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ARCHAEOLOGICAL EVALUATION REPORT: PROPOSED FLOOD DEFENCE IMPROVEMENT IN WASHINGBOROUGH PARISH. LINCOLNSHIRE.

NGR: TF 04927143
Site Code: WASH 01
LCNCC Acc. No. 2001.441

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Report Prepared for
Bullen Consultants (on behalf of the Environment Agency)
by Mark Allen BSc AIFA

January 2002

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Summary

- *A field evaluation was undertaken in Washingborough Parish for Bullen Consultants on a designated section of flood alleviation works: on the projected line of an Iron Age causeway.*
- *The results of a trial excavation suggest that the causeway, in its known form, does not appear to extend through the area of proposed works.*
- *A desiccated peat horizon was exposed beneath silt deposits derived from cleaning the adjacent Silkholme Drain. This sealed a wet peat containing alder trunks and branches. A sherd of Middle Bronze Age pottery was recovered from this layer, and these vessels are usually associated with funerary/ceremonial monuments of the period.*
- *A worked flint dating from the Late Neolithic period or later was recovered from a clean sand deposit, suggesting earlier activity at the site.*
- *A single wooden post of unknown age was exposed. This may be associated with a post seen in the north bank of the South Delph.*

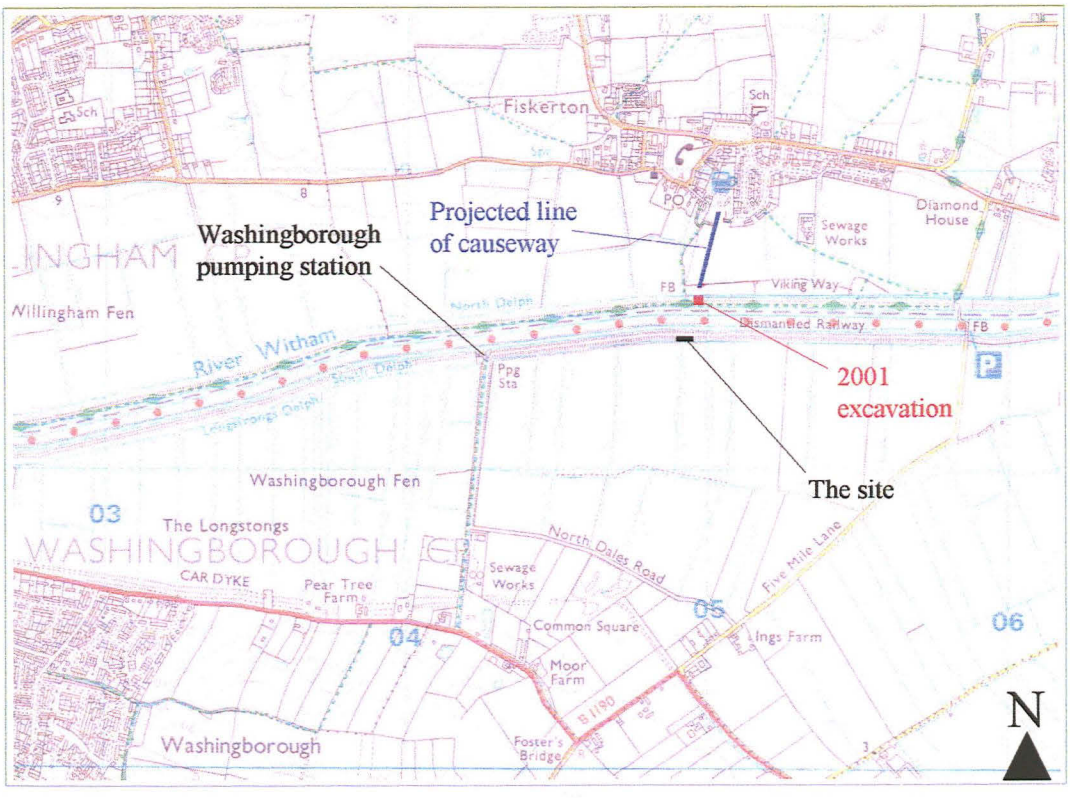


Figure 1: Site location at scale 1:25,000

1.0 Introduction

This report has been prepared for Bullen Consultants (on behalf of the Environment Agency) to assess the impact of a proposed flood defence improvement scheme that will extend across the projected line of a known early Iron Age causeway. The improvement scheme will take place to the south of the known extent of this monument, within Washingborough Parish, Lincolnshire. Its purpose is to advise both the commissioning body and Lincolnshire County Council of archaeological constraints which may exist, and which may warrant future protection and/or further investigation in advance of/during development procedures.

The land (hereafter 'the site') has been evaluated for its archaeological potential using an agreed strategy of trial excavation, the design of which was based largely on the findings of a preceding excavation c. 50m to the north, on the north bank of the River Witham at Fiskerton (Rylatt forthcoming). The results of this investigation are presented below, and incorporate a series of specialist reports that have aided the interpretation of the deposits that were sampled. The report follows current national guidelines (IFA, 1994), the guidelines set out in the Lincolnshire County Council document *Lincolnshire Archaeological Handbook: A Manual of Archaeological Practice* (LCC, 1998), and a formal project specification prepared by Pre-Construct Archaeology.

2.0 Location and description

Washingborough is in the administrative district of North Kesteven, approximately 6.5km east of Lincoln. The village lies at the edge of the Witham floodplain, towards the north boundary of the parish. The site is situated to the north-east of the village, and occupies land that is less than 2.5m OD.

The site falls within a narrow stretch of land situated between the south bank of the South Delph and the Silkholme Drain, approximately 2km north-east of Washingborough (see fig. 1). This land is currently pastoral (used for cattle grazing), and is bounded to the north by a flood embankment and a barbed wire fence with the Silkholme Drain lying immediately to the south (see fig. 2).

Washingborough is situated in the Lincoln Clay Vale, above a straight section of the present-day (ie canalized) course of the River Witham. The uppermost geological strata of the area (drift geology) consist of alluvium and Black Soil. The underlying geology comprises Jurassic Oxford Clay (BGS 1973).

Central National Grid Reference: TF 0492 7142.

3.0 Planning background

The Environmental Agency is undertaking a 5 – 6 year flood alleviation scheme that extends eastwards from Lincoln towards Boston. This scheme will affect the River Witham, the Barlings Eau, Branston Island, Stainfield Beck and the Kyme Eau.

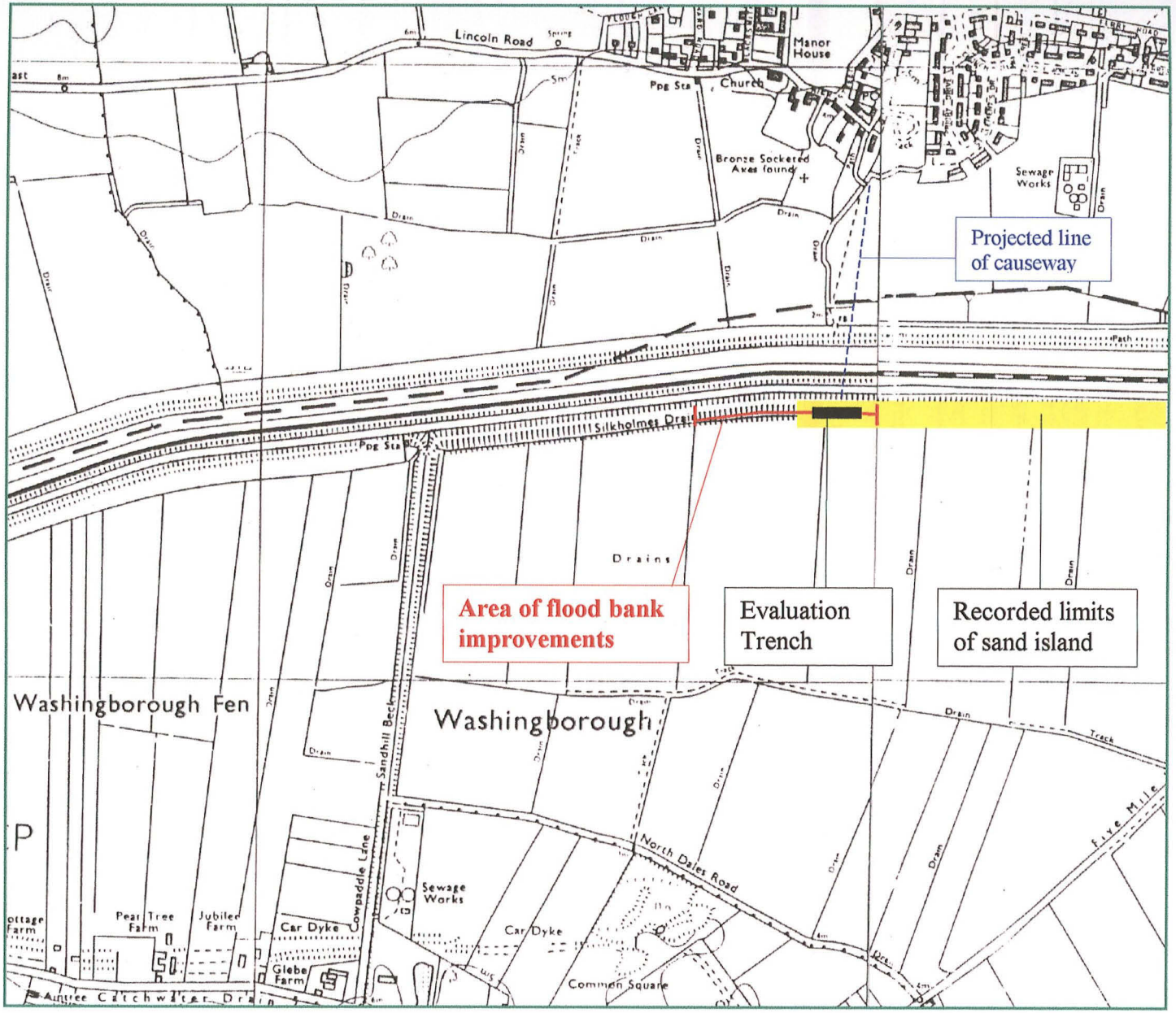


Figure 2: Plan of area of flood bank improvements. Shows location of trench, projected line of the Fiskerton causeway and area of sand island. At scale 1:10,000.
(OS copyright license No. A1 515 21 A0001)

The works involved at the current section will involve strengthening the southern flood bank of the South Delph, and the evaluation was undertaken to establish whether or not this scheme will impact the Iron Age causeway: known to exist approximately 50m to the north in Fiskerton parish.

4.0 Archaeological and historical background

Previous excavations by the former North Lincolnshire Archaeological Unit in 1981 to the north of the River Witham (Fiskerton parish) exposed a timber causeway of early Iron Age date (Field and Parker-Pearson, in press). More recent investigations by Pre-Construct Archaeology (Lincoln) provided confirmation that the monument extends at least as far as the present course of the River Witham (Rylatt forthcoming).

The current scheme was preceded by a desk-top study: commissioned by the Environment Agency to assess the impact of the 2002/2003 improvement scheme (Rylatt 2001). This study, and previous investigations, has emphasised the archaeological significance of this section of the valley. The possibility that the Iron Age causeway continues to the south of the canalised river was considered to be strong.

An impressive list of sites and artefacts has been recorded throughout much of the Witham fen, especially from this section of the river, suggesting intensive activity from the Later Mesolithic period onwards. Flint tools and debitage of this date have been recovered to the north-west of Washingborough Pumping Station. Late Mesolithic/Early Neolithic flints were recently recovered from a sandbank to the immediate west side of the recent excavations at Fiskerton (Rylatt *pers. comm.*). Further early prehistoric activity is highlighted by small scatters of worked lithic material, retrieved from fields to the south of the site. To the north, in the parish of Fiskerton, stratified worked flints were recovered during excavations at Nelson Road (Palmer-Brown 1999) and on land behind Perrins Cottages (Palmer-Brown 1994).

Between the Late Neolithic to Early Bronze Age periods, an extensive barrow cemetery emerged in Washingborough Fen. This complex, comprising at least 30 barrows, extends for 1.7km along the southern side of the river valley. The most northerly of this group lies some 350m south-west of the current site. On the north side of the river, a smaller group appears to mirror this cemetery.

Early Bronze Age prestige artefacts have been found in the vicinity of the barrows. These include a hoard of Late Bronze Age socketed axes and a stone mould, found in Washingborough Fen, c. 500m to the south-west of the area of works. A second hoard, containing between 4 and 12 axes, is recorded 150m to the south of Fiskerton church; discovered in 1890 (Rylatt 2001).

Approximately 600m to the west of the site, three trenches were excavated at what is now Washingborough Pumping Station (Coles *et al*, 1979). Artefacts such as a decorated antler cheek-piece (from a bridle), pottery, bone (animal and human), and worked wood suggested a date range from Late Bronze Age to Early Iron Age. It has

been suggested this material may have been associated with a causeway; a possible precursor to the Early Iron Age causeway at Fiskerton (Field and Parker-Pearson, in press). An alternative hypothesis is that it was associated with a wetland settlement, concentrated to the immediate south of the pumping station, where more than 300 sherds of Late Bronze Age/Early Iron Age pottery have been found.

The timber causeway at Fiskerton was classified in 1981, when an excavation demonstrated that prestige items recovered from its vicinity were associated with two rows of vertical timber posts. Each of the rows was composed of clusters of posts, constructed during successive episodes of activity between 456 and 317 BC. Further prestige artefacts and human remains were recovered (Field and Parker-Pearson, in press).

In August/September 2001, PCA carried out a further excavation on behalf of the Environment Agency (Rylatt forthcoming). This confirmed that the causeway continues southwards, beneath the north flood bank of the Witham. Amongst many prestige items that were recovered were two classic dug-out log boats. The better preserved example may have been a votive deposit.

Metalwork recovered from the Witham during the 18th and 19th centuries could be associated with the causeway, including an anthropoid hilted dagger and the Witham Shield itself, now held by the British Museum.

The site appears to have retained its special significance into the Roman period, and several pottery vessels of this date, whetstones, and seemingly non-prestige artefacts (eg tile) were deposited to the east and west of the causeway.

Further to the north, adjacent to the existing settlement of Fiskerton, an archaeological evaluation at Perrins Cottages exposed the remains of a Romano-British rubble 'hard', forming a possible landing area at the edge of a former channel of the Witham (Palmer-Brown 1994).

At the point where the present river traverses the Iron Age causeway, three elaborate 9th century silver-gilt disk headed pins were found. The recovery of such items raises the possibility that this site continued to be a focus for ritual activity well into the post-Roman era, and there is new, quite compelling, evidence that prehistoric causeways and ritual landscapes in the Witham fen may have influenced the location of medieval monastic houses (Stocker & Everson, forthcoming).

5.0 Methodology

Bullen Consultants will be advising a programme of flood alleviation works on the south bank of the Witham. This will involve partial removal of the existing bank, followed by reinforcement using high quality clay. These activities could threaten important archaeological remains, and the purpose of this evaluation, therefore, was to establish the potential threat posed by the development and to propose measures to safeguard archaeological remains, if present.

The archaeological works described in this document were requested by the Environment Agency as a basis for evaluating the impact of the development on the Iron Age causeway, and to assess the archaeological potential of this section of the flood bank. The primary purpose of the investigation was to gather and collate information: to assess the archaeological potential of the site and provide a basis for mitigating against the effects of development, if appropriate. The approach is consistent with the guidelines set out in *Archaeology and Planning: Planning Policy Guidance Note 16* (1990).

Initially, a trench measuring 40m in length was investigated. This was extended a further 20m at either end (totalling 80m of trenching). The trench location is indicated on fig. 2.

The evaluation was undertaken by a team of four experienced field archaeologists (including the author, who was project supervisor) over a period of three days, between 10th and 12th December 2001.

A JCB fitted with a smooth ditching blade was used to remove all topsoil, subsoil and underlying non-archaeological deposits in spits no greater than 10cm in depth. The process was repeated until the excavations reached a maximum depth of 0.5m, or the first archaeologically significant or natural horizon was exposed. All further excavation was by hand. In the base of the machine cut, five small slots were sample excavated through peat deposits.

Context information was recorded on Context Record Sheets, and archaeological deposits were drawn to scale, in plan and in section, with Ordnance Datum heights being entered on each class of drawing. Archaeological contexts were photographed, and some prints are reproduced within this report (see Appendix 1).

Two archaeological artefacts were recovered during the investigation (a pottery sherd and one struck flint). These finds were washed and processed, prior to submission for specialist appraisal.

6.0 **Results** (See figs. 3 and 4)

The topsoil that was common to the trench area comprised 0.15 – 0.3m of brown silt sandy loam (001). This sealed a mix of yellow sand and occasional lumps of blue/olive clay (002), 0.1 – 0.2m deep: interpreted as upcast from cleaning the adjacent Silkholme Drain. (002) sealed a dark brown/grey clayey peat (003) that felt greasy to touch. There was no wood within this desiccated horizon, possibly due to relatively recent decay. Approximately 0.5m below the modern ground surface (and below (003)) was (004), a dark brown peat. Within this deposit were numerous small to large roots, branches and twigs. One small sherd of Middle Bronze Age pottery was recovered from this context. The pottery appears to be a fragment of a Deverel Rimbury type bucket-shaped vessel of mid 2nd millennium BC date; similar to examples found at Pasture Lodge, Long Bennington, and other sites in Lincolnshire (See Appendix 2). Such vessels have strong associations with barrow monuments, usually as an outlier within the upper mound or within the associated quarry ditch.

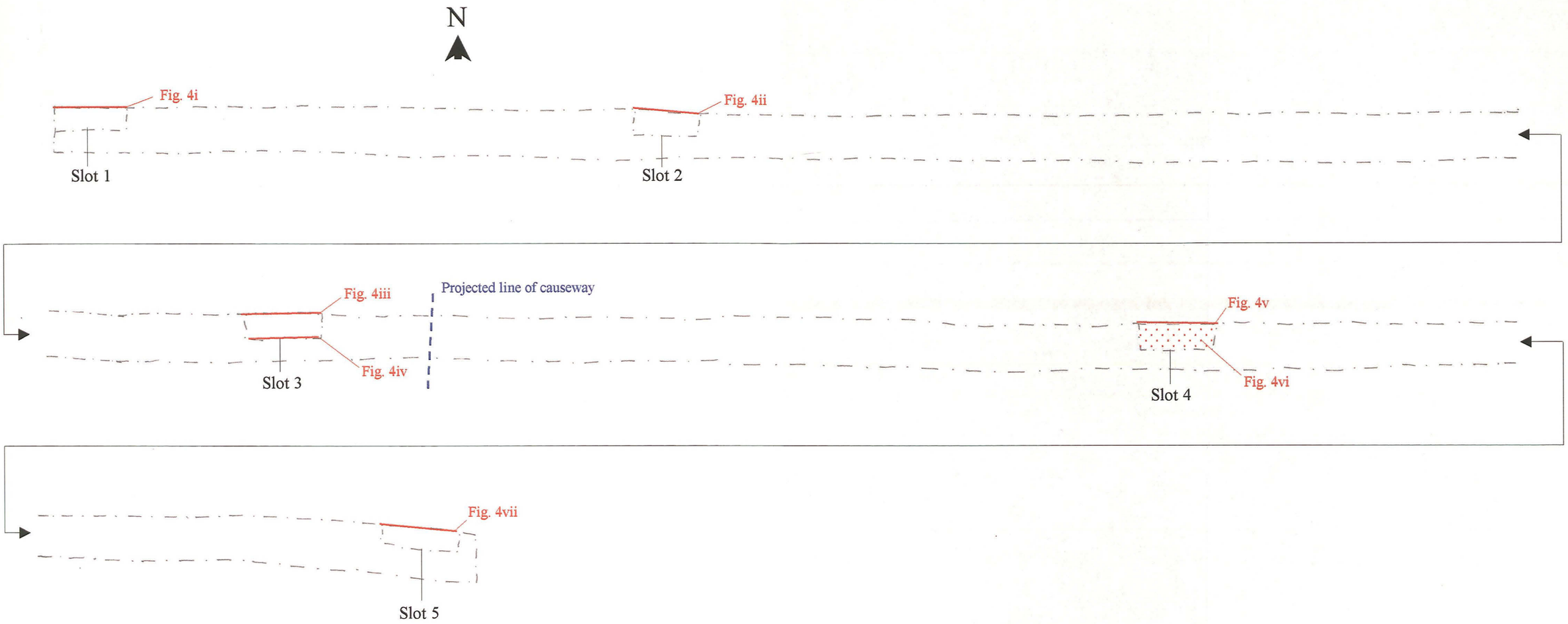
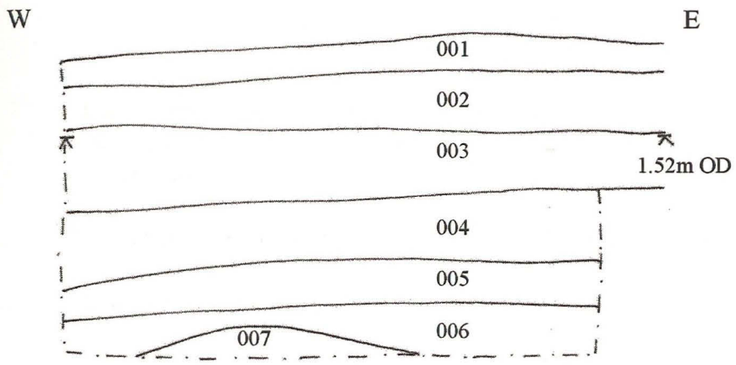
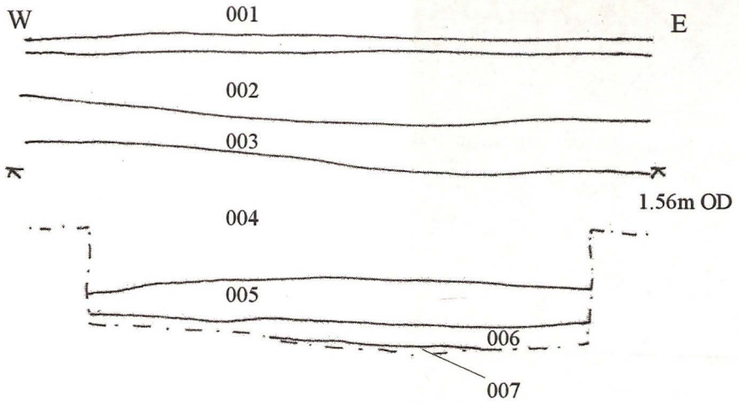


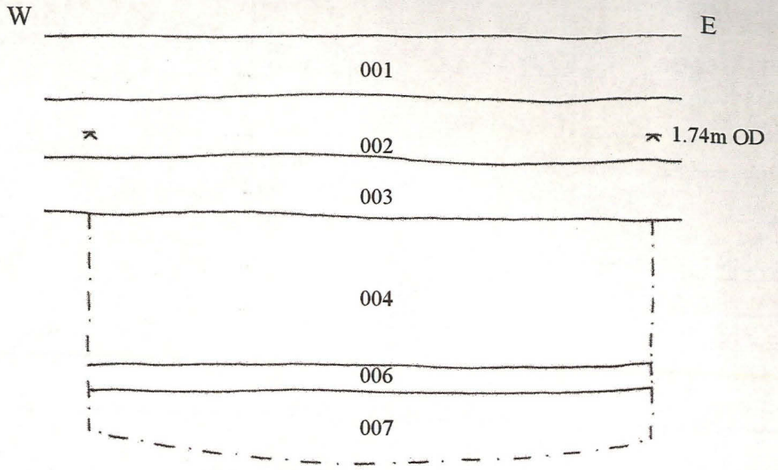
Figure 3: Detailed plan of evaluation trench showing location of slots and relative sections. Projected line of causeway is represented by a blue dashed line. At scale 1:100.



i. Slot 1 south-facing section

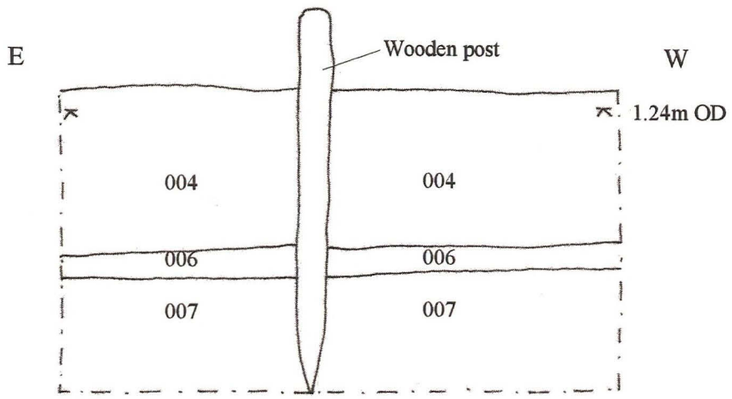


ii. Slot 2 south-facing section

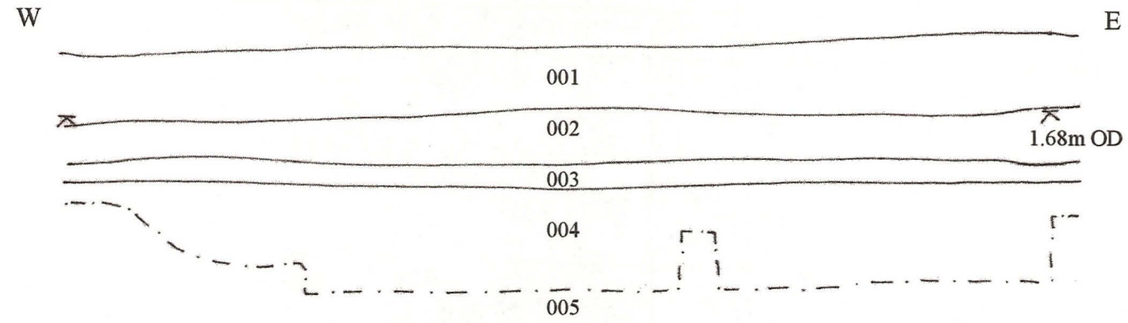


iii. Slot 3 south-facing section

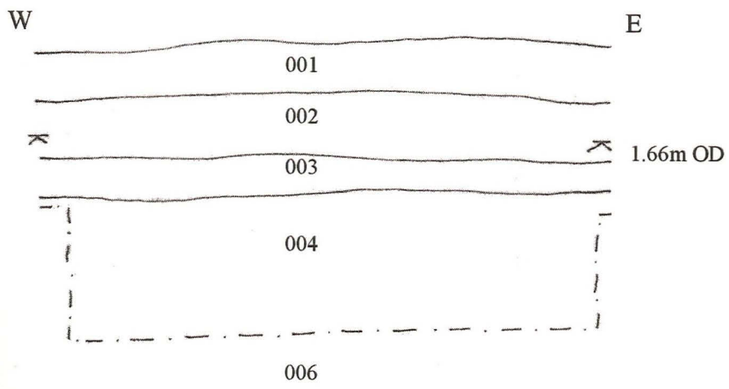
Slot 1



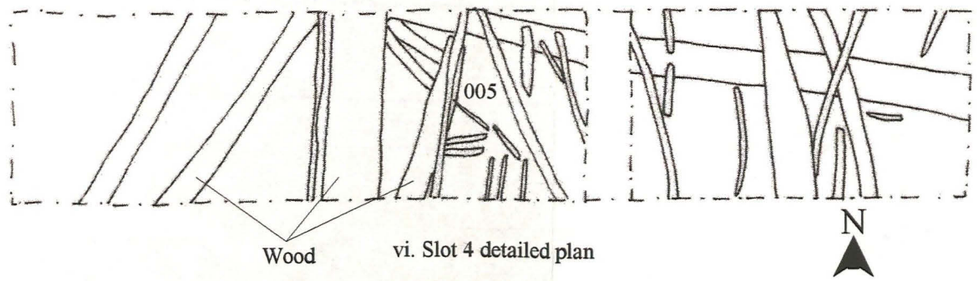
iv. Slot 3 north-facing section



v. Slot 4 south-facing section



vi. Slot 5 south-facing section



vi. Slot 4 detailed plan

0 2m

Scale

Figure 4: Detailed sections of slots and plan of slot 4 excavated within the evaluation trench, all at scale 1:20.

A distinctive layer of small and medium sized roots and branches (005) was present at either end of the trench (in slots 1, 2 and 4). The wood was thought to be alder, a species almost certainly common within this area of waterlogged soils. The alder was most frequent in slot 4, where tree trunks and branches appeared to have fallen. The lack of tool marks and the irregularity of the timbers suggest that this was a natural deposition, probably representing an alder carr horizon, formed prior to inundation by freshwater peat.

Sealed beneath (005) was a c. 0.1m thick layer of grey sand with some small roots, (006). This covered yellow/buff sand (007). Layer (006) was probably the same as (007); the colour change being due to staining by the overlying peat. A worked flint was recovered from (007) in slot 3 (See below).

During machining of the evaluation trench, a single post was exposed, surviving to 1.54m OD (within layer (002)). Slot 3 was excavated to ascertain the length of the post and to examine its form (See fig. 4iii). The post survived to 1.2m length and was 0.13m in diameter. Its lower 0.36m was chopped to a point. It appeared to have been driven through the peat and 0.45m into the underlying sand. However, it is virtually impossible to identify a secure construction level, given that the post could conceivably have been driven at a time when peats in the Witham fen were accumulating.

Following a line from the post, perpendicular with the South Delph, a second post was visible in the north bank at the waterline. Although it was not possible to investigate this feature, there is a possibility, at least, that the two posts were related.

7.0 Summary and conclusions

The trench exposed no clear evidence of the Iron Age causeway, as projected southwards from Fiskerton Fen. There are a number of hypotheses that may help to explain this observation.

The causeway may have deviated sufficiently to extend beyond the east or west edges of the trench: this seems unlikely, however, given that the recently cleaned Silkholme Drain to the immediate south shows no evidence of any truncated timber structures. Another possibility is that the monument simply terminated, somewhere between the 2001 excavation and the current investigation (the north edge of the contemporary main river channel, or the edge of a mere or pool?). A third possibility is that the causeway terminated at the edge of a sand island, of which there are several in the vicinity of the evaluation. The freshwater peat horizon was comparatively shallow on this south side of the river, and it could well be that contexts (006)/(007) represent the edge of a sand island or bar. The site itself is situated on a slight, but significant rise, and the profile exposed in the recently cleaned Silkholme Drain shows the edge of this elevation extending some 26m westwards (See figure 2). Following the drain eastwards, its sides showed no evidence of the deep peat deposits within the cleaned section, thus indicating that the sand island continued at least to Five Mile Lane. This perhaps adds further weight to the suggestion that the causeway concluded at the edge of a sand island.

To the immediate south of the site (at the junction between the Silkholme Drain and a field drain running south) a slight rise was originally interpreted by the author as a possible outlier to the nearby Washingborough barrow cemetery (See plate 1). The recovery of a small sherd of Middle Bronze Age pottery from the trench appeared to add further strength to this suggestion. A subsequent assessment, however suggests that this is unlikely, and a more plausible explanation is that this feature is a pronounced natural elevation towards the west limits of the sand island.

The two posts remain undated, and it is difficult to provide any absolute conclusions. The excavated example was not comparable with the causeway posts seen in the 2001 excavation; it was less substantial, and it had not been driven deeply into the underlying geology. Furthermore, if the two posts were related, then this would make them perpendicular to the 19th century channel, and they would not then follow the projected line of the causeway.

8.0 Effectiveness of methodology

Evaluating wetland sites such as this can be problematic, in that many of the non-intrusive techniques that are frequently applied in terrestrial archaeology (eg aerial photography, field walking, geophysical survey etc) are often not applicable to wet landscapes. Therefore, the methodology used in this evaluation was appropriate. The results of the investigation are not wholly clear, although they do suggest that the impact of the proposed scheme will be small and will not result in destruction to the archaeological resource in this area.

9.0 Acknowledgments

The author would like to thank the commissioning body, Bullen Consultants, who act on behalf of the Environment Agency. The County Archaeologist, Steve Catney, is thanked for his comments and contributions during the course of this investigation.

10.0 Bibliography

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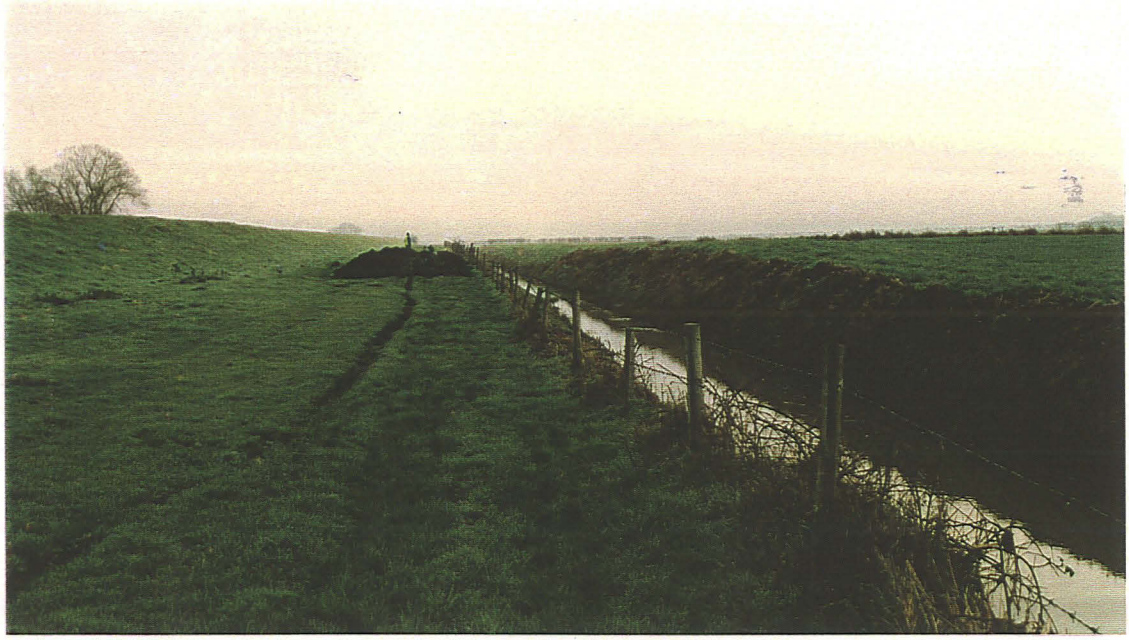
11.0 Site archive

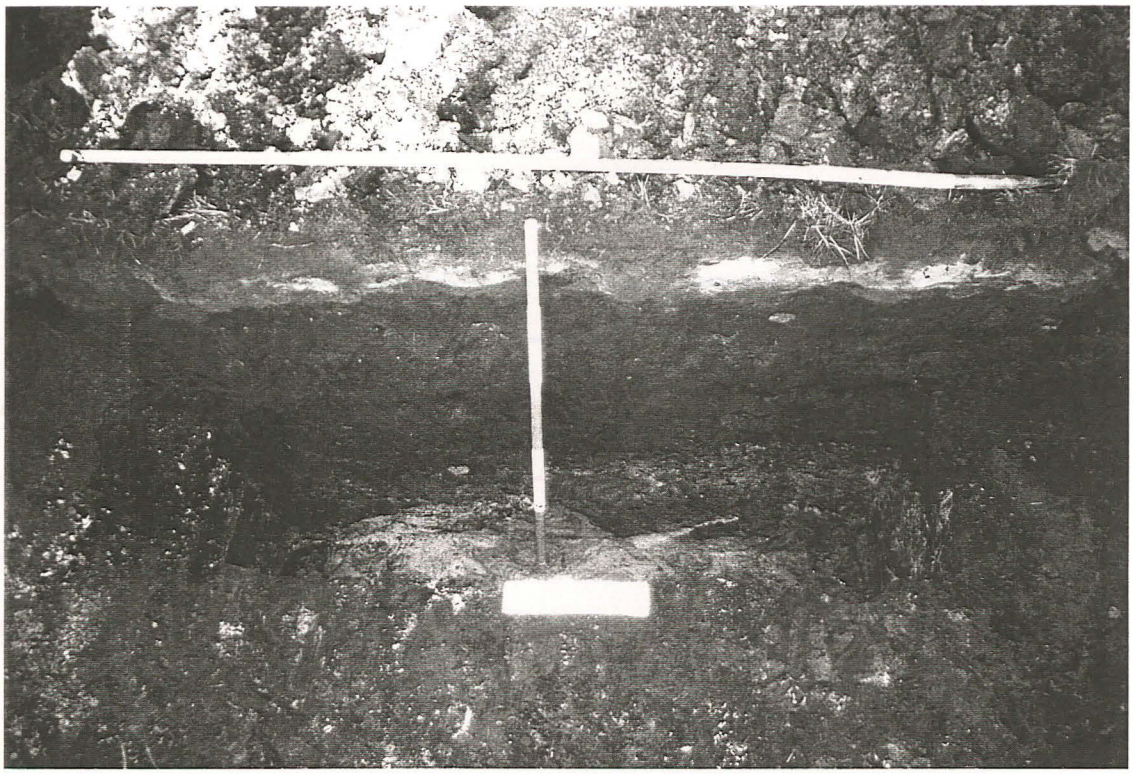
The site archive (documentary and physical) for this project is in preparation and will be deposited at Lincoln City and Council Museum within six months. Access to the archive may be granted by quoting the global accession number 2001.441.

APPENDIX 1: Colour plates

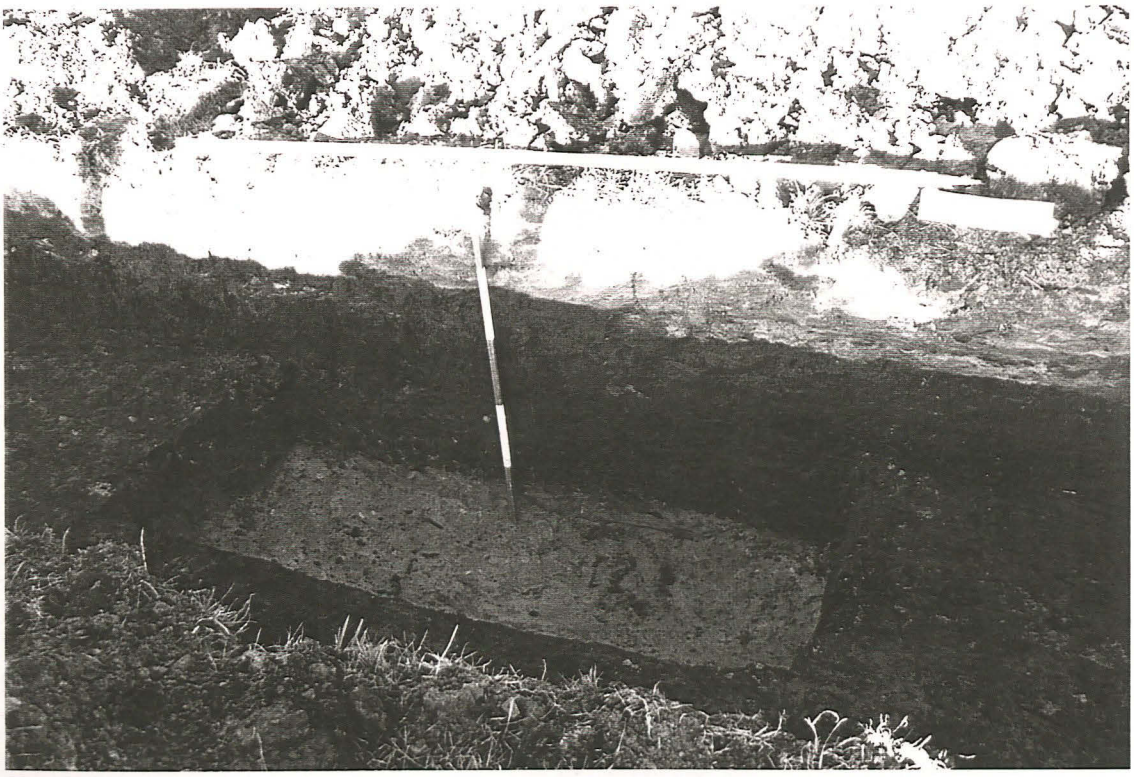


Pl.1 Site location shot, taken to the west of the trench, looking east. Note raised ground to the right of the trench on the other side of the Silkholme Drain, signifying the location of a sand island.

Pl.2 Machine trench after cleaning, looking east.

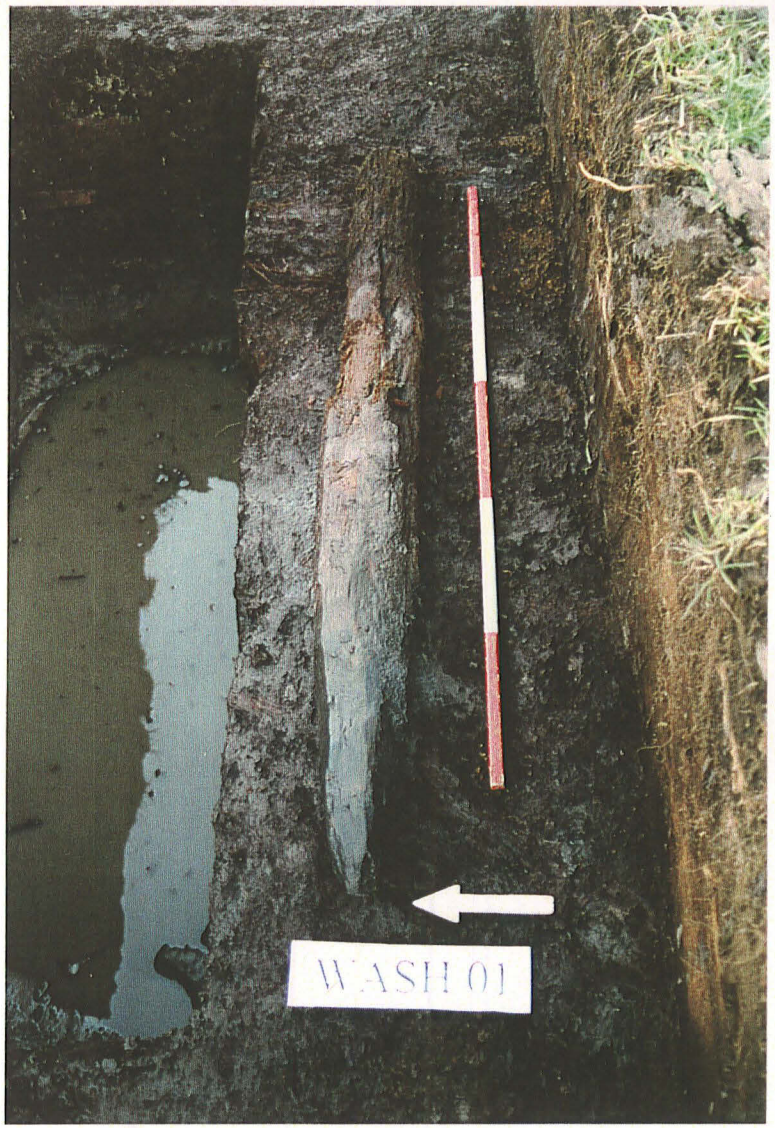


Pl.3 Slot 1 south-facing section after excavation, looking north.



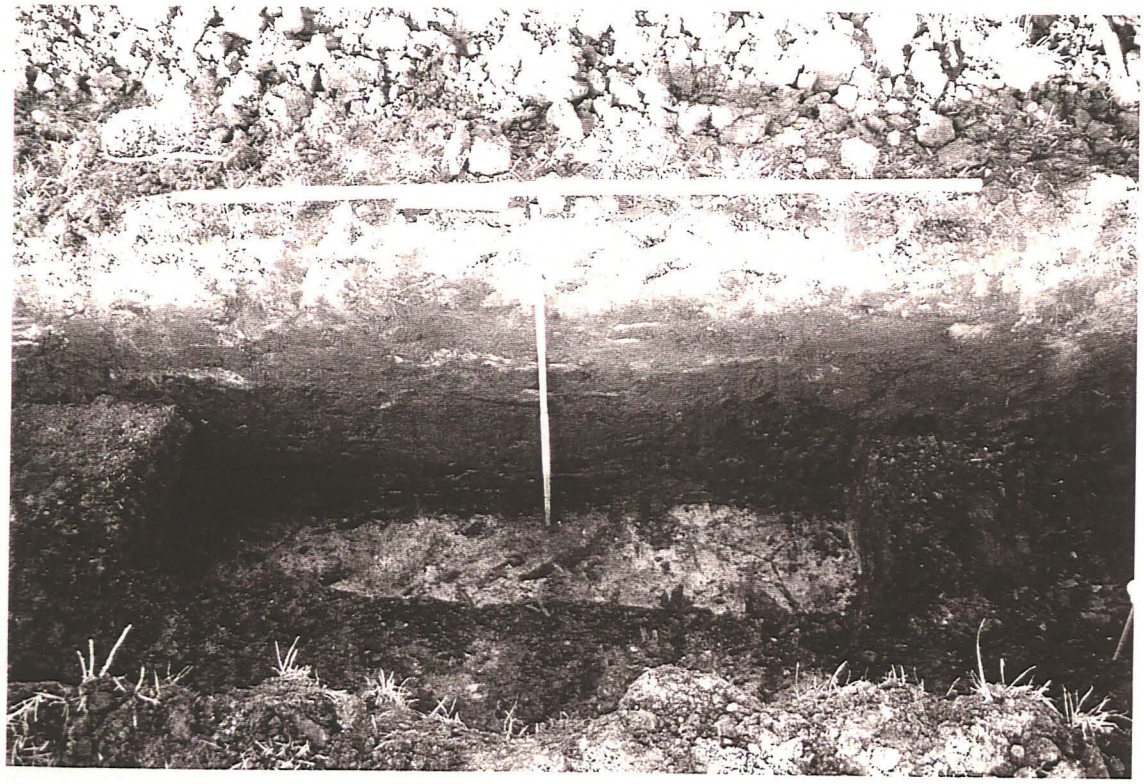
Pl.4 Slot 2 south-facing section after excavation, looking north.

Pl.5 Slot 3 during cleaning for recording purposes, looking ESE. Note wooden post in north-facing section.



Pl.6 Detail of wooden post after removal from slot 3, looking east. Post was placed back insitu after detailed recording.

Pl.7 Slot 4 south-facing section after excavation, looking NW.



Pl.8 Slot 5 south-facing section after excavation, looking north.

APPENDIX 2: Prehistoric pottery report

WASHINGBOROUGH EVALUATION (WASH 01)
TF 04927143
Report on Prehistoric Pottery

Introduction
A single sherd of pottery was found in context 004, a dark brown peat horizon, during this evaluation. The body sherd weighs 9g and was found approximately 350m from a known barrow site, and only 5m from a sand island which may represent the location of a previously unknown barrow. The material has been recorded and reported according to the Prehistoric Ceramic Research Group Guidelines of 1997.

Decoration and Fabric
The sherd is small with indication of fingernail decoration on the exterior. The clay matrix contains a moderate amount (10-19%) of grog which is poorly sorted and angular, of low sphericity and coarse size (1.00-3.00mm). The surface of the sherd is abraded with coarse angular grog clearly visible. The exterior of the sherd is orange to brown and the interior and core are black. The exterior is irregularly fired and the interior and core are not oxidised.

Typology and Comparisons
The fabric and decoration clearly indicate material of Bronze Age type. This could be part of a collar of an early Bronze Age Collared Urn, as fingernail decoration has been found on these vessels in Lincolnshire, for example at Risby (Allen 1988, fig. 15.74.390). However, the coarse grog fabric, tempered with crushed fired pottery, is strongly indicative of middle Bronze Age pottery in this region (Allen and Hopkins 2000, fig. 8). The decoration and orange exterior colour also suggest that it is far more likely to be the sherd of a middle Bronze Age Deverel Rimbury type bucket-shaped vessel, comparable to those found for example at Pasture Lodge, Long Bennington, and other sites in Lincs (Allen 1987, figs 14 -17).

Context and Dating
Such a vessel would have been an outlier to a barrow, either within the upper mound or within the ditch to a barrow which might not necessarily have had a mound. Alternatively it might have been placed in a shallow pit outside a ring ditch, as seen at Barton under Needwood, Staffs (Martin and Allen 2001). In this type of location the vessel is more liable to disturbance, movement and abrasion, as in this case.

There is some dating for vessels of this type in the north and east of England. Radiocarbon dates from associated deposits at excavations in advance of the Manchester Airport were in the range of 1985 to 1660 cal BC (recalibrated radiocarbon dates), and at Swarkestone, Derbyshire, a recalibrated date of 1440 to 1145 was obtained (*ibid,* 10), It is generally considered that this tradition began to emerge about 1700 to 1500 cal BC (Needham 1996, 133), so this sherd could be dated to the mid 2nd millennium BC.

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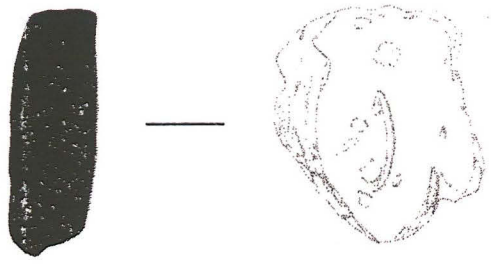
20 January 2002

Sketch of pot sherd



0 5cm

Scale

APPENDIX 3: Lithics material catalogue

Land adjacent to the South Delph, Washingborough, Lincolnshire
WASH 01
Lithic Materials: Catalogue

Report by Jim Rylatt – January, 2002

1.0 Catalogue

1 piece of worked flint was recovered during the evaluation:

Context No.		Description
007	Secondary flake	Thick flake (triangular cross-section), with complex platform, diffuse bulb and hinged termination. The surviving dorsal surface is c. 20% cortical, thin abraded cortex; dorsal scars indicate flake removal from 4 platforms. Mid brownish-grey semi-translucent flint. 51 x 28mm.

NB: Measurements are given only for complete flakes. The first figure relates to the maximum length, measured perpendicular to the striking platform; the second to maximum breadth, measured at a right angle to the length. Figures for the percentage of cortex relate to the total area of the dorsal surface and platform.

APPENDIX 4: List of Archaeological Contexts

Context No.	*Category*	*Description*
001	layer	topsoil
002	layer	upcast silts from cleaning of Silkholme Drain
003	layer	desiccated peat horizon
004	layer	peat
005	layer	alder carr?
006	layer	natural sand
007	layer	natural sand