

Report 2686



nps archaeology

Archaeological Watching Brief along the route of the Benhall to Snape Mains Scheme, Suffolk

SNP 101



Prepared for
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October 2012



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Figure 1 Site location showing route of new water main

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Plate 1 Field 01 easement looking north-east

Plate 2 Field 02 easement looking south-west

Location:	Benhall to Snape, Suffolk
District:	Suffolk Coastal
Grid Ref.:	TM 3798 6127 to TM 3934 5926
Planning Ref.:	n/a
HER No.:	SNP 101
OASIS Ref.:	135421
Client:	Essex and Suffolk Water
Dates of Fieldwork:	4 November 2011-12 December 2011

Summary

An archaeological watching brief was conducted for Essex and Suffolk Water ahead of the installation of a water main between the parishes of Benhall and Snape in Suffolk.

Despite the high archaeological potential of the land over which the route of the water main traversed, no archaeological features were encountered.

A total of eight struck flints were recovered from the topsoil during the monitoring indicating prehistoric human activity in the vicinity. A number of post-medieval and modern metal detected finds were also collected, probably representing casual losses.

1.0 INTRODUCTION

A proposal by Essex and Suffolk Water to install a new water main between the parishes of Benhall and Snape in Suffolk (Fig. 1), prompted the Suffolk County Council Archaeological Service Conservation Team (SCCASCT) to request that a programme of archaeological monitoring be carried out to monitor the works and record any archaeological features and deposits that may be revealed.

The route crosses an area of high archaeological and palaeoenvironmental potential where a number of undated cropmarks as well as artefact concentrations of prehistoric, Roman and medieval date have been previously recorded close to or on the line of the proposed route.

The proposed construction works included topsoil stripping of a 2-3m wide easement through agricultural fields for approximately 1.48km of the proposed pipeline route. A further 1.2km of the route ran through meadow or pasture where the new water main was inserted directly into a 2m wide open cut trench. The remainder of the 3.7km route involved open cut trenching within roads or directional drilling.

In order to comply with the recommendation made by SCCASCT, Essex and Suffolk Water requested that NPS Archaeology carry out the programme of monitoring in line with the Brief and Specification for Continuous Archaeological Recording issued by Suffolk County Council Archaeological Service Conservation Team (Sarah Poppy 24 February 2011 – ref: BenhallSnape_watermain_2010).

This work was undertaken to fulfil planning requirements set by Suffolk County Council. The work was conducted in accordance with a Project Design and

Method Statement prepared by NPS Archaeology (Ref. BAU2686/DW/October 2011). This work was commissioned and funded by Essex and Suffolk Water.

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *National Planning Policy Framework* (Department for Communities and Local Government 2012). The results will enable decisions to be made by the Local Planning Authority about the treatment of any archaeological remains found.

The site archive is currently held by NPS Archaeology and on completion of the project will be deposited with Suffolk County Council Archaeological Service following the relevant policies on archiving standards.

2.0 GEOLOGY AND TOPOGRAPHY

The underlying geology at the site is a Crag Group sand - a sedimentary bedrock formed up to five million years ago in the Quaternary and Neogene Periods. This deposit is overlain by Lowestoft Formation sand and gravel formed up to two million years ago in the Quaternary Period (<http://maps.bgs.ac.uk/geologyviewer>).

The route of the new water main traversed fields given over to both arable and pasture in a gently undulating landscape. The site is situated immediately to the west of the estuary of the River Alde. The site lies at an altitude of between c.23m OD (Benhall) and c.19m OD (Snape).

The topsoil at the site is a mid brown sand silt with a depth of between c.0.30m-0.40m. This topsoil overlies a subsoil consisting of a mid orange brown silt sand that varies in depth from 0.20m on higher ground to c.0.40m in the lower lying portions of the site.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

A search of entries in the vicinity of the site held in Historic Environment Record was provided by Suffolk County Council Archaeological Service. A summary of relevant findspots, structures and events are presented below in chronological order of period.

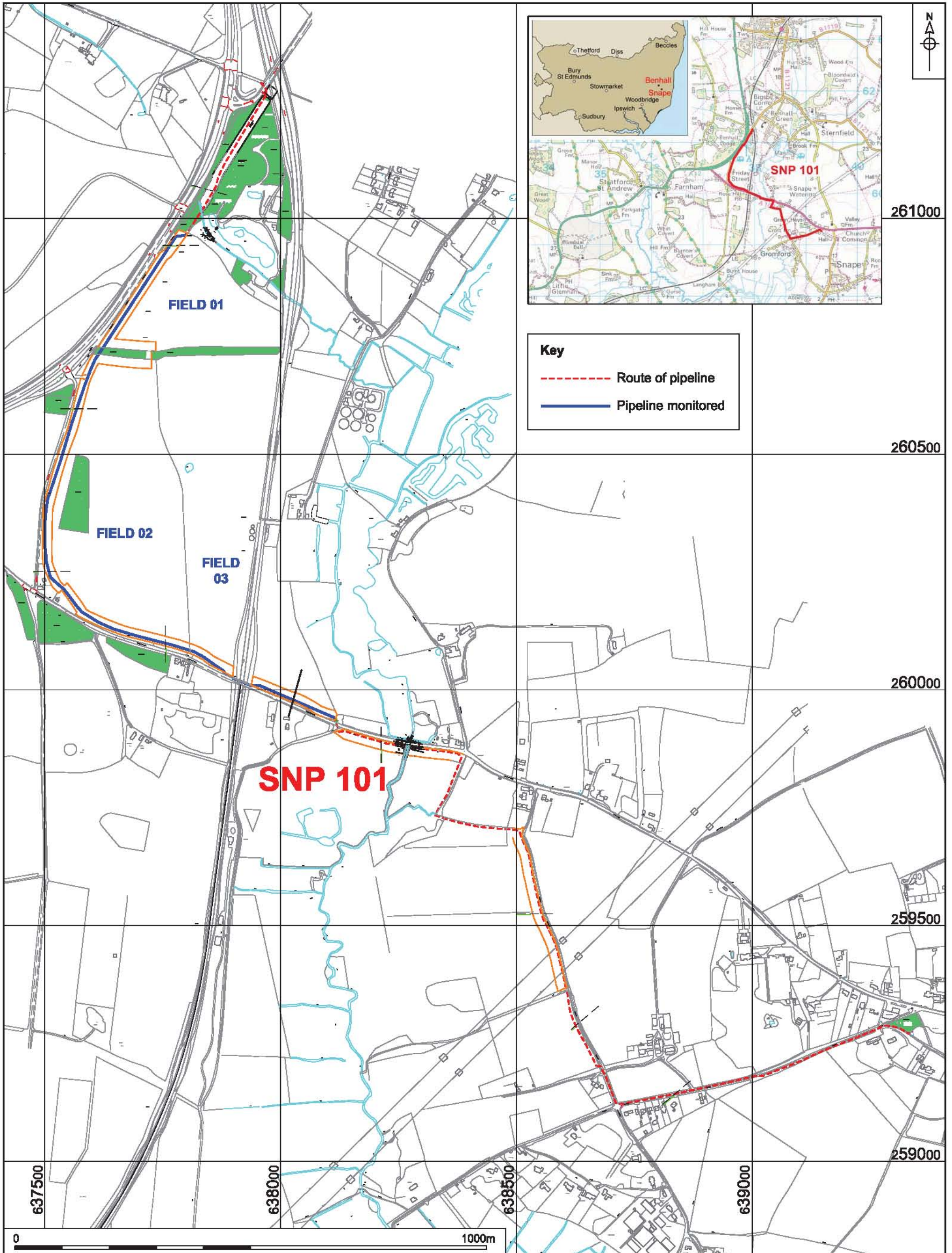
Prehistoric

BNL 005 At Benhall Sewage Works sherds of Neolithic pottery were found including a sherd of pottery with a rim.

BNL 028 At a confidential location 'near Saxmundham' a Ewart Park phase Late Bronze Age hoard was metal detected over an area of c.100m. Finds consist of 60 small fragments comprising two swords, four spearheads, ten socketed axes (three decorated), nine unknown bronze objects, 32 ingots and three other (non-metal?) objects.

FNM 002 At Croft Farm, Snape a Late Bronze age socketed axe with remains of a wooden haft in socket is recorded

FNM 009 During works on the A12 in December 1991 a widespread lithic scatter was recorded over an area of 260m x 160m area in two fields



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Figure 1. Site location showing route of new water main. Scale 1:75,000

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- SNP 001 A Neolithic chipped flint axe was discovered 1964, along with a sherd of Iron Age red, gritty, hand-made pottery.
- SNP 002 A Neolithic leaf-shaped javelin head of grey flint was found in this location.
- SNP 005 Sherds of Iron Age pottery and a small pit '1 foot 6 inches wide' were located here.
- SNP 006 At Snape Watering a Mesolithic blade was recorded.
- SNP 035 At Snape Hall Bronze age objects including an unpatinated barbed and tanged flint arrowhead were found in area which had previously produced waste flakes scrapers and blades.

Romano-British

- SNP 001 Two sherds of Roman pottery were found here.
- SNP 024 A scatter of Roman pottery and tile was found during fieldwalking after subsoiling earlier in the year.

Anglo-Saxon

- SNP 010 A Saxon Rubbish pit with 'Ipswich' type ware and one sherd of Thetford ware was recorded here.
- SNP 012 During the investigation of a rectangular cropmark Thetford ware was collected at this location.

Medieval

- SNP 011 At 'Gromford' a sherd of early medieval pottery from a circular 'oven,' '10 feet in diameter with a floor five inches thick', was located.
- SNP 012 Excavation of a medieval rectangular cropmark found an oven and a pit superseded by two parallel ditches and finally a building, represented by post-holes and clay pads.
- SNP 018 At Church Common a medieval pit, 'three-feet wide and six feet deep' containing early medieval pottery sherds, oyster shells and lumps of boulder clay was recorded.
- SNP 019 Approximately 13 medieval pottery sherds, a brick 'wall' '10 feet long', and fragments of heavily vitrified brick and burnt soil were recorded at this location.
- SNP 024 A small scatter of Late Saxon/medieval pottery consisting of one rim sherd of Late Saxon Thetford type ware, three rims, one base and six body sherds of medieval coarseware were located here.
- SNP 030 What is described as a small 'area of settlement' and 'oven' of medieval date were discovered here.
- SNP 031 Due to the discovery of a scatter of medieval pottery this is thought to be the location of an 'area of settlement'.

Post- Medieval

- SNP 040 At this location the route of the pipeline crosses a watercourse adjacent to a Bridge depicted as 'Thelford Watering' on Hodkinson's 1783 map.

The bridge is not shown on Bowen's 1755 map suggesting that its construction is possibly post 1755. The area is shown as a ford on the Ordnance Survey map of c.1887, and as a bridge on the Ordnance Survey map of c.1904. In 2003 monitoring of a bridge replacement failed to identify evidence of a significantly earlier bridge. Blocks of late 19th-century/early 20th-century brickwork were noted in the four corners of the 1923 bridge. Possibly supports for a wooden structure were also noted.

SNP 092 This location is the site of a 19th-century brickworks and kiln. 'Brick Field' is named on the Ordnance Survey 1837 map. 'Brick Works', 'Kiln' and various buildings and extraction pits (on either side of road) are shown on an Ordnance Survey map of the 1880s. These are probably the same as Brick Kiln Farm brickworks listed in directories as operated at this time by James Neeve (1844-46), John Hambling (1855-64), Mrs I Hambling (1865), James Olding (1868-85) and Samuel Newson (1888-1916). Various properties, such as 'Brick Kiln Park', 'Pear Tree Cottage' and 'The Brick Kiln' are now shown in the area, of which only Pear Tree Cottage may be an original structure associated with the works.

FNM 017 Monitoring of groundworks associated with outbuildings at the 18th-century Rosehill House in Farnham revealed no archaeological features or finds.

4.0 METHODOLOGY

The objective of this watching brief was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that a record of archaeological deposits which are damaged or removed by any development [including services and landscaping] associated with the proposed works be compiled.

The brief also required the close monitoring of the topsoil stripping of the easement for those pipeline sections located in arable fields (approximately 1.48km) and the excavation of the open cut trench through pasture (approximately 1.20km).

Machine excavation was carried out with a 360° excavator equipped with a toothless ditching bucket and operated under constant archaeological supervision.

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds other than those which were obviously modern, were retained for inspection.

Environmental samples were not taken as no suitable deposits were encountered.

All archaeological features and deposits were recorded using NPS Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Colour, monochrome and digital photographs were taken of all relevant features and deposits where appropriate.

Site conditions were generally good, with the work taking place in mainly cold but dry weather.

5.0 RESULTS

For the purposes of this report the results of the archaeological monitoring utilise the field numbers (Fig. 1) and are presented below in numerical order.

5.1 Field 01

Field 01 was situated close to the northern end of the route of the new pipeline (Fig. 1). The works here were aligned north-east to south-west and extended from a valley (through which a small watercourse runs) up a reasonably steep slope before levelling out to the south-west.



Plate 1. Field 01 easement looking north-east

The field was under arable cultivation and therefore a 3m wide easement was initially topsoil stripped to reveal a subsoil. Subsequently a deep open cut was excavated to accommodate the water main.

Topsoil [01] was a mid brown sand silt with a depth between c.0.30-0.40m. This topsoil overlay a subsoil consisting of a mid orange brown silt sand. This deposit varied in depth from 0.20m on higher ground to c.0.40m in the lower lying portions of the site. The underlying natural deposit was one of bright orangish yellow sand.

No archaeological features or deposits were encountered during the works in this field but ten metal detected finds were recovered from the topsoil along with a

single sherd of a post-medieval flower pot. The metal finds were also of post-medieval or modern date and included a William III farthing dated 1699, a copper alloy thimble and a lead musket ball.

5.2 Field 02

Field 02 was situated along the north-western section of the route of the new pipeline (Fig. 1). Here the works ran in an arc first to the south and then to the east. The topography of this section was one of a relatively level arable field. The location overlooked lower lying terrain to the west. Again an easement followed by an open cut trench was employed in this field.



Plate 2. Field 02 easement looking south-west

Topsoil [02] was a mid brown sand silt with a depth between c.0.25-0.30m. The topsoil overlay subsoil consisting of a mid orange brown silt sand. This deposit had an average depth of about 0.20m. The underlying natural deposit was one of bright orangish yellow sand.

No archaeological features or deposits were encountered during the works in this field but six metal detected finds were recovered from the topsoil and included an illegible copper coin (probably Georgian), a lead musket ball and a lead weight. Two pieces of prehistoric struck flint were also recovered representing waste material from the making of flint tools.

5.3 Field 03

Field 03 was situated along the south-western section of the route of the new pipeline (Fig. 1). Here the works ran from north west to south east. The field sloped slightly from west to east. An easement followed by an open cut trench was employed in this field.

Topsoil [03] was a mid brown sand silt with a depth between c.0.25-0.30m. The topsoil overlay subsoil consisting of mid orange brown silt sand. This deposit had an average depth of about 0.20m. The underlying natural deposit was one of bright yellow sand.

No archaeological features or deposits were encountered during the works in this field but a fragment of crotal bell dating to the post-medieval period and two undated small sheets of copper alloy were found by metal detecting. Six pieces of prehistoric struck flint were also recovered from the topsoil [03] in this 250m long section.

The majority of the remainder of the pipeline route entailed laying the pipe either in trenches cut into verges or road surfaces (which did not require monitoring).

No archaeological features or deposits were encountered during the monitoring of the remaining open cut trenches.

6.0 FINDS

by Rebecca Sillwood

Very few finds were recovered during the monitoring of the pipeline route. The finds were processed and recorded by count and weight, and an Excel spreadsheet was produced outlining broad dating. Each material has been considered separately and is presented below organised by material.

A list of the finds ordered by context can be found in Appendix 2a.

6.1 Pottery

Two fragments of pottery were recovered from the monitored route; one of the sherds (2g) is prehistoric in date and the other is a small piece of probable post-medieval flowerpot (2g).

The prehistoric sherd is likely to be Bronze Age in date.

The post-medieval fragment came from topsoil [01] of Field 01, and the prehistoric piece from the topsoil [03] of Field 03.

6.2 Flint

Eight fragments of struck flint were recovered from the site, all were unstratified, with two pieces (4g) from topsoil [02] of Field 2 and six (54g) from topsoil [03] of Field 3.

All of the flints consist of debitage from the creation of tools in the prehistoric period.

6.3 Metal Finds

6.3.1 Copper Alloy

A total of eleven copper alloy objects were recovered from the site and all came from the topsoil in Fields 01-03.

The earliest dated artefact was a William III farthing of 1699, which came from topsoil [01] in Field 01. A small post-medieval thimble was also recovered from this field, along with a discoidal button, that had traces of gilding on its reverse. A modern stud and fitting were also found here.

A coin was recovered from topsoil [02] in Field 02, and although the inscription is illegible, its size would suggest that it is likely to be a Georgian coin.

The upper part of a post-medieval crotal bell was found in topsoil [03] of Field 03.

The rest of the finds were fragmentary, undiagnostic and modern in date.

6.3.2 Lead

Seven lead objects were recovered from topsoil in Fields 01-03.

Two musket balls were found - one with a diameter of 13mm from topsoil [01] in Field 01, and the other with a diameter of 12mm from topsoil [02] in Field 02. A lead weight with an iron attachment loop was also found in the topsoil of Field 02. Weights such as these were used from the Roman period right up into the modern times, and are still used today in some parts of the world. It seems likely that this piece is of post-medieval date.

The rest of the lead assemblage comprised an oval stud, waste fragments and an undiagnostic decorative floral fitting or mount.

6.4 Finds Conclusions

The objects collected during this watching brief, albeit although all from topsoil deposits range from prehistoric to modern post-medieval date, provide a background activity of.

7.0 CONCLUSIONS

Monitoring along the route of the Benhall-Snape pipeline established that no archaeological features were present and produced a surprisingly small assemblage of artefacts, which is perhaps surprising given the relatively high archaeological potential of this part of Suffolk.

The six struck flints and sherd of Bronze Age pottery recovered from topsoil [03] in Field 03 hint at activity during the prehistoric period in the vicinity. Prehistoric finds ranging in date from the Mesolithic to the Iron Age have been recorded previously in this general area.

The remainder of the finds mostly represent casual losses during the post-medieval and modern periods.

Acknowledgements

The author would like to thank Essex and Suffolk Water who commissioned and funded the project.

Colin Pendleton of Suffolk County Council's Archaeological Service provided the Historic Environment Record search.

Andy Barnett, along with the author carried out the fieldwork. The finds were processed, recorded and reported on by Rebecca Sillwood.

This report was illustrated and produced by David Dobson and edited by Jayne Bown.

Bibliography and Sources

Department for Communities 2012 *National Planning Policy Framework*
and Local Government

http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html Accessed 27.04.2012

Appendix 1: Context Summary

Context	Category	Cut Type	Fill Of	Description	Period
01	Deposit			Topsoil field 01	Modern
02	Deposit			Topsoil field 02	Modern
03	Deposit			Topsoil field 03	Modern

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
01	Composite	1	11g	Modern	Unknown object; glass in copper alloy setting attached to webbing strip
01	Copper-Alloy	1	5g	Post-medieval	William III; farthing, 2nd issue, 1699; D22
01	Copper-Alloy	1	4g	Post-medieval	Thimble; H16 D15
01	Copper-Alloy	1	4g	Post-medieval	Button; D18
01	Copper-Alloy	1	3g	Modern	Stud
01	Copper-Alloy	1	119g	Modern	Fitting
01	Lead	1	21g	Post-medieval	Stud
01	Lead	1	13g	Post-medieval	Musket ball; D13
01	Lead	1	7g	Unknown	Waste
01	Lead	1	3g	Post-medieval	Decorative fitting
01	Pottery	1	2g	Post-medieval	Flowerpot
02	Copper-Alloy	1	8g	Post-medieval	Coin; illegible; D28
02	Copper-Alloy	1	13g	Modern	Squashed tube
02	Copper-Alloy	1	2g	Unknown	Sheet fragment
02	Flint – Struck	2	4g	Prehistoric	
02	Lead	1	179g	Unknown	Weight; iron loop attached to upper edge
02	Lead	1	10g	Post-medieval	Musket ball; D12
02	Lead	1	5g	Unknown	Waste
03	Copper-Alloy	1	8g	Post-medieval	Crotal bell fragment
03	Copper-Alloy	2	1g	Unknown	Sheet fragments
03	Flint – Struck	6	54g	Prehistoric	
03	Pottery	1	2g	Prehistoric	

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Prehistoric	Flint – Struck	8
Prehistoric	Pottery	1
Post-medieval	Copper-Alloy	5
Post-medieval	Lead	4
Post-medieval	Pottery	1
Modern	Composite	1
Modern	Copper-Alloy	3
Unknown	Copper-Alloy	3
Unknown	Lead	3

Appendix 3: OASIS Report Summary

OASIS DATA COLLECTION FORM: England

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Printable version

OASIS ID: norfolka1-135421

Project details

Project name	Benhall-Snape
Short description of the project	An archaeological watching brief was conducted for Essex and Suffolk Water ahead of the installation of a water main between the parishes of Benhall and Snape in Suffolk. Despite the high archaeological potential of the land over which the route of the water main traversed, no archaeological features were encountered. A total of eight struck flints were recovered from the topsoil during the monitoring indicating prehistoric human activity in the vicinity. A number of post-medieval and modern metal detected finds were also collected, probably representing casual losses.
Project dates	Start: 04-11-2012 End: 12-12-2012
Previous/future work	No / No
Any associated project reference codes	SNP 101 - HER event no.
Any associated project reference codes	BAU2686 - Contracting Unit No.
Type of project	Recording project
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	NONE None
Significant Finds	STRUCK FLINT Late Prehistoric
Significant Finds	POT Late Prehistoric
Significant Finds	POT Post Medieval
Investigation type	""Watching Brief""
Prompt	Water Act 1989 and subsequent code of practice

Project location

Country	England
Site location	SUFFOLK SUFFOLK COASTAL SNAPE Benhall-Snape new water main
Study area	4500.00 Square metres
Site coordinates	TM 3798 6127 52 1 52 11 51 N 001 28 58 E Line

Site coordinates TM 3934 5926 52 1 52 10 44 N 001 30 04 E Line

Project creators

Name of Organisation NPS Archaeology

Project brief originator Suffolk County Council Archaeological Services

Project design originator NPS Archaeology

Project director/manager david whitmore

Project supervisor Mick Boyle

Type of sponsor/funding body Utility

Name of sponsor/funding body Essex and Suffolk Water

Project archives

Physical Archive recipient SCCAS

Physical Contents "Ceramics","Metal","Worked stone/lithics"

Digital Archive recipient NPS Archaeology

Digital Contents "Ceramics","Metal","Worked stone/lithics","other"

Digital Media available "Images raster / digital photography","Images vector","Spreadsheets","Text"

Paper Archive recipient SCCAS

Paper Contents "Ceramics","Metal","Worked stone/lithics","other"

Paper Media available "Context sheet","Report"

Project bibliography 1

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Appendix 4: Archaeological Specification

Brief and Specification for Continuous Archaeological Recording

BENHALL TO SNAPE MAINS SCHEME, SUFFOLK

Although this document is fundamental to the work of the specialist archaeological contractor the developer should be aware that certain of its requirements are likely to impinge upon the working practices of a general building contractor and may have financial implications.

1. Background

- 1.1 A new water mains pipeline is proposed between the parishes of Benhall and Snape (TM 3798 6127 to TM 3934 5926), measuring 3.7km in length, and requiring an easement strip 2-3m wide along part of the route. **Please contact the applicant for an accurate plan of the site.**
- 1.2 Essex and Suffolk Water has been advised by Suffolk County Council Archaeological Service/Conservation Team (SCCAS/CT) that this development would require a scheme of archaeological investigation to be undertaken during groundworks.
- 1.3 The proposed pipeline lies in an area of archaeological interest, recorded in the County Historic Environment Record. The route passes in close proximity to undated cropmarks (HER ref BNH 020) as well as artefact concentrations of prehistoric, Roman and medieval date (FNM 002, SNP 005, SNP 001, SNP 016). There is high potential for heritage assets of archaeological interest to be defined at this location.
- 1.4 The pipeline totals 3.7km long and is to be laid partly in the road/verge and partly in fields, at c. 5 – 20m AOD on deep sandy soils.
- 1.5 Aspects of the proposed works will cause ground disturbance that has potential to damage any heritage assets of archaeological importance that exists.
- 1.6 Assessment of the available archaeological evidence indicates that the area affected by the development can be adequately recorded by continuous archaeological monitoring and recording during all groundworks (**Please contact the developer for an accurate plan of the development**).
- 1.7 In accordance with the standards and guidance produced by the Institute for Archaeologists this brief should not be considered sufficient to enable the total execution of the project. A Written Scheme of Investigation (WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirement. This must be submitted by the developers, or their agent, to the Conservation Team of the Archaeological Service of Suffolk County Council (9-10 The Churchyard, Shire Hall, Bury St Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval. The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the WSI as satisfactory, and until confirmation has been sought by the applicant from the Local

Planning Authority. The WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the planning condition will be adequately met.

- 1.8 Before commencing work the project manager must carry out a risk assessment and liaise with the site owner, client and the Conservation Team of SCCAS (SCCAS/CT) in ensuring that all potential risks are minimised.
- 1.9 All arrangements for the excavation of the site, the timing of the work, access to the site, the definition of the precise area of landholding and area for proposed development are to be defined and negotiated by the archaeological contractor with the commissioning body.
- 1.10 The responsibility for identifying any constraints on field-work (e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c., ecological considerations rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such constraints or imply that the target area is freely available.
- 1.11 Detailed standards, information and advice to supplement this brief are to be found in *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Papers 14, 2003.
- 1.12 The Institute for Archaeologists' *Standard and Guidance for an archaeological watching brief* (revised 2001) should be used for additional guidance in the execution of the project and in drawing up the report.

2. Brief for Archaeological Monitoring

- 2.1 To provide a record of archaeological deposits which are damaged or removed by any development [including services and landscaping] associated with the proposed works.
- 2.2 The significant archaeologically damaging activity in this proposal is topsoil stripping for a 2-3m wide easement for those pipeline sections located in fields (approx 1.48km), and the excavation of an open cut trench. These and the upcast soil are to be closely monitored during and after they have been excavated by the building contractor.
- 2.3 Adequate time is to be allowed for archaeological recording of archaeological deposits during excavation, and of soil sections following excavation.

3. Arrangements for Monitoring

- 3.1 To carry out the monitoring work the developer will appoint an archaeologist (the archaeological contractor) who must be approved by SCCAS/CT.
- 3.2 The developer or his contracted archaeologist will give SCCAS/CT five working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored. The method and form of development will also be monitored to ensure that it conforms to previously agreed locations and techniques upon which this brief is based.
- 3.3 Allowance must be made to cover archaeological costs incurred in monitoring the development works by the contract archaeologist. The size of the contingency should be estimated by the approved archaeological contractor, based upon the outline works in this Brief and Specification and the building contractor's programme of works and time-table.

- 3.4 If unexpected remains are encountered SCCAS/CT must be informed immediately. Amendments to this specification may be made to ensure adequate provision for archaeological recording.

4. Specification

- 4.1 The developer shall afford access at all reasonable times to SCCAS/CT and the contracted archaeologist to allow archaeological monitoring of building and engineering operations which disturb the ground.
- 4.2 Opportunity must be given to the contracted archaeologist to hand excavate any discrete archaeological features which appear during earth moving operations, retrieve finds and make measured records as necessary. Where it is necessary to see archaeological detail one of the soil faces is to be trowelled clean.
- 4.3 All archaeological features exposed must be planned at a scale of 1:20 or 1:50 on a plan showing the proposed layout of the development, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded.
- 4.4 A photographic record of the work is to be made of any archaeological features, consisting of both monochrome photographs and colour transparencies/high resolution digital images.
- 4.5 All contexts must be numbered and finds recorded by context. All levels should relate to Ordnance Datum.
- 4.6 Archaeological contexts should, where possible, be sampled for palaeo-environmental remains. Best practice should allow for sampling of interpretable and datable archaeological deposits and provision should be made for this. Advice on the appropriateness of the proposed strategies will be sought from Helen Chappell, English Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy, P.L. and Wiltshire, P.E.J., 1994, *A guide to sampling archaeological deposits for environmental analysis*) is available for viewing from SCCAS.
- 4.7 All finds will be collected and processed (unless variations in this principle are agreed with SCCAS/CT during the course of the monitoring).
- 4.8 The data recording methods and conventions used must be consistent with, and approved by, the County Historic Environment Record.

5. Report Requirements

- 5.1 An archive of all records and finds is to be prepared consistent with the principles of *Management of Archaeological Projects (MAP2)*, particularly Appendix 3. This must be deposited with the County Historic Environment Record within three months of the completion of work. It will then become publicly accessible. It must be adequate to perform the function of a final archive for deposition in the County Historic Environment Record (The County Store) or museum in Suffolk.
- 5.2 The project manager must consult the County Historic Environment Record Officer to obtain an event number for the work. This number will be unique for each project or site and must be clearly marked on any documentation relating to the work.
- 5.3 Finds must be appropriately conserved and stored in accordance with *UK Institute of Conservators Guidelines*.

- 5.4 Every effort must be made to get the agreement of the landowner/developer to the deposition of the full site archive, and transfer of title, with the intended archive depository before the fieldwork commences. If this is not achievable for all or parts of the finds archive then provision must be made for additional recording (e.g. photography, illustration, scientific analysis) as appropriate.
- 5.5 The project manager should consult the intended archive depository before the archive is prepared regarding the specific requirements for the archive deposition and curation, and regarding any specific cost implications of deposition. The intended depository should be stated in the WSI, for approval. The intended depository must be prepared to accept the entire archive resulting from the project (both finds and written archive) in order to create a complete record of the project.
- 5.6 If the County Store is not the intended depository, the project manager should ensure that a duplicate copy of the written archive is deposited with the County HER.
- 5.7 If the County Store is the intended location of the archive, the project manager should consult the SCCAS Archive Guidelines 2010 and also the County Historic Environment Record Officer regarding the requirements for the deposition of the archive (conservation, ordering, organisation, labelling, marking and storage) of excavated material and the archive. A clear statement of the form, intended content, and standards of the archive is to be submitted for approval as an essential requirement of the WSI.
- 5.8 The WSI should state proposals for the deposition of the digital archive relating to this project with the Archaeology Data Service (ADS), and allowance should be made for costs incurred to ensure proper deposition (<http://ads.ahds.ac.uk/project/policy.html>).
- 5.9 A report on the fieldwork and archive, consistent with the principles of *MAP2*, particularly Appendix 4, must be provided. The report must summarise the methodology employed, the stratigraphic sequence, and give a period by period description of the contexts recorded, and an inventory of finds. The objective account of the archaeological evidence must be clearly distinguished from its interpretation. The Report must include a discussion and an assessment of the archaeological evidence, including palaeoenvironmental remains recovered from palaeosols and cut features. Its conclusions must include a clear statement of the archaeological value of the results, and their significance in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).
- 5.10 An unbound hardcopy of the report, clearly marked DRAFT, must be presented to SCCAS/CT for approval within six months of the completion of fieldwork unless other arrangements are negotiated with the project sponsor and SCCAS/CT.
- 5.11 Following acceptance, a single copy of the report should be submitted to SCCAS/CT. A single hard copy should be presented to the County Historic Environment Record as well as a digital copy of the approved report.
- 5.12 A summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute of Archaeology*, must be prepared and included in the project report.
- 5.13 Where appropriate, a digital vector trench plan should be included with the report, which must be compatible with MapInfo GIS software, for integration in the County Historic Environment Record. AutoCAD files should be also exported and saved into a format that can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files.
- 5.14 At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> must be initiated and key fields completed on Details, Location and Creators forms.

- 5.15 All parts of the OASIS online form must be completed for submission to County Historic Environment Record. This should include an uploaded .pdf version of the entire report. A paper copy should also be included with the report and also with the site archive.

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Date: 24 February 2011

Ref: BenhallSnape_watermains_2010

This brief and specification remains valid for six months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.

If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority.

