DESK-BASED ASSESSMENT OF LAND
AT PINCHBECK MARSH PUMPING STATION,
PINCHBECK,
LINCOLNSHIRE
(PMP 05)



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DESK-BASED ASSESSMENT OF LAND
AT PINCHBECK MARSH PUMPING STATION,
PINCHBECK,
LINCOLNSHIRE
(PMP 05)

Work Undertaken For
Charles Haswell and Partners Ltd
On behalf of
Welland and Deepings Internal
Drainage Board

Report Compiled by Paul Cope-Faulkner BA (Hons) AIFA

April 2005

National Grid Reference: TF 2616 2614



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# Quality Control Pinchbeck Marsh Pumping Station, Pinchbeck PMP 05

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### 1. SUMMARY

A desk-based assessment was undertaken to determine the archaeological implications of proposed development of land at Pinchbeck Marsh Pumping Station, Pinchbeck, Lincolnshire.

The site lies adjacent to a medieval (AD 1066-1540) sea bank and close to a number of salterns that are documented from the 13<sup>th</sup> century. The focus of medieval settlement was concentrated east of the assessment area in Pinchbeck village.

During the post-medieval period (AD 1540-1900) documentary sources relate to local drainage schemes of which the pumping house is but one, dating to 1833.

Cartographic sources indicate the site was generally open ground from the 18<sup>th</sup> century to the middle of the 19<sup>th</sup> century, when the pump house with its associated buildings was constructed. Later maps show new drainage works and the removal of some former houses.

The site is currently occupied by pumping houses, including the 19<sup>th</sup> century example which is open as a museum. The proposed works are to be adjacent to existing works and it is therefore probable that some disturbance of archaeological or geological deposits will be encountered. However, the outfall pipe does cross a known medieval sea bank and partly into an adjacent saltern. This latter area may require further archaeological work. The site is unsuitable for geophysical survey, due to buried services, and fieldwalking.

### 2. INTRODUCTION

# 2.1 Definition of an Archaeological Desk-Based Assessment

An Archaeological Desk-Based Assessment is defined as 'an assessment of the known or potential archaeological resource within a specified area or site on land, inter-tidal zone or underwater. It consists of a collation of existing written, graphic, photographic and electronic information in order to identify the likely character, extent, quality, and worth of the known or potential archaeological resource in a local, regional, national, or international context as appropriate' (IFA 1999).

### 2.2 Planning Background

Archaeological Project Services was commissioned by Charles Haswell and Partners Limited to undertake a desk-based assessment of land at Pinchbeck Marsh Pumping Station, Pinchbeck, Lincolnshire. This was in order to determine the archaeological implications of the construction of a new pumping station with associated pipe laying and channel regrading works.

### 2.3 Site Location

Pinchbeck is located 3km north of Spalding and 20km southwest of Boston, in the administrative district of South Holland, Lincolnshire (Fig. 1).

Pinchbeck Marsh Pumping Station is situated 2km east of the village of Pinchbeck at National Grid Reference TF 2616 2614 (Fig. 2). The site is on generally level ground at a height of c. 3.5m OD on the western side of West Marsh Road. The proposed development area encompasses

some 0.35 hectares. The assessment area referred to throughout this report encompasses 700m around the proposed development site and is that depicted on Figure 2.

### 2.4 Soils and Geology

Local soils are of the Wisbech Series, typically coarse silty calcareous alluvial gley soils, with Wallasea/Pepperthorpe Series, alluvial and pelo-alluvial soils, immediately to the west (Robson 1990, 23, 34, 36). These soils overlie a drift geology of younger marine alluvium beneath which is a sequence of older marine alluvium that seals a solid geology of Jurassic Oxford Clay (BGS 1992).

### 3. AIMS

The purpose of the desk-based assessment is to obtain information about the known and potential archaeological resource within the vicinity of the proposed development site. In addition to the above, statutory and advisory heritage constraints were identified.

### 4. METHODS

The research undertaken in the compilation of this archaeological desk-based assessment involved the examination of all available primary and secondary sources relevant to Spalding and the immediate surrounding area. These sources consisted of:

- Historical documents held in the Lincolnshire Archives Office
- Enclosure, tithe, parish, and other maps and plans, held in the

Lincolnshire Archives Office

- Ordnance Survey maps
- Lincolnshire Sites and Monuments Record
- Parish files held by Heritage
   Lincolnshire
- Aerial photographs
- Secondary sources, in the form of periodical articles and books, held by the Lincolnshire Archives Office, Lincolnshire Library and Heritage Lincolnshire

This research was supplemented by a walkover survey of the land, undertaken to assess the current ground conditions, land-use patterns, and to ascertain the presence of any surface finds of an archaeological character, and of features that might indicate the presence of archaeological remains.

### 5. RESULTS

### 5.1 Historical Evidence

Pinchbeck is first reliably mentioned in the Domesday Survey of c. 1086. Referred to as *Pincebec* the name is possibly derived from the Old English *pinca* and the Old Norse *bekkr* and means a minnow stream (Cameron 1998, 97). An alternative *pinc*, meaning finch has also been suggested, though there is no evidence for such a bird-name used for place-names (Fellows-Jensen 1978, 219).

Earlier references to Pinchbeck appear in the charter lists of the *Historia Croylandensis*, a 14<sup>th</sup> century fabrication of the history of Crowland Abbey, and detail grants to the abbey of estates at Pinchbeck, Spalding, Holbeach and Whaplode made by Earl Ælfgar in the 1050s or early 1060s (Riley 1854). Although the work is considered spurious, it is probable that the grant details are based on a genuine transaction, as it is recorded in the 12<sup>th</sup> century Guthlac Roll (Roffe 1993, 15).

At the time of the Domesday Survey, Pinchbeck was held by Ivo Taillebois and Guy of Craon as sokeland of their manors of Spalding and Holbeach with Whaplode respectively (Foster and Longley 1976). The parish contained 12 carucates (between 770 and 880 acres) of arable land as well as 22 sokemen, 23 villeins and 12 bordars.

Salt was an important commodity and although salterns (salt-producing sites) are not mentioned in the Domesday Survey the industry was probably established in Pinchbeck soon after. The first mention of a saltern in Pinchbeck dates to 1229-53 when the prior of Spalding granted a saltern to Robert, son of Richard de Pinchbeck (Hallam 1960, 89). By 1260, the Priory was receiving salt-rent from up to 20 sokemen (ibid.). It was not only Spalding Priory that maintained salterns in Pinchbeck, John de Bath received rents from salt in 1291 and in 1327 the king confirmed the gift to Bourne Abbey of an area to make a saltern from Thomas, son of Nigel of Pinchbeck, and a measure of salt with carriage yearly from a saltern belonging to Alexander, son of Alrued of Pointon (ibid.).

Accompanying the salt industry was the widespread reclamation of land from the sea and these Newlands or 'offoldfal' are mentioned in the Spalding Priory cartulary

between 1229 and 1294 (Hallam 1965, 159). These reclaimed lands can be traced to the north of the site where Newlands Farm still preserves the name.

Later history of the area is generally associated with drainage works. The earliest mention of Blue Gowt Drain dates to 1642 and this was extensively widened in 1801 (Wheeler 1896, 118). This drain gave its name to the district which it drained. Vernatt's Drain was extended to pass east of the site in 1774 (*ibid.* 323).

Of particular significance to the site is the 1832 Drainage Act which was primarily for supporting and keeping in repair the Blue Gowt Drain (*ibid*. 119). Trustees were appointed and they recommended that a steam engine was to be erected at Stickworth Gowt (perhaps a forerunner of the Captain's Drain) which was subsequently constructed in 1833 and lies at the centre of the site.

### 5.2 Cartographic Evidence

The proposed development site is located east of the centre of Pinchbeck. Appropriate maps of the vicinity were examined.

The earliest plan reproduced here is part of 'A Map of Deeping Fen in the County of Lincoln' dating to 1763 but based on a survey of 1670 (Fig. 3). The site is located at the junction of the sea bank (referred to as The Roman Bank) and some minor watercourses, one being the Blue Gowt Drain. Vernatt's Drain had yet to be extended this far.

Dating from 1779, Armstrong's *Map of Lincolnshire* shows the site as open ground (Fig. 4). The sea bank is depicted as is Vernatt's Drain. No buildings are shown in

the proximity of the site.

The earliest detailed map of the proposed development area is the 1815 Ordnance Survey 2" drawing (Fig. 5). This shows the sea bank with a watercourse, presumably the Captain's Drain. Farm buildings can be seen southeast of the site between the sea bank and Vernatt's Drain. Bryant's map of 1828 (Fig. 6) shows little change in the arrangement of sea banks and drains.

The first significant detailed map of the vicinity is Henry Upton's 'Plan of the Old Inclosures of that part of the Parish of Pinchbeck in the County of Lincoln' dating from 1843 (Fig. 7). The junction of the Captain's Drain and Blue Gowt Drain is clearly shown and, although buildings are depicted, there is no representation of the pumping house which was built ten years earlier.

The 1<sup>st</sup> edition Ordnance Survey plan of 1890 shows for the first time the pump house and its associated buildings, principally north of the site (Fig. 8). The arrangement of the local fields has also changed from Upton's plan. Little had changed by the time of the 2<sup>nd</sup> edition plan of 1906 (Fig. 9). By 1975 the buildings north of the pumping house had disappeared and field boundaries rationalised (Fig. 2).

### 5.3 Aerial Photographic Evidence

A single photograph is held by Heritage Lincolnshire (Code: S144). This is a colour oblique view of the town of Spalding, although does show the site in the distance. However, surrounding fields contain a ripe crop and no archaeological features can be identified.

The County Sites and Monuments Record

hold no photographs that depict the proposed development area.

There are no National Monuments Record plots of the area.

### 5.4 Archaeological Data

Records of archaeological sites and finds are held in the Lincolnshire County Sites and Monuments Record. Other, secondary sources were also examined. Details of archaeological and historical remains falling within c. 700m of the proposed development site are collated in Table 1 and located on Figure 10.

Map Code	SMR Ref.	Description	National Grid Reference
1	23934	Medieval ditches	TF 2590 2540
2	-	Medieval saltern	TF 2613 2555
3	it were	Medieval saltern	TF 2608 2568
4		Medieval saltern	TF 2607 2588
5	is righter	Medieval saltern	TF 2619 2608
6	Sar-por	Medieval saltern	TF 2630 2637
7	ica icai	Medieval sea bank	Supplied Property
8	20022	Post-medieval drainage engine	TF 2617 2615
9	23935	Undated ditches	TF 2590 2540
10	23855	Undated ditches	TF 2590 2560

### Prehistoric Archaeology

Earlier prehistoric remains have not, so far, been identified within the assessment area. It is likely that most of the land in the Spalding region was submerged during much of the prehistoric period and the area would have remained too wet for settlement until the Romano-British period.

### Romano-British Archaeology

No remains of Romano-British date have been identified within the assessment area.

### Saxon Archaeology

No Saxon sites have been identified from within the assessment area. There is a possibility that within the medieval sea bank (see below) there are traces of Saxon salterns.

### Medieval Archaeology

Domestic settlement is largely restricted to the west, towards Pinchbeck. Ditches, believed to be associated with medieval field systems lie to the southwest of the assessment area (Fig. 10, No. 1).

Of particular relevance to the site is the medieval sea bank which follows the course of West Marsh Road and on the eastern side of the former Welland estuary (Fig. 10, No. 7). The sea bank on the Pinchbeck side of the estuary is first referred to in the 13<sup>th</sup> century where it is termed *Gibbseadyke* and reclamation was undertaken east of it (Hallam 1965, 44). This would suggest that the medieval salterns (identified from geology maps; BGS 1992) pre-date any reclamation and must belong to the 13<sup>th</sup> century or earlier. Five saltern mounds have been identified in the assessment area (Fig. 10, Nos. 2 to 6).

### Post-medieval Archaeology

Post-medieval remains are restricted to the Pumping House at the site which dates to 1833 (Fig. 10, No. 8).

Elsewhere in the assessment area are postmedieval drainage features including Blue Gowt Drain (first mentioned in 1642) and Vernatt's Drain, this portion of which was cut in 1774.

Buildings in the assessment area may also include post-medieval examples.

### Modern Archaeology

No modern sites are recorded at the Sites and Monuments Record within the assessment area.

### **Previous Archaeological Intervention**

Limited archaeological investigations have occurred within the assessment area, with a series of investigations having been carried out to the southwest of the site.

### 5.5 Walk-over Survey

The site was visited on 30<sup>th</sup> March 2005 to assess its potential to contain archaeological features and to note any constraints to further work. Results of the walk-over survey have been committed to Figure 11.

The site is entered by a gravel drive leading to a small parking area east of the pump house. The proposed inlet area lies adjacent to an existing concrete walled sluice which would appear to have caused disturbance to the immediate vicinity (Fig. 11, Point A). The proposed pipe would then run beneath the gravel parking area to a new pumping station and discharge chamber (Point B) which measures approximately 6m by 5m in extent. This structure is to be accompanied by a small brick built control kiosk (Point C). This is to be constructed partly over the gravel drive and a flat lawned area

The route of the proposed outfall pipe (D) then heads northeast for a distance of 37m crossing a slight rise in ground level until it reaches the medieval sea bank, now followed by the road. The outfall would be adjacent to an existing outfall pipe at the head of the Blue Gowt Drain. A slight rise in the level in the fields east of the outfall marks the site of a medieval saltern.

Services were visible within the site boundary and comprise overhead power cables as well as buried services.

The site is traversed by services which

would rule out most geophysical techniques, apart from Ground Probing Radar. Fieldwalking is considered unsuitable.

### 6. CONSTRAINTS

### 6.1 Heritage Constraints

Pinchbeck Marsh Pumping Station is a Scheduled Ancient Monuments (County No. 248) protected by the Ancient Monuments and Archaeological Areas Act of 1979 (HMSO 1979). This building is also a Grade II listed building and consequently protected by the Planning (Listed Buildings and Conservation Areas) Act of 1990. The schedule relates directly to the building and its footprint and not the surrounding land. All archaeological remains within the proposed development area are therefore protected only through the implementation of PPG16 (DoE 1990).

### 6.2 Other Constraints

No checks were carried out to determine the presence of services (gas, water, electricity, *etc.*) across the site. However, a survey provided by Charles Haswell and Partners Limited identified buried and overhead services.

If further archaeological intervention is required, the excavation of trenches would entail a certain degree of risk which would be enhanced by the use of a mechanical excavator.

## 7. ASSESSMENT OF SIGNIFICANCE

The criteria used to assess the significance of the remains present within the

assessment area were adopted from the Secretary of State's criteria for scheduling ancient monuments (Department of the Environment 1990, Annex 4; see Appendix 1).

### Period

Remains dateable from the medieval to the post-medieval periods have been recognised within the assessment area.

### Rarity

Medieval remains, associated with salt-production and sea defence, are located in close proximity to the site. These are not scarce in Lincolnshire and are an aspect of the entire coastline. However, little archaeological work has been undertaken on sea banks and medieval salterns in general and they may have rare or unusual aspects. Moreover, such features are regionally specific.

### Documentation

Records of archaeological sites and finds made in the Pinchbeck area are kept in the Lincolnshire Sites and Monuments Record.

This report provides the first site-specific consideration of the archaeological and historical aspects of the proposed development area.

There is likely to be some contemporary documentation regarding the site which has not been examined.

### **Group Value**

Medieval and later dated remains recorded within the assessment area include evidence for industry, drainage and sea defences. As such, these have moderate group value.

### Survival/Condition

Archaeological interventions within the assessment area have demonstrated that archaeological remains often survive in good condition.

### Fragility/Vulnerability

All archaeological deposits present on the site would potentially be vulnerable to disturbance from proposed development of the site.

### **Diversity**

Moderate period diversity is represented by archaeological remains of medieval to post-medieval date occurring in close proximity to the proposed development area.

Low functional diversity is provided by sites and remains relating to salt-production, drainage and sea defences in the vicinity.

### Potential

Moderate development at the site, occurring largely since the mid 19<sup>th</sup> century, may indicate some potential for the survival of any medieval or later archaeological remains at the site.

The low lying nature of the site suggests that waterlogged environmental material may survive in quite good condition.

### 8. ASSESSMENT OF IMPACT

Until the mid 19<sup>th</sup> century the site appears to have served an agricultural function, protected by an adjacent sea bank. Some impact into archaeological remains may have stemmed from earlier drainage works, particularly the Captain's Drain and Blue Gowt Drain. The construction of pumping houses in the 19<sup>th</sup> and 20<sup>th</sup>

centuries with their associated works is also likely to have had some impact, though this may be limited.

Details regarding the proposed development suggest that the impact will largely be associated with a new pump house, inlet and outlet pipes and some subsidiary structures. While the housing for the pump and the pipes are likely to impact deeply into the underlying geology, the subsidiary buildings may have less impact.

### 9. OVERVIEW

Apart from the 19<sup>th</sup> century pumping house, no other recorded archaeological sites or findspots are known from within the proposed area of development, though the site lies adjacent to a medieval saltern and sea-bank. Furthermore, concentrations of such archaeological remains extend to the northeast and southwest of the site. It is highly probable that remains associated with the saltern are restricted to east side of the sea bank and do not extend to the west. Therefore, the principal area of interest will lie in the route of the outfall pipe.

### 10. RECOMMENDATIONS

As the site lies in close proximity to a medieval sea bank and a saltern, it is probable that further archaeological work is required.

The inlet pipe and new pump house may not impact into remains associated with a sea bank and saltern. However, information regarding land use may be obtained from archaeological observation of this area. The outfall pipe crosses a sea bank, of which few have been excavated in Lincolnshire, and into the area of a medieval saltern. Archaeological monitoring would be a requirement of these works.

English Heritage, as the curator of Scheduled Monuments, are likely to require input into the proposed drainage works.

### 11. CONCLUSIONS

An archaeological desk-based assessment of Pinchbeck Marsh Pumping Station, Pinchbeck, Lincolnshire, was undertaken in order to determine the archaeological implications of the proposed development of the site.

The assessment has identified evidence of medieval and later period activity occurring within the assessment area and in close proximity to the site. It is therefore reasonable to suggest that such deposits may also occur within the proposed development area.

The site is currently used as a pumping station along with a museum and is, therefore, occupied by a range of light buildings. None of the site is suitable for geophysical prospection or fieldwalking.

### 11. ACKNOWLEDGEMENTS

Archaeological Project Services would like to thank Mr S. Parker of Charles Haswell and Partners Limited who commissioned this report on behalf of the Welland and Deepings Internal Drainage Board. Thanks are also due to Mr S. Pywell of the Welland and Deepings Internal Drainage Board for permitting access to the site.

This work was coordinated by Gary Taylor who edited this report along with Tom Lane. Access to the County Sites and Monuments Record was kindly provided by Mark Bennet and Sarah Grundy of the Archaeology Section, Lincolnshire County Council. Thanks are also due to the staff of Lincolnshire Archives Office and Lincoln Central Library. Dave Start permitted examination of the parish files and library maintained by Heritage Lincolnshire.

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### 13. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey

DoE Department of the Environment

HMSO Her Majesty's Stationery Office

IFA Institute of Field Archaeologists

LAO Lincolnshire Archives Office

SMR Sites and Monuments Record

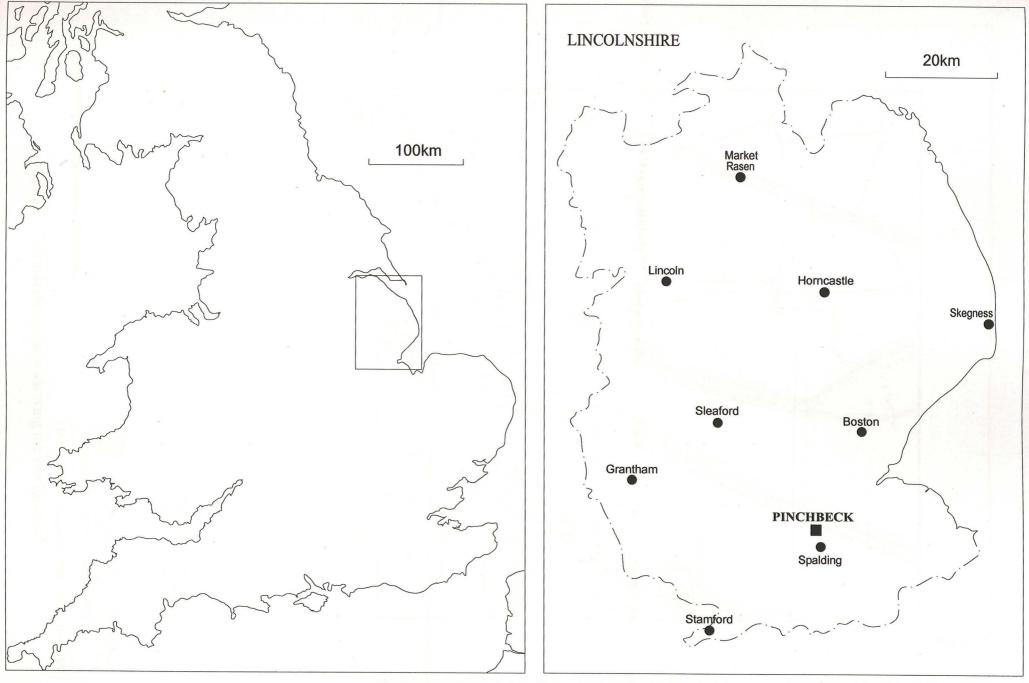


Figure 1 - General Location Plan

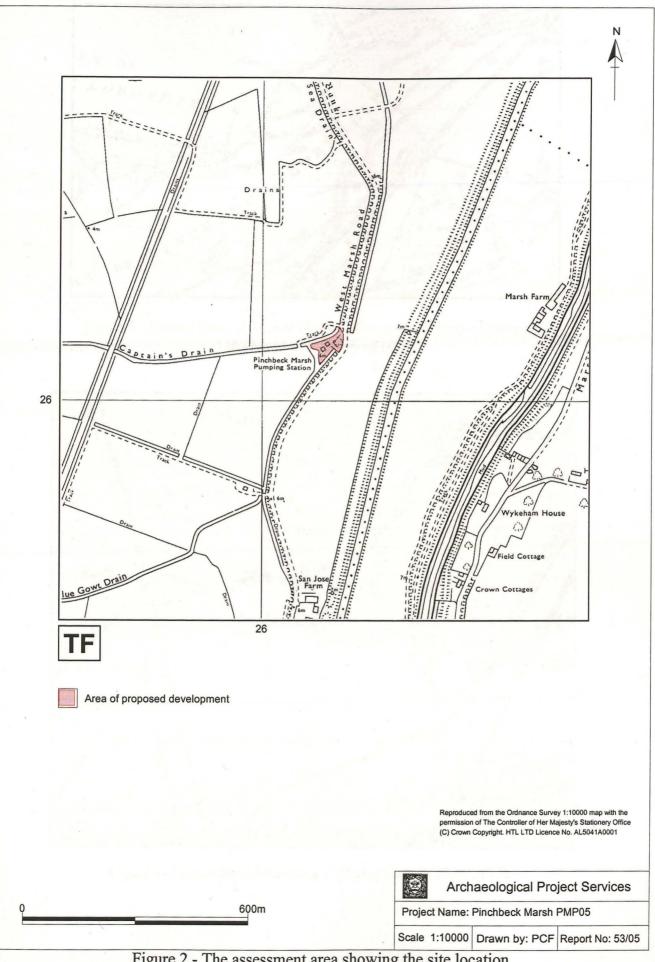


Figure 2 - The assessment area showing the site location

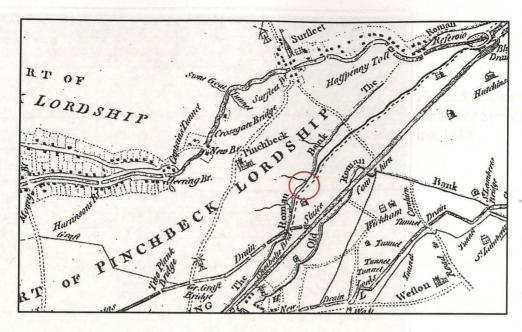


Figure 3 - Extract from 'A Map of Deeping Fen in the County of Lincoln', 1763 based on a survey of 1670

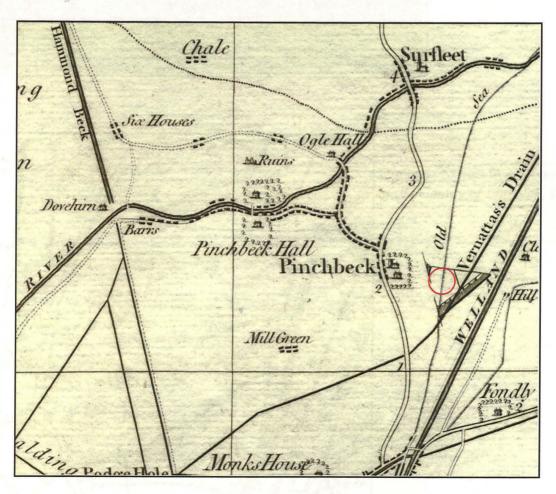


Figure 4 - Extract from Armstrong's 'Map of Lincoln-shire', 1778

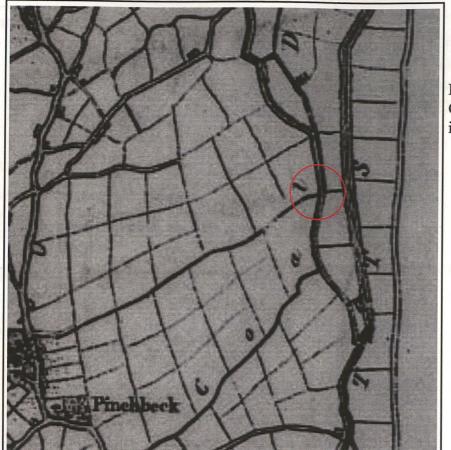


Figure 5 - Extract from Ordnance Survey 2" drawing, 1815

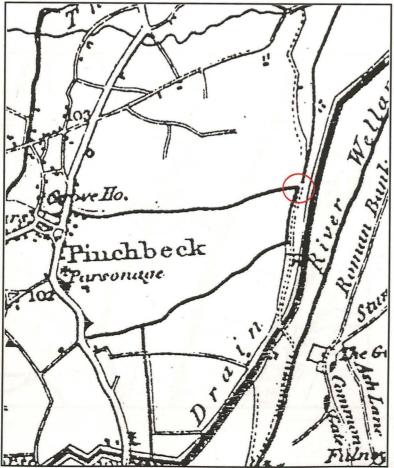


Figure 6 - Extract from Bryant's 'Map of the County of Lincoln', 1828

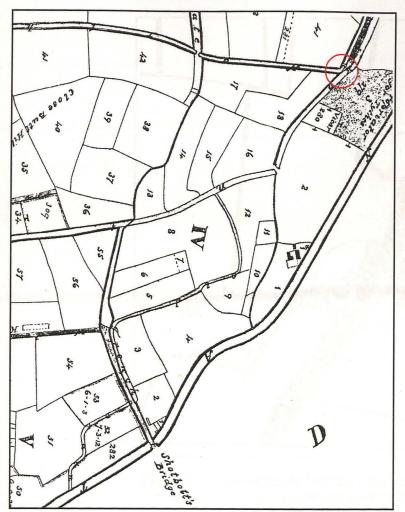


Figure 7 - Extract from Upton's 'Plan of the Old Inclosures of that part of the Parish of Pinchbeck in the County of Lincoln...', 1843

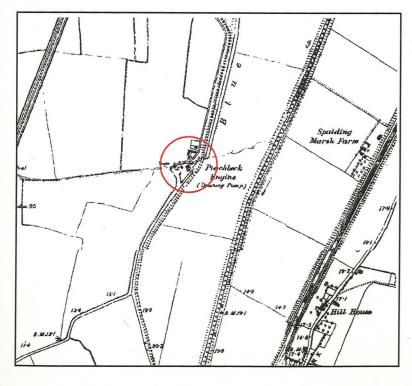


Figure 8 - Extract from the Ordnance Survey 1<sup>st</sup> edition 6" map, sheet CXXXIV N.W., 1890

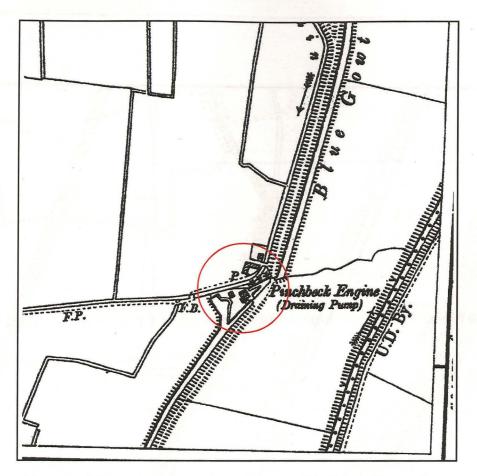
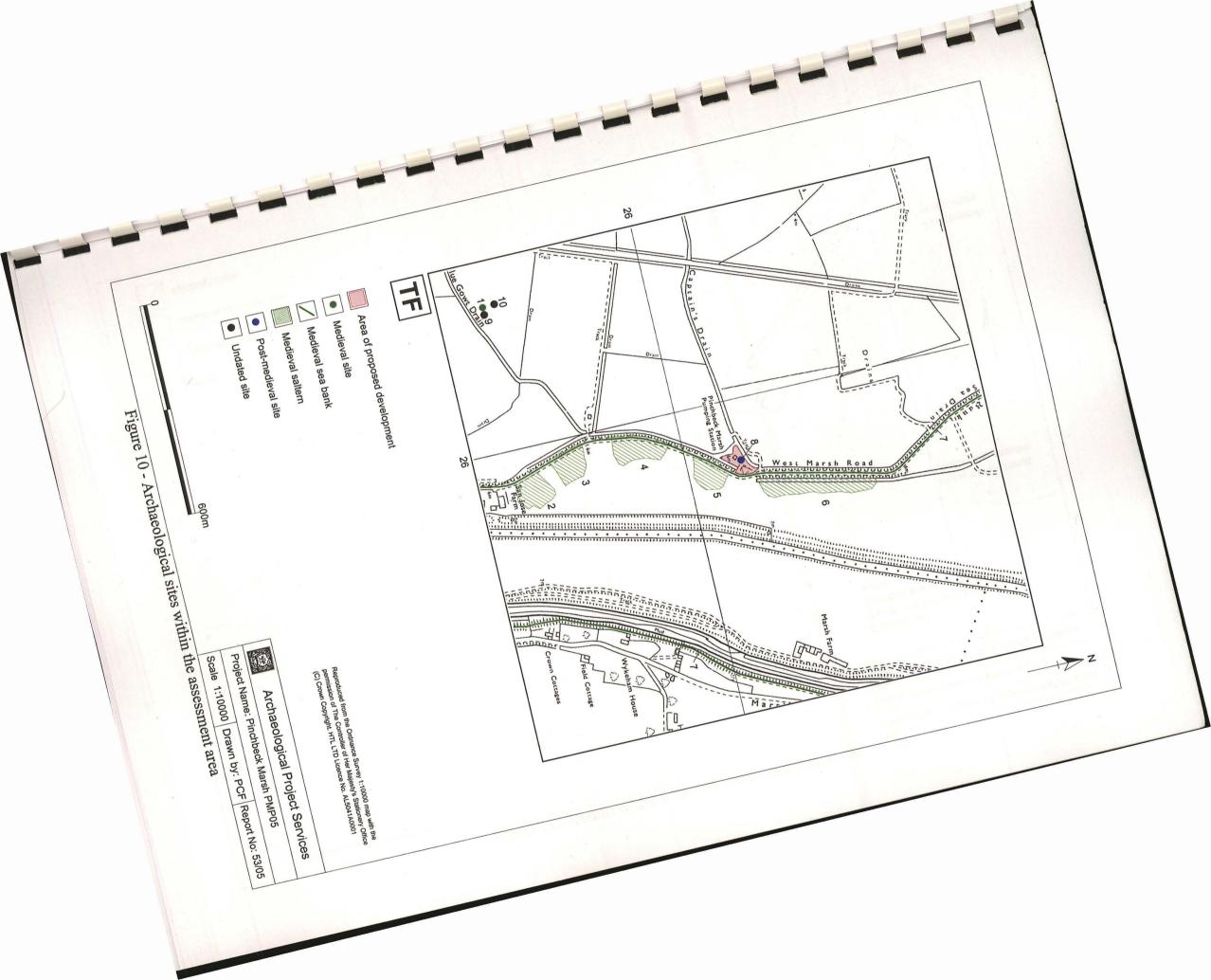


Figure 9 - Extract from the Ordnance Survey 2<sup>nd</sup> edition 6" map, sheet CXXXIV N.W., 1906



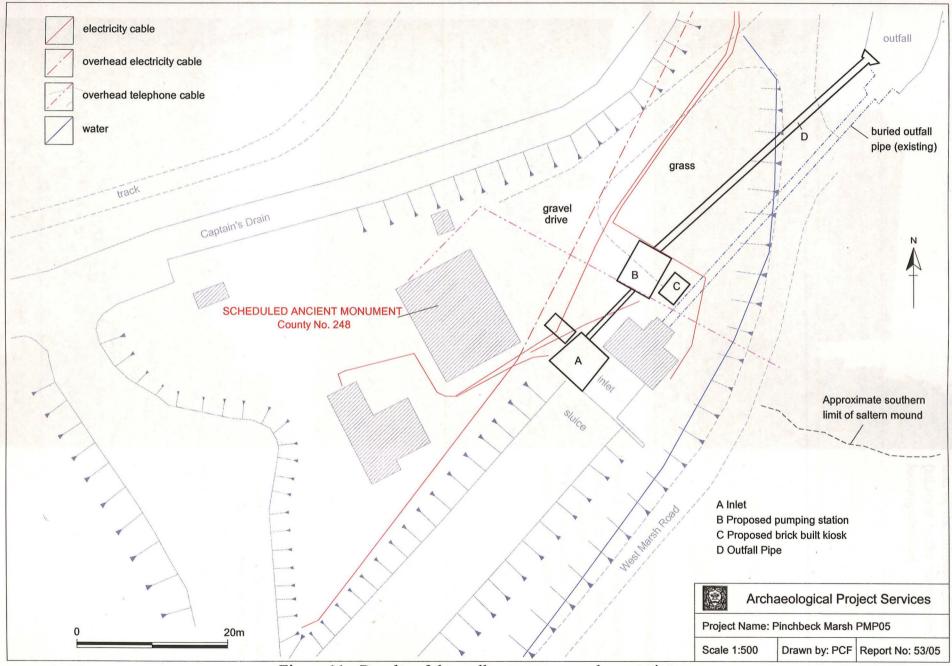


Figure 11 - Results of the walkover survey and constraints



Plate 1 - View showing the position of the proposed sluice/inlet (adjacent to the existing sluice), looking northeast



Plate 2 - The proposed site of the new pump house lies beneath the crane and red van. The original 1833 pump house lies in the background, looking southwest



Plate 3 - View showing the grassed area through which the proposed outlet pipe will pass. The medieval sea bank lies in the distance. Looking southeast



Plate 4 - The Blue Gowt Drain showing the proposed outfall. The medieval sea bank lies to the left and the slight rise in the field surface to the right indicates the position of a medieval saltern, looking north

### Appendix 1

SECRETARY OF STATE'S CRITERIA FOR SCHEDULING ANCIENT MONUMENTS - extract from *archaeology and planning* DoE planning policy guidance note 16, November 1990

The following criteria (which are not in any order of ranking), are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

i Period: all types of monuments that characterise a category or period should be considered for

preservation.

ii Rarity: there are some monument categories which in certain periods are so scarce that all surviving

examples which retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument,

both in a national and regional context.

iii Documentation: the significance of a monument may be enhanced by the existence of records of previous

investigation or, in the case of more recent monuments, by the supporting evidence of

contemporary written records.

iv Group value: the value of a single monument (such as a field system) may be greatly enhanced by its association

with related contemporary monuments (such as a settlement or cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.

v Survival/

Condition: the survival of a monument's archaeological potential both above and below ground is a

particularly important consideration and should be assessed in relation to its present condition and

surviving features.

vi Fragility/

Vulnerability: highly important archaeological evidence from some field monuments can be destroyed by a single

ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection that scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even

if these structures are already listed buildings.

vii Diversity: some monuments may be selected for scheduling because they possess a combination of high

quality features, others because of a single important attribute.

viii Potential: on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to

document reasons anticipating its existence and importance and so to demonstrate the justification

for scheduling. This is usually confined to sites rather than upstanding monuments.

### Appendix 2

### **GLOSSARY**

Alluvium A deposit (usually clay, silts or sands) laid down in water. Marine alluvium is deposited

by the sea and freshwater alluvium by streams, rivers or within lakes.

Geophysical Survey Essentially non-invasive methods of examining below the ground surface by measuring

deviations in the physical properties and characteristics of the earth. Techniques include

magnetometry and resistivity survey.

Medieval The Middle Ages, dating from approximately AD 1066-1500.

Post-medieval The period following the Middle Ages, dating from approximately AD 1500-1800.

Prehistoric The period of human history prior to the introduction of writing. In Britain the

prehistoric period lasts from the first evidence of human occupation about 500,000 BC,

until the Roman invasion in the middle of the 1st century AD.

Romano-British Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Saltern Salt producing site typified by ash, derived from fuel needed to evaporate sea water, and

briquetage.

Saxon Pertaining to the period dating from AD 410-1066 when England was largely settled by

tribes from northern Germany.

### Appendix 3

### LIST OF SOURCES CONSULTED

Lincolnshire County Sites and Monuments Record, parish of Pinchbeck

Heritage Trust of Lincolnshire parish files, parish of Pinchbeck

Lincolnshire Archives: Cartographic Sources, Secondary Sources (Books and Journals)

Plans and Maps for the parish of Pinchbeck, held at the Lincolnshire Archives

Lincoln Central Reference Library

Heritage Trust of Lincolnshire Library

Ordnance Survey Maps 1815, 1890, 1906, 1975

#### Sources Not Consulted

Cursory examination was made of primary historical documentation held at Lincolnshire Archives—experience has shown that the consultation of primary historical documents is extremely time-consuming, and only fortuitously affords information relevant to archaeological inquiries.