

Cover Images

Machine stripping, Soham	On-site surveying
Roman corn dryer, Duxford	Guided walk along Devil's Dyke
Bronze Age shaft, Fordham Bypass	Medieval well, Soham
Human burial, Barrington Anglo-Saxon Cemetery	Timbers from a medieval well, Soham
Blue enamelled bead, Barrington	Bed burial reconstruction, Barrington Anglo-Saxon Cemetery
Aethusa cynapium 'Fool's parsley'	Medieval tanning pits, Huntingdon Town Centre
Digging in the snow, Huntingdon Town Centre	Beaker vessel
Face painting at Hinchingbrooke Iron Age Farm	Environmental analysis
Research and publication	Monument Management, Bartlow Hills

CCC AFU Report Number 887

**Water Main Renewal,
Godmanchester to Hemingford
Abbots, Cambridgeshire**

Desk-Based Assessment

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With contributions by Rog Palmer

Site Code: GOD WMR 06
CHER Event Number: N/A
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Summary

This study attempts to define the archaeological potential of land along the route of the proposed Godmanchester Water Main Renewal, running approximately from TL 2580 6850 to TL 2770 7130. It also attempts to determine the potential impact of the development proposals upon the archaeological resource and suggests possible mitigation strategies. The study was commissioned by Anglian Water. It is based upon existing sources, and the results of recent excavations in the area around the development zone.

The proposed route begins at a covered reservoir just north of Debden Farm and west of Wood Green Animal Shelter and then heads northwest alongside the A1198 (Ermine Street Roman road) towards Godmanchester. It turns abruptly to the northeast before reaching the town and passes to the southeast of Cardinal Distribution Park before crossing under the A14. Once across the A14, the pipeline route heads almost directly towards Hemingford Abbots, where it terminates.

The study area lies in a zone of high archaeological potential within the landscape of the Great Ouse Valley. This area is rich in archaeological sites from the prehistoric periods onwards.

Prehistoric finds have been discovered close to the route and further away on the gravel terrace to the north of the town, where a unique monument was excavated in the early 1990's by English Heritage. The same site also revealed evidence of Bronze Age activity, and the potential exists to find similar sites along the northern part of the route.

The pipeline route partially parallels a Roman road (Ermine Street) and skirts a Roman town (Durovigutum). The area around the development zone has been subject to archaeological investigations that have revealed a Roman cemetery, enclosures and other features.

In the area immediately to the south and east of Cardinal Park, the route may reveal post-Roman features associated with the Anglo-Saxon settlement found there.

Towards Hemingford Abbots, the remains of medieval ridge and furrow will probably be encountered and this can mask earlier archaeology, which may then be revealed in the stripped easement.

Newly commissioned aerial photographic survey has been useful in establishing the location of archaeological remains within the study area, although these are mostly limited to the medieval period.

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1 Introduction

1.1 Planning Background

Anglian Water commissioned a desk-based assessment from Cambridgeshire County Council Archaeological Field Unit (CCC AFU). The aim of this assessment is to determine the archaeological potential of the development zone, prior to development.

The work contained in this document is entirely produced from a desk-based assessment and does not include any data from physical investigation at the proposed development site.

1.2 Location, Topography and Geology

The study area consists of the route of a pipeline approximately 4.5km long. It runs from a covered reservoir on the A1198 (London Road/Ermine Street) northwest towards Godmanchester before turning sharply to the northeast. The route passes by Bearscroft Farm Bungalow and skirts the Cardinal Way development, although a smaller diameter spur also goes to the distribution park. Having passed beneath the A14 the route then heads almost directly towards Hemingford Abbots, where it terminates (Fig.1).

The route runs from TL 2580 6850 to TL 2770 7130 and falls from approximately 40m OD on the A1198 to a height of 9.10m OD in Hemingford Abbots.

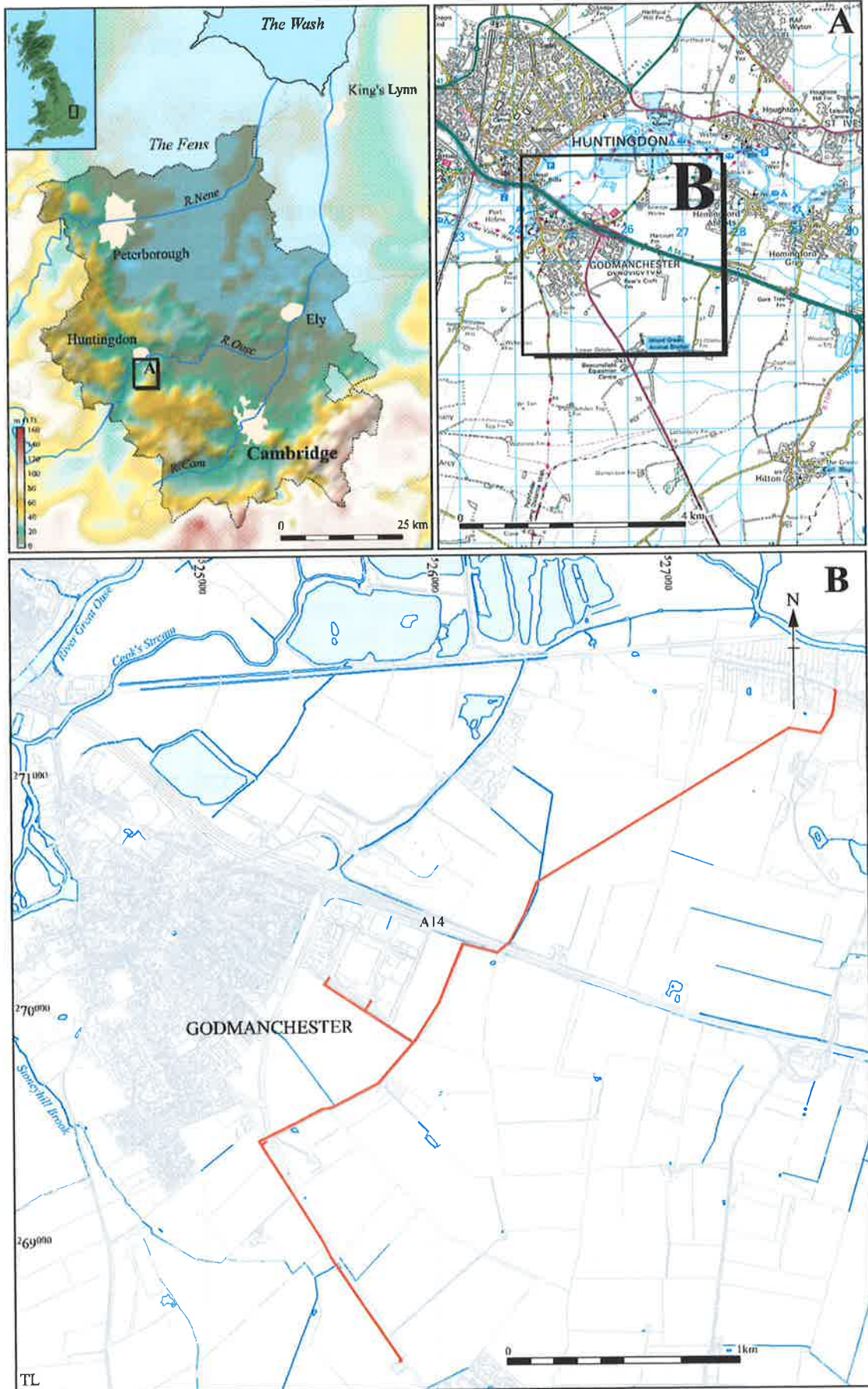
The underlying geology comprises Oxford Clay, overlain on the higher ground by Boulder Clay and in the valley by First-Second Terrace Gravels and Alluvium (British Geological Survey 1975).

2 Archaeological and Historical Sources

2.1 Documentary Sources

2.1.1 Primary Sources

Medieval and post-medieval historical sources primarily refer to the town and manor of Godmanchester and include documents (court rolls, books, terriers and rentals) dating from the 13th century onwards. The Domesday entry dates from 1086 and refers to the town as *Godmundcestre*, which was probably derived from the personal name *Godmund*.



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Figure 1: Location of the proposed route outlined (red)

Early prehistoric occupation around Godmanchester is indicated by flint tools in both Mesolithic and Neolithic forms. A Mesolithic camp and a Neolithic farmstead were located just east of the town during excavations in 1990 (Wait 1992). Contemporary with the latter is the extensive and obscure ritual complex of a giant trapezoidal enclosure and cursus excavated near Rectory Farm (McAvoy in preparation). A mortuary enclosure at the end of another cursus has been excavated just west of Brampton (Malim 2000). Bronze Age barrows (or ring ditches) at Brampton (White 1969) at Huntingdon Racecourse (Macaulay 1995) and at Rectory Farm (McAvoy op.cit.) have also been excavated. Many other sites, probably farmsteads, are likely to have been scattered over the extensive gravel terrace upon which Godmanchester sits, enabling successive populations to exploit the light, free draining soils so amenable to early farming technology. Such sites are known only through collections of flint tools.

McAvoy's excavations at Rectory Farm are of particular significance due to the scale and scope of the remains uncovered. In addition to the unprecedented large enclosure and the ring ditch mentioned above, numerous other ancillary features were located between 1988 and 1990. These include a cursus that postdates the main ritual monument, a square, ditched enclosure, and a larger subrectangular enclosure.

Pit clusters were located close to the intersection of the main enclosure and the cursus, and cremations were found near to a small ring ditch between the cursus ditches, about 200m south of this intersection. Other features in the area consist of Iron Age field systems and trackways, Roman roads and enclosures. Many isolated features could not be conclusively dated due to a lack of material evidence, and therefore might belong to one of a number of periods, due to the chronologically extensive utilisation of the area for ritual and more prosaic purposes.

Archaeological monitoring was carried out as the area was being stripped by a box scraper for gravel extraction, resulting in the collection of a large quantity of worked flint being recovered as stray finds (Author's own observations).

Although predominantly Roman occupation from the first century to the fourth century AD was found south-west of Rectory Farm at Cow Lane (CB 14646; Hinman & Kenney 1996; Jones 1999), excavations also revealed evidence of Early Neolithic and Bronze Age activity consisting of a single small pit of Late Neolithic date and residual lithics recovered from later deposits on the same site.

Similar evidence was recovered at the A14/A604 Junction site (Wait 1992) and at Cardinal Way (Gibson and Murray, in preparation). The flint recovered from the Junction site was mainly residual, derived from Romano-British ditches. At the adjacent Cardinal Distribution Park site a number of probable prehistoric features including pits and postholes

were present; all were associated with a small amount of Late Neolithic/Early Bronze Age pottery.

Within Huntingdon, Bronze Age pottery and a Neolithic ditch were recorded during evaluation and excavation in 2004 and 2005 on the Walden Road/Walden house sites (Clarke 2004 and Rachel Clarke pers. comm.)

Later prehistoric settlement is relatively better understood, not least because Iron Age pottery survives much better than earlier pottery. One such farmstead has been sample excavated just east of the town (Wait 1992) and others are known beneath modern Godmanchester in the form of roundhouses and ditched enclosures encountered below Roman occupation.

Across the Great Ouse at Huntingdon, Iron Age sites have been found and excavated. On the other side of the river at Watersmeet, Scored Ware pottery dating from the Middle to Late Iron Age was found (Cooper and Sperry, 2000). Further afield at Bob's Wood, extensive Iron Age occupation was uncovered over several years of excavation, and the finds included pottery and currency bars (Hinman 2005).

4.3 Romano-British

4.3.1 Sites Relevant to the Development

Many of the excavations within Godmanchester have revealed the presence of Romano-British burials (see 4.8 below). Other Romano-British sites in the area include Ermine Street and a series of roadside buildings to its west.

Between 1978 and 1984 Granville Rudd (unpublished; H.J.M. Green, pers. comm.) recorded the presence of a minimum of 60 bodies (TL 24 70) during the construction of housing estates at Porch Farm to the north of the study area. Anecdotal evidence gathered from Porch Farm recalled that the area of land north of the farm had been extensively quarried for gravel during the 19th century (H.J.M. Green, pers. comm.). Numerous skeletons had apparently been disturbed during this quarrying.

The inhumed remains of at least thirteen individuals were recovered during rescue excavations at London Street in 1991 within 800m of the present route (Hoyland and Wait 1992). Excavation revealed surviving traces of the southerly continuation of the Romano-British cemetery despite a high degree of truncation due to later quarrying (Macaulay 1994).

Further evidence for a cemetery beyond the southern limits of the Roman town, adjacent to Ermine Street, is known from an assessment

of an area covering c.2.5ha immediately to the south of the 1994 excavation (Macaulay 1994). This revealed a number of archaeological features surviving beneath the remains of a ridge and furrow system.

A single, isolated burial was recovered by a member of the public and reported to the AFU from the New School Site, London Road 500m north of the present route (Hinman 1996), following the completion of excavations by BUFAU in 1997. This inhumation was deposited by the AFU with the CAO in 1997 (CHER 02660A).

The mounds close to the A1198 (CHER 02471, 02475, 02497) and the A14 (CHER 02477, 02478), most of which have now been destroyed by ploughing or road widening, may all have been Roman in date. This is only certain however for the example known as Emmanuel Knoll (CHER 2478), a very small Roman barrow that contained a cremation in a vessel originally contained within a wooden box.

Ermine Street (CHER CB15034) is a major north/south route through Britain from the Roman period onwards.

4.3.2 General Background of Roman Godmanchester

The town of Godmanchester owes its Roman development to its situation on an important Roman Road (Ermine Street) adjacent to a crossing of the Ouse. A fort (Durolipons?) was established on this river crossing soon after the conquest. The fort was abandoned within a few years as the frontier moved north, but an associated civilian settlement persisted (Durovigutum).

During the Flavian period the settlement expanded and flourished. By the Hadrianic period (c. AD117-38) a *mansio* and baths were designed and built in the centre of the town, near the central crossroads. These were very large and elaborate buildings reflecting, in both their design and furnishings, the progressive Romanisation of the inhabitants. *Mansiones* were originally connected to the imperial postal service, providing overnight accommodation and fresh horses. This role later expanded to include facilities for other imperial travellers and later served as both a police post and a tax collection centre.

The Godmanchester *mansio* was one of the largest in Britain, at over 100 metres long, including stabling. The *mansio* was built around a colonnaded courtyard with bedrooms along two sides, along with kitchens, dining rooms, etc. Both *mansio* and baths were substantially built with masonry walls and were half-timbered above the ground floor. Floors were tessellated and walls were of painted plaster.

Shortly after c. AD200 the town centre was redesigned and a formal *basilica* or town hall was built, indicating that Godmanchester may have achieved the formal status of *vicus*, with a legal constitution and

rights of self-government (possibly following an edict of Caracalla in AD214 which granted Roman citizenship to all free-born members of the community).

The main building was of six bays, with an aisle on the east separated from the hall by an arcade. The new *basilica*, the *mansio* and the public baths were located in an *insulae* or small compound demarcated by ditched boundaries, and with them was a small temple apparently dedicated to a god named Abandinus, not known elsewhere and so possibly a local deity (Green 1977; Hinman 1998).

The general prosperity of the second century in Godmanchester was marred by a period of extensive flooding of land below about 10 metres OD. In the mid second century an extensive fire destroyed large tracts of the town and necessitated a massive rebuilding programme. This, plus continual resurfacing and upgrading of the principal Roman roads, required large supplies of gravel and sand, quarried locally from the underlying river terraces.

Between 1978 and 1984 Granville Rudd (unpublished; H.J.M. Green, pers. comm.) recorded the presence of a minimum of 60 bodies during the construction of housing estates at Porch Farm. Anecdotal evidence gathered from Porch Farm recalled that the area of land north of the farm had been extensively quarried for gravel during the 19th century (H.J.M. Green, pers. comm.). Numerous skeletons had apparently been disturbed during this quarrying.

During the third century the town was enclosed within masonry walls some three metres thick, backed by a clay rampart, and pierced by gates where the roads entered the town. The wall was fronted by a ditch, reaching impressive dimensions where defending the gates. Later, during the fourth century, towers for defensive artillery were added at corners, and the external ditch recut. The *basilica* and *mansio* were demolished, apparently at this time and following a disastrous fire, possibly as a source of masonry for the refurbished defences. In apparent contradiction to the provision of such effective defences, Green believes the town was less prosperous during the third century.

Also during the third century the pan-Empire custom of inhumation burial was adopted at Godmanchester, and large cemeteries were established, in typical Roman fashion, outside the town walls and along the roads approaching the town. Cemeteries are known from the following areas: along both sides of Park Lane, just west and south of the parish church, between Cambridge Street and Linden Road, along the Cambridge road, and with possibly the largest stretching from the west end of Pipers Lane south and east to Ermine street near Porch Farm. Burials associated with this latter cemetery have been exposed at Sweetings Road, Godmanchester

The *territorium* governed from Godmanchester as a *vicus* is unknown, but Green has speculated, on the basis of landscape features and artefact scatters, that it may have approximated to the modern parishes of Godmanchester and Offord Cluny. The town's prosperity was based on agriculture, though Green's excavations do document the practice of essential crafts like iron smithing and pottery production.

A massive fire of the end of the third century may have been the result of an attack and sack of the town. Civic buildings were never rebuilt, and although the town was certainly rebuilt and reoccupied it was in less elaborate style and on a smaller scale. Some of the fourth and early fifth century occupation is associated with early Anglo-Saxon pottery. The last resurfacing of Ermine street was in the fourth century, and is virtually unworn and covered with fourth century rubbish. Side roads and private homes continued to be maintained within the town.

4.4 Anglo Saxon

The fifth century occupation of Godmanchester is poorly documented; perhaps more a reflection of the state of archaeological excavation and interpretation than any true representation of the town's development. Coin issues and distinctive pottery styles cease c. AD400, and therefore ditches and pits which cut fourth century layers may date anytime from c. AD400 to 550 when more diagnostic pottery becomes common. However, stray finds of early and middle Saxon date do occur from many places within and around the town, and it is likely that the town continued to be inhabited. The late inhumation cemetery along Cambridge Road contains evidence of Saxon settlement. Middle Saxon pottery (eg Ipswich ware, dated c. AD650-850) and settlement evidence appears to focus on the area around the Roman south gate.

Excavations at Cardinal Way revealed an Early Anglo-Saxon settlement, occupied in the 6th and 7th centuries, consisting of six sunken-featured buildings, a possible driveway, a number of animal pens and possible rectangular structures, a large causewayed enclosure and an animal enclosure (see below).

4.5 The Danish Period

Between 865 and 879 the area suffered raids by roving Danish armies, culminating in permanent occupation by Guthrum after 879. The army was based at Huntingdon, and was responsible for administering the district later called Huntingdonshire. Danish occupation is known from Godmanchester, and Green speculates that this was focused on a district enclosed within large ditches appended to the Roman walled area on both sides of West Street and along the river.

In 917 Edward the Elder recaptured Huntingdon and Godmanchester, and refortified the former as a strong defensive point controlling the Ouse; Green speculates that Godmanchester was also refortified at

this time. It was Saxon policy to appropriate land under Danish ownership to the Saxon/English Crown. This would appear to have occurred in Godmanchester.

During this period the old Roman road (Ermine St) was abandoned through the town while continuing in use to the south of Godmanchester and the hexagonal ring roads of East St (Cambridge St), the Causeway, London St and Earning St were laid out, as wall streets with internal lanes to aid in defence..

Hemingford Abbots is mentioned in the chronicle of Ramsey Abbey as having been involved in a land exchange between St Aethelwold, Bishop of Winchester (963-984) and Earl Ailwin. This gift was confirmed by King Edgar in 974. It is probable that the late Saxon core of the village coincides with the medieval settlement.

4.6 Medieval

Godmanchester appears in the Domesday Book of 1086 as crown land held by Edward the Confessor, and it later became a self-governing manor responsible directly to the crown (chartered 1212). In 1086, Godmanchester had 80 villeins and 16 bordars with a total population of about 450 people. It also had three water mills - whose positions can still be plotted - based upon extensive water engineering works that may have originated in the Danish period.

Other than ridge and furrow cultivation visible within the landscape both on the subject site and in the immediate environs, there is little other evidence of medieval settlement. Ermine Street persisted in use throughout this period.

Hemingford Abbots appears in the Domesday book as *Emingeford*, meaning 'ford of the people of Hemma or Hemmi'. The church is also mentioned in Domesday although the present building contains no fabric of that date. Manor Farm is located just east of the church and these two buildings probably indicate the focus of the medieval village.

4.7 Post-Medieval

The study area lies outside the medieval and post-medieval settlement of Godmanchester and was only affected by development in recent years. Examination of the first, second and third edition Ordnance Survey maps indicate that the area was under pasture or arable farming during this period. Some structures (houses, farms, a reservoir) have been constructed within the last century along the proposed route, although these are few and the study area has largely remained under an agricultural regime.

Hemingford Park, to the east of the northern end of the proposed route, was constructed in 1842.

4.8 Previous Archaeological Investigations

Cow Lane (1984)

CHER 10158A, TL 259 714. In 1984 rescue excavations were carried out in advance of gravel extraction at Cow Lane in an area of known cropmarks associated with a villa site. The investigations showed that this area was part of the villa complex at Rectory Farm with Iron Age occupation preceding the Roman field systems (Haigh 1984).

A14/A604 Junction (1988)

CHER 09834, 09834A, TL 255 704. The area was field-walked by County Archaeology staff in 1988. The recovery of Neolithic flint and Roman pottery prompted further investigations.

A14/A604 Junction (1989)

In 1989 trenching was carried out in an area at the junction of the A14 and A604 in advance of a proposed industrial development. The site produced negative evidence although residual abraded pottery dating to the Roman period suggested the presence of a settlement in the vicinity (Wait 1990a).

A14/A604 Junction (1990)

CHER 09902, TL 255 705. Trial trenching was carried out to the south of the 1989 evaluation area. An area of 1ha in the extreme south-western corner of the proposed development produced evidence for one inhumation burial and a dense pattern of ditches, pits and postholes that were interpreted as belonging to a small Roman farmstead (Wait 1990b).

A14/A604 Junction (1991)

Further investigations in the southern part of the site produced evidence for Mesolithic, Neolithic and Bronze Age activity in the form of lithic scatters. No features dating to these periods were found. During the Late Iron Age a pattern of small ditched plots (paddocks) were present, while during the Roman period the site was a small farm (Wait 1992).

London Street (1992)

CHER 10376, TL 2470 7020. During 1992 rescue excavations were conducted in London Street following the discovery of human bones during development. At least thirteen unfurnished inhumations were excavated, together with a series of earlier features, namely pits and ditches, possibly associated with Roman suburban activity during the second and third centuries. The extent of the cemetery was not defined due to major disturbance caused by building work in progress. The cemetery probably belonged to the later third and fourth century (Hoyland and Wait 1992).

During 1993 Allison Dickens produced a desk-based assessment of land south of Duck End Farm TL 2480 / 6990. This survey covering an area of c 90ha concluded that the whole area was rich in archaeological remains, particularly those of the Roman and medieval periods although the presence of earlier deposits could not be discounted.

Sweetings Road (1994, 1995)

CHER 11421A, TL 246 698. An archaeological evaluation was carried out at Sweetings Road in 1994 in advance of housing development. The site had undergone extensive gravel pitting during the post-medieval period. The paucity of finds, with particular reference to the Roman period, would indicate that this site was outside the area of Roman occupation. Of particular interest were the finds from a rescue trench located near the eastern boundary of the development site. This contained inhumation burials, which probably belonged to the cemetery at Porch Farm and London Street (above) (Macaulay 1994).

Further evidence for a cemetery beyond the southern limits of the Roman town, adjacent to Ermine Street is known from an assessment of an area covering c 2.5ha immediately to the south of GODSW 94 TL 2470/6970. This revealed a number of archaeological features surviving beneath the remains of a ridge and furrow system (CHER 10122). A number of ditches of unknown date and function were noted. In addition a small amount of residual prehistoric material was recovered including worked flint flakes, tools and several sherds of abraded pottery dating from the late Neolithic to early Bronze Age periods. This material although unstratified was concentrated towards the eastern limit of excavation (Oakey 1995).

London Road (1994)

CHER 11423, TL 2510 6974. An assessment of a small area at London Road in 1994 revealed only the presence of 19th century field drains (Welsh 1994).

London Road (1996)

CHER CB14645, CB14646, TL 2492 6992. In 1996 an archaeological evaluation was conducted at London Road in advance of the construction of a new school complex. A preliminary earthwork survey revealed the presence of ridge and furrow. The evaluation trenches produced evidence for Late Neolithic/Early Bronze Age pits and ditches, in addition to evidence for Roman suburban ribbon occupation and associated activities, dating from the late first to the fourth century AD. Plots defined by ditches flanked the western side of Ermine Street (London Road). Rubbish pits contained charred seeds indicative of agricultural activity. A possible furnace was interpreted as evidence for (unspecified) industrial activity (Hinman 1996).

A single, isolated burial was recovered by a member of the public and reported to the AFU from the New School Site, c 100m south of the subject site, following the completion of excavations by BUFAU in 1997 (Jones 1999). This inhumation was deposited by the AFU with the CAO in 1997 (CHER 2660A).

Cow Lane (1997-1998)

CHER CB14624, CB14625, TL 2566 7078. An evaluation and subsequent excavation were undertaken on land adjacent to Cow Lane near Rectory Farm in advance of the proposed construction of an access route into the new Cow Lane landfill site. The evaluation demonstrated the exceptional level of preservation of archaeologically significant deposits from the Neolithic and later prehistoric periods in the area. Evidence of prehistoric remains in the form of ditches, pits and postholes were interpreted as belonging to the Neolithic period ritual complex at Rectory Farm. Romano-British ditches were probably part of the field systems surrounding the later villa site. Farming in the post-Roman period had caused some degree of truncation affecting shallow features (Hinman and Kenney 1998).

Chord Business Park (1998)

CHER 13012, CB 14530, TL 2566 7078. In 1998 an archaeological investigation was carried out at the Chord Business Park, on land adjacent to London Road. Trial trenching identified a group of Roman features, comprising a ditch, a human burial and a posthole, all located near London Road. The fill of the grave contained (residual?) 2nd century pottery (Coates 1998).

Cardinal Distribution Park (1998, 1999)

CHER 09834, 13011, TL 2550 7030. During 1998 an evaluation was carried out on land at the Cardinal Distribution Park in advance of redevelopment of the site. Two main periods of occupation were identified: Late Bronze Age/Early Iron Age and Early to Middle Saxon. The range of features indicated settlement during both periods and included pits and ditches for the prehistoric period, and pits, ditches, postholes and a sunken-featured building of Saxon date. Unstratified Roman pottery suggested that the site was under cultivation in Roman times.

The subsequent excavation confirmed the results from the evaluation. Three main phases of activity were identified. Phase 1 was prehistoric and consisted of a few isolated pits and a possible post-built round house dating to the late Bronze Age/Early Iron Age. Phase 2 produced evidence for Roman activity in the form of a ditch and a substantial curvilinear ditch (part of an enclosure?), suggesting agricultural activities. Phase 3 produced early Saxon remains including enclosures, trackways and domestic structures, both sunken-featured building and timber-framed buildings, consistent with the presence of a farmstead or small hamlet (Murray and Last 1999).

Cardinal West (2000)

TL 2570 7040. During 2000 an archaeological evaluation was conducted on land at Cardinal West in advance of light industrial development. The evaluation revealed the presence of a second century pit. Much of the site had been disturbed during the construction of a lorry park (Seddon 2000).

8a Almond Close (2000)

TL 2500 7052. In 2000 an archaeological evaluation was undertaken at No. 8 Almond Close in advance of the construction of a dwelling. Despite the potential for the presence of Roman burials and the course of the Via Devana, the site produced negative evidence (Boyer and Prosser 2000).

20-28 London Road (2001)

CHER CB14808, CB14809, TL 2473 7013. An archaeological evaluation was conducted near the junction between London Street and London Road, to the east of the site excavated in 1992 (Hoyland and Wait 1992), in advance of a housing development. The evaluation produced evidence for Roman activity in the form of rubbish pits from which pottery and organic remains, including cereal grains, were recovered. The significant assemblage of pottery dating from the first to the fourth century would suggest that this area was used for dumping rubbish from the Roman town. A series of post-medieval quarry pits were also recorded. These contained residual sherds of Roman pottery, and are likely to have partly obliterated the evidence for earlier occupation. The absence of human remains indicated that the western limit of the Roman inhumation cemetery excavated in 1992 at London Street did not extend as far as London Road (Abrams 2001).

Roman Way (2003)

An archaeological excavation was carried out at Roman Way, Godmanchester in advance of the construction of a proposed housing development. The work was carried out on behalf of Twigden Homes by the Archaeological Field Unit of Cambridgeshire County Council between 27th and 31st October 2003.

An area of approximately 0.24ha was excavated and contained a number of archaeological features. Some disturbance associated with development work on the site approximately twenty years ago was encountered, but this had little impact on the archaeology.

The earliest phase was represented by a "working hollow" characterised by a spread of worked flints and pottery fragments, two isolated pits and a narrow ditch. Pottery and flint from these features date this phase of activity to the Early/Middle Neolithic period.

A second phase of activity was represented by a number of boundary ditches at the southern end of the site, which were on an approximately north-west to south-east alignment. The small amount of pottery suggests that these ditches date to the Bronze Age. Three pits containing cremated human remains, probably contemporary with these ditches, were revealed in the north-west of the excavation area. Two narrow ditches running approximately at right angles to each other, presumably forming a later enclosure, on a north-north-west to south-south-east and east to west alignment also contained Bronze Age pottery.

A series of undated features, including isolated postholes, quarries and several natural anomalies were also present (Bolderson & Atkins 2003).

4.9 Site Background

The study area breaks down roughly into three sections:

Section 1 is the portion of the route alongside the A1198. Roman and undated finds have been recovered from close to this section (CHER 02490, 02475, 02471, 02497a).

Section 2 is the portion of the route that runs around the southeast of Godmanchester. The CHER entries from close to this section include Roman, Saxon and medieval finds (CHER CB15714, 09902, MCB16075, MCB 16077).

Section 3 is the portion of the route between the A14 and Hemingford Abbots. CHER entries close to the southern end of this section include prehistoric and Roman finds (CHER 01753, 02478), while to the north medieval entries lie close to the route (CHER 11428) and almost exactly on it (CHER 11427).

5 Confidence Rating

5.1 Historical Sources

Original documentary research has not been undertaken, as it lies outside the scope of this survey.

General outlines of the history of the county together with accounts of individual parishes are provided by the VCH.

The VCH tends to be biased towards the following:

- the medieval ecclesiastical and manorial history
- the medieval origin and development of the villages with emphasis on extant monuments and earthwork remains
- social history

As a whole, the available documentary sources provide useful and reliable information on the later historic, economic and social development of the town. These sources do not tend to refer to areas outwith the town, although some sources refer to particular landmarks along main roads.

5.2 The Historic Environment Record (formerly CHER)

The information provided by the CHER is affected by the following:

- the distribution of known cropmark remains and stray finds show a bias towards the later prehistoric and Roman periods, with particular reference to the gravel terraces
- the information provided by the CHER partially reflects the amount of archaeological work undertaken within the parish, including developments such as urban infill, modernisation, expansion and mineral extraction.

The CHER collection represents a variable source of information that has been influenced by fieldwork strategies, collection of finds, antiquarian observations, local and professional interests. The degree of accuracy of the entries is therefore variable.

5.3 Cartographic Evidence

The earliest surviving map of the parish is the Inclosure Map of 1803. There are three maps of this date in the care of the HRO, one of which shows the surrounding land around the town (HRO PM2/13).

Bearing in mind the varying degree of accuracy and detailing of the pre-Ordnance Survey maps, as a whole, the available cartographic evidence provides useful information for the later post-medieval and more recent development of the town and surrounding area.

5.4 Aerial Photographs

Aerial photographic assessment is affected by the coverage available and the quality of the cropmarks at the time of being photographed. This in turn is dependent upon weather and soil conditions for many months, even years beforehand. Taking these factors into account, the specialist (Rog Palmer, Air Photo Services) selects only those images that show relevant detail and replots them.

In this instance, the degree of confidence in the results is good.

5.5 Earthworks

While the surviving ridge and furrow has not been examined on the ground for this study, it does show up clearly at the northern end of the route when viewed on Google Earth. For most of the remainder of the route, the ridge and furrow has been ploughed flat.

5.6 Archaeological Excavations and Surveys

Archaeological investigations have confirmed the presence of prehistoric and Roman occupation sites on the gravel terraces and this complements the existing knowledge about the Roman town. Anglo-Saxon finds have begun to emerge, as well as occupation sites

Archaeological work has been prompted by expansion of the town and development within the immediate surroundings. As a consequence, the distribution of known finds reflects these interventions and offers a partial representation of the archaeological potential of the area.

6 Deposit Mapping of Archaeological Remains

In this section, an attempt has been made to map all known monuments and events and, based on this mapping, to predict the

existence of further remains within the proposed development area. These predictions should not be used to produce 'constraint maps'.

6.1 Prehistoric

Excavations on the gravel terrace north and northeast of Godmanchester have revealed a wealth of archaeological remains from the earlier prehistoric periods. While much of this has been ritual and monumental in character, the contemporary population must have lived somewhere, probably nearby and possibly on the higher ground to the southeast across which the pipeline route will run. Stray finds of worked flint have been made both on this higher ground and towards the river and while it might be likely that the population of the time would prefer the fertile river valley, the presence of further finds from the higher ground cannot be dismissed.

6.2 Romano-British

Since the inception of archaeological investigations in and around Godmanchester, it has been clear that the Roman town was well thought and laid out, prosperous and contained some impressive buildings. What has been less clear is the distribution of Roman occupation outside the town itself.

Around Huntingdon to the north, villa sites have been discovered along the riverbank of the Great Ouse, and extramural cemeteries have been found alongside Ermine Street to the south of Godmanchester. Also ranged along the roadside are a number of other occupation sites and features, including one definite and several potential barrows.

6.3 Anglo-Saxon

Early and middle Saxon occupation tends to be dispersed clusters of settlement and not villages, and this can make predicting the location of such sites problematic

Remarkably few finds of this period have been made to date, although one of the most recent and significant discoveries has been relatively close to the study area, within the Cardinal Park development. Although the site was on the western side within the development, the presence of Saxon occupation further east or south cannot be discounted.

The late Saxon focus of Hemingford Abbots probably lies beneath the modern village core, itself based upon the medieval centre. Earlier Saxon activity may have occurred here and be dispersed elsewhere nearby.

6.4 Medieval

Apart from the ridge and furrow agricultural system, there may be other remnants of the pre-Enclosure landscape such as field boundaries within the study area.

Manor Farm is located to the east of the church and these would have formed the core of the medieval village, around 700m to the east of the north terminus of the proposed route.

7 Degree of Survival of Archaeological Remains

This section broadly assesses the degree of survival of archaeological remains in the areas defined by deposit mapping. The assessment takes the form of a prediction model based on probability and not certainty. It is intended as a guide only.

The degree of preservation of potential buried remains within the study area is likely to have been affected by agricultural activity over the past 6500 years, changes in climate, development from the Roman period onwards and mineral extraction throughout history.

A major constraint to a prediction model is presented by the paucity of conclusive and datable archaeological evidence from within the study area itself. Although the proposed route approaches closely to several areas of known archaeological potential, little is known directly about the development area itself. Interpretations are therefore subject to the aforementioned provisos.

7.1 Prehistoric and Roman

Mapping suggests that the early prehistoric period may be well represented, as the location of these remains is known and the finds well preserved.

The study area is presently largely arable and appears to have been for much of its history. Archaeological features and deposits are likely to have been affected by the anthropogenic impact on the landscape, mainly through farming from the medieval period, although excavations have shown that archaeological features survive underneath the cultivated soil.

Should prehistoric features be encountered, based upon previous experience their degree of preservation is expected to be good. Although Roman remains found to date have been mostly limited to the environs of the town and have been much disturbed by subsequent construction, outwith the built up area they are far better preserved. Features such as burials, barrows or markers may be found alongside the Roman roads.

7.2 Anglo-Saxon, medieval and Post-medieval

Similarly, the few Saxon remains thus far uncovered have not been affected by development until the 1990's. Within the study area medieval and post-medieval remains are limited to ridge and furrow cultivation and former property/field boundaries known from cartographic evidence and visible on aerial photographs. Potential remains include further Saxon activity around Cardinal Park and dispersed settlement in the environs of Hemingford Abbots. Their degree of preservation below the modern topsoil should be good.

8 Rating

This is based upon the likelihood versus the available data about the known archaeological resource. In this area, the available data gives a reasonable idea of what may be found in proximity to the proposed route. Due to the nature of the available archaeological resources from within the proposed development zone, rating for most periods can only be described as low and/or unknown. However, based on the sheer number and density of remains of these periods, ratings for the prehistoric and Roman periods should be considered moderate to high:

Based on the distribution of known finds and their degree of survival in the study area, as defined in the previous sections, rating can be summarised as follows:

<i>Period</i>	<i>Distribution</i>	<i>Survival</i>
Palaeolithic/Mesolithic	Low/unknown	Unknown
Neolithic/Bronze Age	Moderate/high	Good
Iron Age/Roman	Moderate/high	Good
Saxon/medieval	Moderate/high	Fair/good
Post-medieval/Modern	Low/unknown	Unknown

9 Conclusions

The objective of this study was to assess the archaeological potential of an area around the proposed route of the Anglian Water Godmanchester to Hemingford Abbots Replacement Main scheme.

In synthesis, apart from a ridge and furrow cultivation system, there are no known archaeological sites of any date, conservation areas or listed buildings within the study area. This should not be taken as an indication of the absence of archaeology, however and remains of many periods may be encountered along the proposed route.

The expansion of the town and development around it has created numerous opportunities to investigate the archaeology of the area and this project could add considerably to the current state of knowledge.

9.1 Palaeolithic and Mesolithic

Further stray finds from these periods cannot be discounted, although they are unlikely to be found *in situ*.

9.2 Neolithic and Bronze Age

The route will approach the Neolithic and Bronze Age sites to the northwest and further ritual sites of these periods may be encountered, as well as settlement/occupation sites of the people who built these monuments.

9.3 Iron Age and Roman

Although extensive Iron Age remains have not previously been found close to the proposed route, there are undated cropmark sites that may extend into the subject area and which may prove to date to this period.

The quantity and variety of Roman remains from around the study area make it likely that further finds from the period will be located during groundworks. Although not so far identified from the periphery of Godmanchester, Roman roadside settlement is a well-known phenomena and the section of the proposed route alongside the A1198 may uncover such features. Other features that may be encountered include burials, markers and the remains of ploughed out barrows.

9.4 Saxon and medieval

The Saxon period is not well represented in the record for this area, but sites have been found nearby and further examples might be expected to be uncovered near previously identified occupation areas (Cardinal Park and Hemingford Abbots). The medieval period is comprehensively embodied by ridge and furrow, which is certain to be encountered at some point along the proposed route. Pottery and other finds of this period may also be recovered.

9.5 Post-medieval and modern

Stray finds of these periods may be encountered at any point along the proposed route. Elements of relict field systems might be expected in many parts of the subject area.

9.6 Summary

The study has demonstrated that the subject site lies within a rich archaeological landscape, surrounded by sites of all periods. Whilst largely Roman and medieval remains or finds are known from the vicinity of the proposed route itself, its overall archaeological potential

may be considered moderate, with particular emphasis placed upon the prehistoric periods.

If archaeology is encountered along the route, conditions for preservation are likely to range from good to very good, particularly at depth and where later activity has protected earlier features.

9.7 Suggestions for further work

Aerial photographic assessment of the area has been undertaken, and has shown little other than medieval ridge and furrow along the proposed route. This does not preclude the possibility that features exist along the route that are not susceptible to this technique. The masking effect of ridge and furrow is well attested and recent examples such as Caldecote, where an Iron Age Banjo Enclosure and Roman agricultural system were not seen on aerial photographs demonstrate the limitations of the practice.

Fieldwalking may reveal the location of buried sites if ploughing has begun to truncate them, incorporating finds into the topsoil. This technique would be most appropriate for areas under arable cultivation, but its effectiveness will be reduced in areas where there has been alluviation. Additionally, negative results from fieldwalking cannot be taken as indicative of archaeologically blank areas. One of the major drawbacks of such a program is that all areas of the proposed route are unlikely to be available at the same time and under identical conditions, which can lead to biases in collection. Fieldwalking is often most useful when an area can be assessed over several years.

A programme of linear trenching would be helpful to focus on areas that have demonstrated archaeological potential. Within these defined areas, a 5% sample is considered normal to form a reasonable hypothesis as to the nature of the site.

Ultimately, the relevant local authority advising on planning conditions, eg Cambridgeshire Archaeology Planning and Countryside Advice, will determine all recommendations for further work.

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British Geological Survey, 1975
Enclosure map of c.1803

Sheet 187 Drift Edition, England and Wales 1:50,000 Series
HRO LR8/325, LR8/326, PM2/13

Appendix 1: Summary of CHER Entries

HER No.	Grid Ref.	Keywords	Period	Form
00832	TL 2515 7064	Findspot	Ro	Pottery
00846	TL 252 707	Inhumation	Ro	Skeletons
00874	TL 252 706	Findspot	Ro	Pottery
00889	TL 2547 7046	Cremation	Ro	Beads, pot, bone
00968	TL 2515 7064	Rubbish pit	Ro	Pottery, glass
01753	TL 266 701	Findspot	Neo	Flint tool
01849	TL 275 715	Findspot	Neo	Flint tool
01850	TL 29 72	Findspot	Neo	Flint tool
01950	TL 28 71	Findspot	BA	Flint tool
02061	TL 252 707	Findspot	IA	Pottery
02471	TL 2596 6831	Mound	U	
02475	TL 258 685	Mound	Ro	
02477	TL 2656 7016	Tree mound	P Med	
02478	TL 2659 7012	Round barrow	Ro	Cremation
02490	TL 258 681	Beacon mound?	Ro	
02497	TL 2553 6897	Mound	U	
02497a	TL 2554 6899	Milestone	U	
02528	TL 261 694	Cropmarks	Med	Ridge and furrow
02546f	TL 254 709	Cropmarks	U	Road?
02633	TL 249 701	Findspot	Ro	Pottery
02641	TL 2554 7073	Findspot	Ro	Coin
02660	TL 248 700	House	P Med	
02660a	TL 248 700	Inhumation	Ro	Skeleton
02715	TL 253 705	Findspot	Med	Pottery, tile
02715a	TL 253 705	Findspot	AS	Pottery
02715b	TL 253 705	Inhumation	Ro	Skeletons
02715c	TL 253 705	Findspot	Ro	Coin
02717	TL 275 714	House	P Med	
02734	TL 2538 7065	Findspot	Ro	Coin
02748	TL 2734 7150	Artefact scatter	Pre	Worked flints
02749	TL 274 714	Findspot	Ro	Tile
02935	TL 252 707	Cropmarks	U	Enclosure
06824	TL 262 708	Cropmarks	U	Enclosure
09522	TL 2539 7052	Inhumation	Ro	Skeleton
09834a	TL 256 703	Findspot	Pre	Flint flake
09902	TL 255 701	Farmstead, enclosure, inhumation	IA/Ro	Pits, ditches, postholes, skeleton
10375	TL 2481 7003	Dovecote	P Med	
11421c	TL 249 699	Pits, ditches	Neo/BA	Pottery, bone, flint
11423	TL 2510 6974	Drains	P Med	
11427	TL 2720 7100	Cropmarks	Med	Ridge and furrow
11428	TL 2665 7095	Cropmarks	Med	Ridge and furrow
12117	TL 277 707	Park	P Med	
13011	TL 2550 7030	Settlement	BA/IA/Ro/AS	Grubenhaus, enclosure, field system, pits, postholes, ditches
CB14624	TL 25662 70781	Pits, postholes	Neo/BA/IA	Pottery, flint
CB14625	TL 25662 70783	Ditch	Ro	Pottery

HER No.	Grid Ref.	Keywords	Period	Form
CB15034	TL 22859 70634	Road	Ro	
CB15328	TL 278 709	Park	P Med	
CB15609	TL 25749 70408	Pit	Ro	Pottery, bone
CB15619	TL 2492 6992	Settlement	Ro	Enclosure, well, building, hearth, pits, oven
CB15714	TL 25200 69908	Field system, pits, enclosure, quarry, postholes, cremation	BA/IA/Ro/AS/Med	Pottery, flints
MCB16075	TL 25581 70154	Findspot	Mes/Neo/BA	Flint tools
MCB16077	TL 25581 70151	Gullies, drains	P Med	
MCB16151	TL 24998 69995	Findspot	Ro	Pottery
MCB16367	TL 2548 7093	Trapezoidal enclosure, cursus, ring ditch, field system	Neo/BA	Pottery, flint, antler
MCB16638	TL 2627 6843	Wind turbine	P Med	
MCB16789	TL 251 699	Findspot	AS	Coins

Interventions

HER No.	Grid Ref.	Event	Year	
ECB142	TL 25716 70379	Evaluation	1999	
ECB143	TL 25526 70267	Evaluation	1998	
ECB144	TL 25074 69815	Evaluation	1998	
ECB290	TL 24997 70517	Evaluation	2000	
ECB446	TL 25668 70759	Excavation	1997	
ECB493	TL 24925 69902	Excavation	1997-8	
ECB635	TL 25707 70160	Excavation	1990	
ECB668	TL 2659 7012	Excavation	1914	
ECB670	TL 2656 7016	Excavation	1971	
ECB671	TL 253 705	Excavation	1926	
ECB687	TL 2515 7064	Excavation	1903-4	
ECB1048	TL 25064 69655	Excavation	1994	
ECB1269	TL 25526 70267	Excavation	1999	
ECB1276	TL 25657 70341	Excavation	1989	
ECB1279	TL 24917 69881	Excavation	1996	
ECB1281	TL 25474 70474	Excavation	1960	
ECB1391	TL 25213 69931	Evaluation	2003	
ECB1697	TL 25583 70160	Excavation	1990	
ECB1986	TL 252 699	AP assessment	2003	
ECB2086	TL 25201 69915	Excavation	2003	

Key to periods:

AS	Anglo-Saxon
BA	Bronze Age
IA	Iron Age
Med	Medieval
Mes	Mesolithic
Mod	Modern
Neo	Neolithic
Pa	Palaeolithic
Pre	Prehistoric
P Med	Post-medieval
Ro	Roman
U	Undated

Appendix 2: Aerial Photographic Assessment by Rog Palmer

Summary

This assessment of aerial photographs was commissioned to examine a 500m corridor centred on the pipeline route extending between TL259682 and TL277714 in order to identify and accurately map archaeological, recent and natural features.

Medieval features in the Study Area comprise ridge and furrow cultivation and its associated headlands. Some remains in upstanding form adjacent to Hemingford Abbots but most has been levelled by modern cultivation.

Two discrete ditched enclosures are the only pre-medieval features identified within the Study Area although there is a complex ditched settlement area just to the northwest.

The combination of medieval cultivation and clay soils may restrict the differential growth of crops above sub-surface features and it is possible that other pre-medieval features remain undetected from the air within the Study Area.

Original photo interpretation and mapping was undertaken at 1:2500 level.

Introduction

This assessment of aerial photographs was commissioned to examine a 500m corridor centred on the pipeline route extending between TL259682 and TL277714 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.

Grass sometimes shows sub-surface features through the withering of the plants above them. This may occur towards the end of very dry summers and usually indicates the presence of buried walls or foundations. Such dry summers occurred in Britain in 1949, 1959, 1975, 1976, 1984, 1989 and 1990 (Bewley 1994, 25) and more recently in 1995 and 1996. This does not imply that every grass field will reveal its buried remains on these dates as local variations in weather and field management will affect parching. However, it does provide a list of years in which photographs taken from, say, mid July to the end of August may prove informative.

Permanent grass fields may also contain upstanding medieval ridge and furrow, which can cover buried pre-medieval features and mask their visibility from the air.

The above effects are not confined only to archaeological features. Disturbance of soil and bedrock can produce its own range of shadow, crop and soil differences and it is hoped that a photo interpreter, especially one familiar with local soils, is able to distinguish archaeological from other features. There may, however, 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.

The collection of military obliques recently acquired by English Heritage comprises some 70,000 prints taken in the 1940s, 50s and 60s. Subjects include anti-invasion defences and other military sites along with some post-war developments, rural and coastal sites.

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.

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. Photographs consulted are listed in the Addenda to this report.

Base maps

Digital data from original survey at 1:2500 and 1:1250 were provided by the client.

Study area

Photographs were examined in detail within a corridor of some 500m centred on the approximate route of the pipeline.

Photo Interpretation and mapping

All photographs were examined by eye and under slight (2x) magnification, viewing them as stereoscopic pairs when possible. Scanned digital copies of the most informative were transformed to match the digital data using the specialist program AirPhoto (Scollar 2002). All scanned photographs were enhanced using the default setting in AirPhoto before being examined on screen. Transformed files were set as background layers in AutoCAD Map, where features were overdrawn, making reference to the original prints, using standard conventions. Layers from this final drawing have been used to prepare the figures in this report and have been supplied to the client in digital form.

Accuracy

AirPhoto computes values for mismatches of control points on the photograph and map. In all transformations prepared for this assessment the mean mismatches were less than $\pm 1.50\text{m}$. These mismatches can be less than the survey accuracy of the base maps themselves and users should be aware of the published figures for the accuracy of large scale maps and thus the need to relate these mismatches to the Expected Accuracy of the Ordnance Survey maps from which control information was taken (OS 2006).

Commentary

Soils

The Soil Survey of England and Wales (SSEW 1983) shows the area to be situated on the clayland of West Cambridgeshire. These clay deposits are of two types: the Hemingfords and their immediate environs are on Oxford clay (soil association 411c: evesham 3) while the greater part of the Study Area is on Boulder Clay (soil association 411d: hanslope). In the Hemingford area the clay is overlain by a deposit of river terrace gravel (soil association 571u: sutton 1).

Buried archaeological features may affect crop growth on the gravel and boulder clay – although crops on the latter tend to be less responsive to sub-surface variations. Features have been identified on Oxford clay deposits elsewhere, but in smaller numbers. Crops on either clay soil usually require very dry summer conditions before differences in their growth may indicate archaeological or natural features.

Archaeological features (Figure 1)

Medieval

Fields in some 60-70% of the Study Area show evidence of medieval cultivation in the form of ridge and furrow and its associated headlands. Fields immediately adjacent to Hemingford Abbots retain these features as earthworks in permanent pasture but they have been plough-levelled over the greater part of the Area. It is likely that in medieval times all of the land within the Study Area was under cultivation.

Pre-medieval

Two small simple ditched enclosures have been identified within the Study Area and both are on land that has been in arable use on all dates of photography. No other features of archaeological or possible archaeological origin were identified within the Study Area during examination of aerial photographs.

There is, however, an expanse of multi-ditched settlement just to the north-west of the Study Corridor in the modern field centred TL261708. This was photographed on several dates and all features appear to end where they meet the medieval cultivation shown in Figure 1. This may be a false ending and features may extend into the Study Area and be masked by the medieval cultivation even though it is plough levelled.

Similar examples of masking are known in Cambridgeshire and elsewhere. Sometimes pre-medieval sites become visible after a few decades of modern ploughing, sometimes they are only recovered by field investigation (Palmer 1966). This means that pre-medieval features may remain undetected from the air in all parts of the Study Area. As an indication of what may be present, personal research on clayland south of the A14 and to the west has identified about one site per square kilometre from examination of a vertical survey taken at a critical time during the dry summer of 1996.

Non-archaeological features

No non-archaeological features were identified during photo examination for this Assessment.

Land use (Figure 2)

Most fields adjacent to Hemingford Abbots have been permanent pasture on all dates of photography. The remaining land, other than a scatter of fields that were pasture in the years shown in Figure 2, have been in arable use on all dates of photography. Features of pre-medieval date are unlikely to be identified from the air in land under permanent pasture. Elsewhere, where ridge and furrow has been levelled by modern cultivation, there is a chance that crops may grow differently above sub-surface features although it may require

photography during a drought year to record such evidence on the area's clay soils.

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Addenda: Aerial Photographs Examined

Source: Cambridge University Collection of Aerial Photographs

Vertical photographs

PHOTO_ID	PHOTO DATE	PHOTO SUBJECT	COVER TRAC	PHOTO SCALE	NGRE	NGRN
RC8EI 139-141	11 May 1982	Ouse Valley, between Little Barford and Earith	82_012	10000	527538	271186
RC8HW 018-019	10 Jul 1985	Great Gransden	85_040	10000	526378	267034
RC8JL 105-107	30 Jun 1987	South Cambridgeshire District Survey	87_031	10000	526398	267378
RC8knBN 182	16 Jul 1988	Cambridgeshire	88_c025	10000	526557	267211
RC8knBO 002	26 Aug 1988	Cambridgeshire	88_c025	10000	525663	268962
RC8knBO 104	30 Aug 1988	Cambridgeshire	88_c025	10000	527771	270805
RC8knBO 160	30 Aug 1988	Cambridgeshire	88_c025	10000	528054	271723

Oblique photographs

PHOTO_ID	PHOTO DATE	PHOTO SUBJECT	NGRE	NGRN
NS 30	25 Apr 1954	Panorama of Ermine Street, S of Godmanchester, looking SSE	525800	269200
AEF 78-82	11 May 1962	Ridge and furrow ploughing, 1.50 miles SE of Godmanchester	526200	269300
ARP 16	12 Jun 1967	Panorama near Godmanchester, looking NW	526000	268200

Source: National Monuments Record: Air Photographs (selected from cover search 3116)

Vertical collection

RAF/FNO/42: 6039-6040	13 July 1942	1:12500
RAF/HAV/149: 3194-3201	13 April 1945	1:10000
RAF/HAV/149: 3210-3217	13 April 1945	1:10000
RAF/HAV/149: 3219-3224	13 April 1945	1:10000
RAF/106G/UK/1557: 1377-1380	7 June 1946	1:9800
RAF/106G/UK/1557: 2117-2119	7 June 1946	1:9800
RAF/106G/UK/1557: 4119-4120	7 June 1946	1:9800
RAF/106G/UK/ 1717: 3267-3269	6 September 1946	1:9800
RAF/CPE/UK/1952: 1001	25 March 1947	1:10000
RAF/CPE/UK/1952: 1226-1269	25 March 1947	1:10000
RAF/CPE/UK/1952: 1273	25 March 1947	1:10000
RAF/CPE/UK/1952: 2265	25 March 1947	1:10000
RAF/CPE/UK/1952: 3265-3268	25 March 1947	1:10000
RAF/CPE/UK/1952: 3274-3280	25 March 1947	1:10000
RAF/541/483: 3271-3274	7 April 1950	1:10100
RAF/541/483: 3372-3375	7 April 1950	1:10100
RAF/541/483: 3388-3391	7 April 1950	1:10100
RAF/541/483: 4270-4272	7 April 1950	1:10100
RAF/541/483: 4371-4375	7 April 1950	1:10100
RAF/541/483: 4386-4388	7 April 1950	1:10100
RAF/82/897: 45-47	9 April 1954	1:6000
RAF/82/897: 59-61	9 April 1954	1:6000
RAF/58/2062/F21: 180-185	22 November 1956	1:10000
RAF/58/2062/F21: 214-216	22 November 1956	1:10000

RAF/58/2062/F22: 185-186	22 November 1956	1:10000
RAF/58/2062/F22: 213-214	22 November 1956	1:10000
RAF/58/2062/F22: 216-219	22 November 1956	1:10000
RAF/543/294/F21: 231-235	5 June 1958	1:5000
RAF/543/294/F21: 310-313	5 June 1958	1:5000
RAF/543/294/F22: 232-235	5 June 1958	1:5000
OS/68138: 182-184	2 June 1968	1:7500
OS/68138: 211-213	2 June 1968	1:7500
MAL/71019: 13-14	11 April 1971	1:10000
MAL/71019: 29-33	11 April 1971	1:10000
MAL/71019: 35-40	11 April 1971	1:10000
MAL/71019: 67-68	11 April 1971	1:10000
OS/73316: 505-506	16 June 1973	1:7500
OS/73316: 545-547	16 June 1973	1:7500
OS/73319: 273-276	16 June 1973	1:7500
OS/81003: 8-9	13 April 1981	1:7600
OS/83115: 4-6	20 June 1983	1:7500
OS/85241: 1007-1014	3 July 1985	1:5000
OS/85241: 1031-1034	3 July 1985	1:5000
OS/89174: 896-897	16 May 1989	1:7700
OS/89174: 939-941	16 May 1989	1:7700
OS/89174: 962	16 May 1989	1:7700
OS/95717: 38-39	15 August 1995	1:7300

Military oblique

TL2771/4 19 March 1947

Specialist collection

TL2668/1	25 April 1954
TL2668/2-5	6 July 1994
TL2670/1-2	25 July 1957
TL2670/3/251-254	2 August 1974
TL2670/4	9 April 1953
TL2670/5-6	25 April 1954
TL2670/7	26 November 1980
TL2670/8-9	30 July 1984
TL2670/11	30 July 1984
TL2670/14	26 November 1980
TL2671/6	30 July 1984
TL2671/19-20	30 July 1984
TL2770/1	26 November 1980
TL2770/3-7	26 November 1980
TL2771/2	10 June 1950

Most Informative photographs

TL2668/4
 TL2671/19
 RAF/CPE/UK/1952: 1001
 RAF/CPE/UK/1952: 1226-1269
 RAF/CPE/UK/1952: 1273
 RAF/CPE/UK/1952: 2265
 RAF/CPE/UK/1952: 3265-3268
 RAF/CPE/UK/1952: 3274-3280

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