09 JUL 1946	AB	9900
RAF/106G/UK/1716	455	RP	3062	TM 410 899	06 SEP 1946	AC	9600

Land at Barsham Hill, centred TM406895, Suffolk: Aerial Photographic Assessment

RAF/106G/UK/1716	455	RP	3063	TM 405 895	06 SEP 1946	AC	9600
RAF/540/495	1183	RP	3088	TM 415 891	12 MAY 1951	A	10000
RAF/540/495	1183	RP	3089	TM 407 892	12 MAY 1951	A	10000
RAF/540/495	1183	RP	3090	TM 400 892	12 MAY 1951	A	10000
RAF/540/465	1193	RP	3048	TM 407 903	20 APR 1951	A	10200
RAF/540/465	1193	RP	3049	TM 402 897	20 APR 1951	A	10200
RAF/540/465	1193	RP	3050	TM 398 892	20 APR 1951	A	10200
RAF/540/465	1193	RS	4133	TM 412 897	20 APR 1951	A	10200
RAF/58/5942	2489	F21	56	TM 412 893	03 OCT 1963	AB	10000
RAF/58/5942	2489	F21	57	TM 405 897	03 OCT 1963	AB	10000
RAF/58/5942	2489	F21	58	TM 399 901	03 OCT 1963	AB	10000
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MAL/67067	4626	V	66	TM 404 897	10 JUL 1967	A	3000
MAL/67067	4626	V	67	TM 407 897	10 JUL 1967	A	3000
MAL/67067	4626	V	68	TM 410 898	10 JUL 1967	A	3000
MAL/67067	4626	V	69	TM 413 898	10 JUL 1967	A	3000
OS/66003	11666	V	35	TM 399 886	08 MAR 1966	A	7500
OS/66003	11666	V	36	TM 399 893	08 MAR 1966	A	7500
OS/66003	11666	V	37	TM 399 900	08 MAR 1966	A	7500
OS/66003	11666	V	58	TM 412 897	08 MAR 1966	A	7500
OS/66003	11666	V	59	TM 412 889	08 MAR 1966	A	7500
OS/67056	11667	V	53	TM 410 881	24 APR 1967	A	7500
OS/67056	11667	V	54	TM 404 882	24 APR 1967	A	7500
OS/67056	11667	V	95	TM 407 906	24 APR 1967	A	7500
OS/67056	11667	V	130	TM 407 893	24 APR 1967	A	7500
OS/78146	12339	V	4	TM 415 899	08 SEP 1978	AC	7600
OS/78146	12339	V	5	TM 415 893	08 SEP 1978	AC	7600
OS/78146	12339	V	6	TM 415 886	08 SEP 1978	AC	7600
OS/79018	12356	V	4	TM 410 898	14 APR 1979	A	7500
OS/79018	12356	V	5	TM 402 897	14 APR 1979	A	7500
OS/81109	12516	V	140	TM 401 905	29 SEP 1981	A	7600
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OS/81109	12516	V	169	TM 407 894	29 SEP 1981	A	7600
OS/81109	12516	V	170	TM 400 894	29 SEP 1981	A	7600
OS/91032	13806	V	52	TM 410 895	12 APR 1991	A	7600
OS/91032	13806	V	53	TM 404 894	12 APR 1991	A	7600
OS/91032	13806	V	95	TM 403 883	12 APR 1991	A	7600
OS/91032	13806	V	96	TM 410 884	12 APR 1991	A	7600
OS/92347	14129	V	6	TM 405 894	12 JUN 1992	A	7600
OS/92347	14129	V	7	TM 410 894	12 JUN 1992	A	7600
OS/92347	14129	V	43	TM 414 880	12 JUN 1992	A	7600
OS/92347	14129	V	44	TM 408 880	12 JUN 1992	A	7600
OS/92347	14129	V	45	TM 401 879	12 JUN 1992	A	7600
OS/93382	14486	V	21	TM 408 906	13 AUG 1993	A	7700

OS/93382	14486	V	22	TM 414 906	13 AUG 1993	A	7700
OS/94005	14536	V	19	TM 412 906	04 MAR 1994	A	7600
OS/96545	15145	V	111	TM 405 895	27 APR 1996	A	7600
OS/96583	15172	V	3	TM 405 904	30 MAY 1996	A	7500
OS/96582	15173	V	5	TM 405 885	30 MAY 1996	A	7600
OS/96582	15173	V	6	TM 410 885	30 MAY 1996	A	7600

Most informative photographs

RAF/106G/UK/1716: 3063

RAF/58/5942/F21: 57

OS/66003: 36

OS/66003: 59

MAL/67067: 65-67

OS/78146: 5

OS/96583: 3

TERMS AND CONDITIONS

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That transcriptions, documentation, and textual reports presented within this assessment report shall be explicitly identified as the work of Air Photo Services.

Air Photo Services has consulted only those aerial photographs specified. It cannot guarantee that further aerial photographs of archaeological significance do not exist in collections that were not examined.

Due to the nature of aerial photographic evidence, Air Photo Services cannot guarantee that there may not be further archaeological features found during ground survey which are not visible on aerial photographs or that apparently 'blank' areas will not contain masked archaeological evidence.

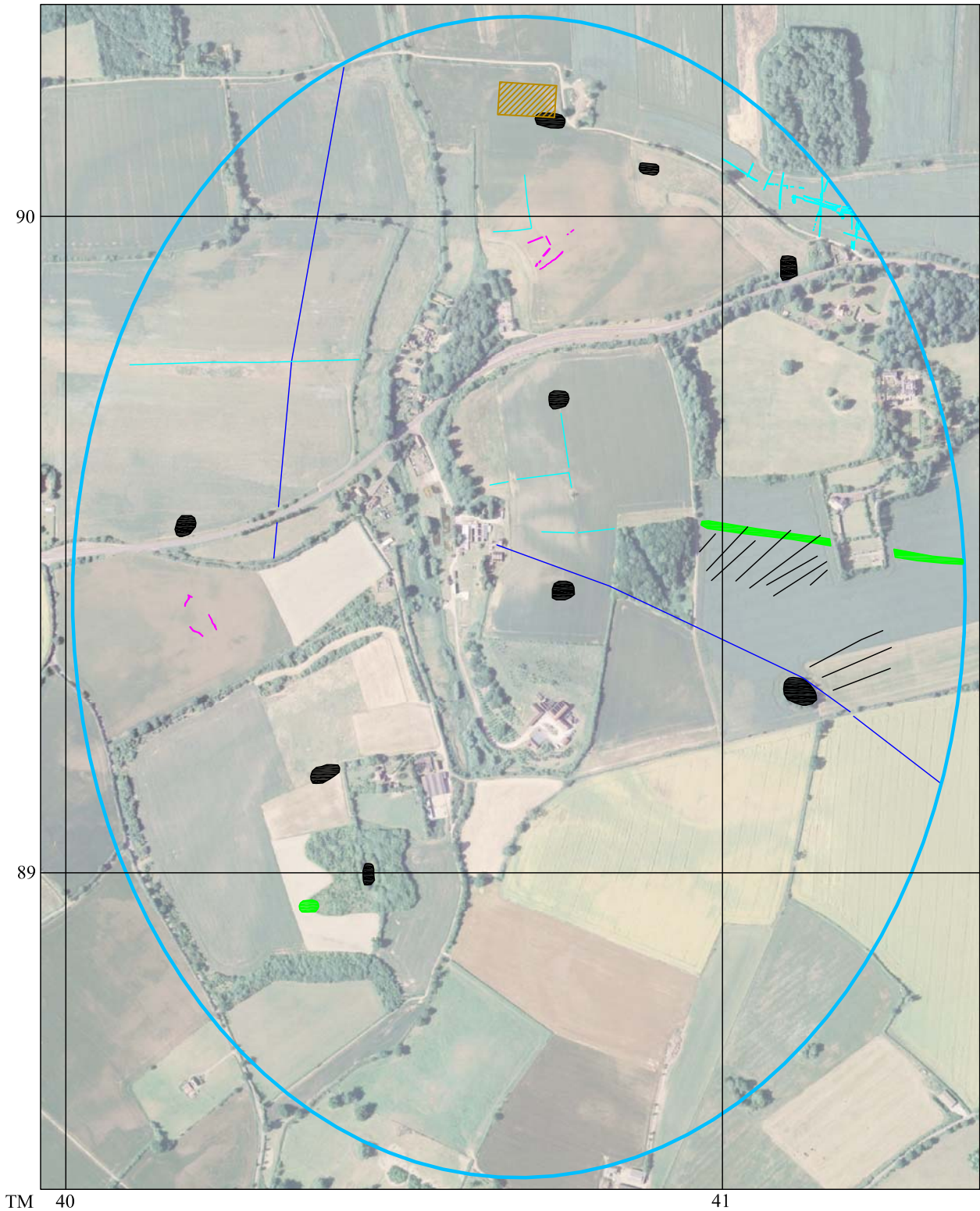
We suggest that if a period of 6 months or more elapses between compilation of this report and field evaluation new searches are made in appropriate photo libraries. Examination of any newly acquired photographs is recommended.

That the original working documents (being interpretation overlays, control information, and digital data files) will remain the property of Air Photo Services and be securely retained by it for a period of three years from the completion date of this assessment after which only the digital files may be retained.

It is requested that a copy of this report be lodged with the relevant Sites and Monuments Record within six months of the completion of the archaeological evaluation.

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Land at Barsham Hill, Suffolk:
Features identified on aerial photographs



- Study Area
- - - Possible archaeological ditches
- Possible headland
- Mound
- Pipeline
- Field drain
- - - Post-medieval field boundary
- Quarry or pond
- Crop trials

Original photo interpretation at 1:2500 level based on aerial photographs at CUCAP, NMRC, Google Earth and Bing.

Air Photo Services Cambridge
May 2013
Drawing: 1302-Barsham.dwg

Background faded from Google Earth/Infoterra 2007

APPENDIX 2: OASIS data collection form

OASIS ID: suffolkc1-154035

Project details

Project name	Barsham Water Works
Short description of the project	Desk Based Assessment - The results of which indicate that the PDA is topographically favourable for archaeological sites dating from the prehistoric period and that limited evidence for prehistoric activity, including a possible barrow cemetery, is present in the study area. There is also potential for medieval remains, associated with a possible settlement focussed on the nearby crossing of Bungay Road over a stream, which may survive within the PDA. This crossing point possibly formed part of a Second World War stop line and that evidence for associated defences may also be present.
Project dates	Start: 01-05-2013 End: 27-06-2013
Previous/future work	No / Not known
Type of project	Desk based assessment
Monument type	NONE None
Significant Finds	NONE None
Development type	Service infrastructure (e.g. sewage works, reservoir, pumping station, etc.)
Prompt	Direction from Local Planning Authority - PPS

Project location

Country	England
Site location	SUFFOLK WAVENEY BARSHAM Barsham Water Works
Study area	7.60 Hectares
Site coordinates	TM 4065 8934 52 1 52 26 54 N 001 32 30 E Point

Project creators

Name of Organisation	Suffolk County Council Archaeological Service
Project originator	brief Local Authority Archaeologist and/or Planning Authority/advisory body
Project originator	design Suffolk County Council Archaeological Service, Field Team
Project director/manager	Rhodri Gardner
Project supervisor	Mark Sommers
Type of sponsor/funding body	of Developer

Project archives

Physical Archive Exists?	No
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Digital recipient	Archive	Suffolk County Council Archaeological Service
Digital Contents		"other"
Digital available	Media	"GIS", "Images raster / digital photography", "Text"
Paper recipient	Archive	Suffolk County Council Archaeological Service
Paper Contents		"other"
Paper available	Media	"Correspondence", "Report"

Project bibliography 1

Publication type		Grey literature (unpublished document/manuscript)
Title		Desk Based Assessment: Barsham Water Treatment Works
Author(s)/Editor(s)		Sommers, M.
Other bibliographic details		SCCAS Report No. 2013/078
Date		2013
Issuer or publisher		SCCAS
Place of issue or publication		Ipswich
Description		printed sheets of A4 paper with card covers and a wire binding

Entered by	MS (mark.sommers@suffolk.gov.uk)
Entered on	27 June 2013

Archaeological services Field Projects Team

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