# Great fen, Engine Farm, Archaeological monitoring

## Archaeological Watching Brief Report

oxfordarchaeology east east east

May 2016

**Client: Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust**

OA East Report No: 1933

OASIS No: oxfordar3-251936

NGR: TL 2320 8974

Archaeological Watching Brief Report

# Great fen, Engine Farm, Archaeological monitoring

*Watching Brief*

*Site Code: HOMENF16*

*CHER No. ECB 4633*

*Planning Application number: 1400/1892/FUL*

*Date of Works: April 2016*

*Report No: 1933*

*Excavator: Anthony Haskins MSc BSc ACIfA*

*Client: Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust*

*Report Date: 18th May 2016*

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***Summary***

*Between January 29th and March 17th 2016, OA East carried out an archaeological watching brief at Engine Farm (TL 2320 8974). The monitoring was carried out as part of the Engine Farm Wetland Proposal, part of The Great Fen habitat recreation scheme.*

*The watching brief identified peat deposits and material associated with Whittlesey Mere that related to those seen in the Frog Life ponds excavated in 2015.*

*No archaeological deposits were identified during the groundworks.*

## 1.1 General Background

1.1.1 The project is part of the wetland recreation scheme run by the Great Fen Project for the Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust. This report relates to the excavation of a large pond within the area of Engine Farm as part of these works (Engine Farm Wetland Proposal).

## 1.2 Circumstances of the Project

1.2.1 The Site is located in the north-west corner of the Great Fen Area Designation, within Whittlesey Mere and east of Holme Fen.

1.2.2 The site lies in an area of known historical and geological significance.

1.2.3 The Brief (K. Gdaniec (18/9/15) was written by Cambridgeshire County Council Historic Environment Team, in response to a request by the client (The Beds, Cambs & Northants Wildlife Trust). Due to the potential for archaeological deposits on the site Cambridgeshire County Council Historic Environment Team have recommended that an archaeological investigation (monitoring and recording) takes place during groundworks.

1.2.4 This Written Scheme of Investigation (WSI) outlines the methods for a programme of preliminary archaeological monitoring and recording to characterise any archaeological deposits which may be impacted by the ground works and as a result of wetland creation across the site.

## 1.3 The Geology of the Site

1.3.1 The geology of the Holme Fen/Whittlesey Mere area exhibits a somewhat complex series of Holocene sediments overlying late-Glacial sediments and Jurassic bedrock. To the south-west near Holme village, Jurassic bedrock Oxford Clay forms higher ground at the fen-edge. Associated with the bedrock surface (rockhead) are thin sandy and gravelly deposits of presumed late-Glacial age. Near Holme Farm and Top Farm, although not mapped by the BGS, these sediments occur capping ridges and 'islands', but to the north and east they are buried beneath the Holocene fen sediments.

1.3.2 The earliest Holocene deposit from this area is usually thought to be the basal or 'Lower' peat, associated with frequent 'bog oaks', which is generally taken to represent deposition in a damp woodland environment during Mesolithic and Neolithic times. Overlying the 'Lower' peat in the north and east of the area is a unit of intertidal saltmarsh, mudflat and tidal creek deposits assigned to the 'Barroway Drove Beds' representing the mid-Bronze Age marine incursion into this part of fenland that is thought to have persisted until at least 3400 calendar years BP.

1.3.3 Overlying much of the 'Barroway Drove Beds' is an overgrowth of organic deposits usually referred to as the 'Nordelph' peat. These sediments are a mixture of freshwater reed-swamp (Phragmites) peats and acid raised-bog (Sphagnum) peats dating from the late Bronze Age and Iron Age. In several locations, including the former sites of Whittlesey Mere, Trundle Mere and Ugg Mere, lake sediments of various types (including 'shell marl') are present overlying the 'Nordelph' peat indication large areas of standing water from the late Iron Age onwards. In other locations there was no such inundation by extensive open water, and raised bog peat accumulation continued unabated until the mid-19th Century.

1.3.4 The drainage of Whittlesey Mere and surrounding areas in 1850 led to a rapid desiccation and shrinkage of the organic sediments, including their internal breakdown through microbial processes. Hutchinson's (1980) study of the peat 'wastage' around

Holme Fen post shows the initially rapid and then ongoing lowering of the local ground surface amounting to almost 4m in 130 years.

### 1.4 The Development

1.4.1 The scheme is for wetland creation covering c140 hectare of land lying to the east of Holme Fen Nature Reserve, largely within the old Whittlesey Mere. The work at this stage (Engine Farm Wetland Proposal) will include the excavation of a new pool to a depth of xm and the excavation of new drainage channels to a depth of ym at Engine Farm. These works will also include (and result in) the creation of wet grassland.

## 2 Archaeological Background

2.1.1 A desk-based assessment was undertaken in 2002 which outlined the known archaeological and historical background for the Great Fen project area (Rebecca Casa Hatton 2002 *The Great Fen Project: An Archaeological Desk-based Assessment* Cambridgeshire County Council Report No. 208) and thus will not be repeated in this document. A brief summary is given below.

2.1.2 The proposed development area has been peat fen since the later Bronze Age with the margins being slightly higher (and thus dryer) land prior to the peat development. The area has been subject to long term borehole survey principally, the published work undertaken by Godwin and Vishnu-Mittre's (1975), Hutchinson's (1980) and Martyn Waller's (1994) forming the basis of these records. More recent borehole surveys Boreham, S in Begg, Boreham & Macaulay (2008) have demonstrated that the low lying fen floor is at a depth where archaeology may survive (e.g. Must Farm, Whittlesey). These remains can be at a great depth and thus undetectable until deep excavation has been carried out. It is thus possible that Mesolithic, Neolithic and Bronze Age archaeology may be present within the development area, although such remains would not be detectable on the surface.

2.1.3 The later freshwater meres e.g. Whittlesey, Trundle, Ugg and Dray were important areas for later Prehistoric, Roman and particularly medieval activity, when these features become vital economic assets of the fen religious houses of Peterborough, Thorney, Ramsey, Sawtry and through estate ownership also Ely. Surface archaeology (notably medieval fishing wharves (e.g. ECB657) have been recorded on the edges of these features. It is therefore possible that archaeology of these later periods might be present and visible closer to the surface, however away from the lake edges and fen-edge, these remains are unlikely due to the wet conditions of the area.

2.1.4 Oxford Archaeology East have conducted two archaeological investigations during Phase 1 of the Rhymes Reedbed Restoration project. In January 2013 an archaeological evaluation was carried out in advance of the restoration project to locate the previous route of the Yaxley Lode (Jackslada), record test pits and conduct a borehole survey (Clove, K & Clarke, 2013 – Rhymes Reedbed, Holme, Hunts Wetland Creation Project, OA East report No. 1438). This investigation located the earlier medieval route of the Lode and provided additional data on the palaeoenvironmental record of the site. Following this, monitoring of the excavation of new ponds and channels was undertaken (Haskins, A. 2014 – Monitoring of the excavation of new ponds and channels at Rhymes Reedbed, Holme Fen. OA East Report No. 1590), no archaeological features were recorded.

2.1.5 Archaeological Monitoring has taken place most recently in 2015 at Kesters Docking, although no archaeological remains were encountered during groundworks monitoring (ditch digging, pond excavation etc.).

# 3 Methodology

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

3.1.2 The Brief required that archaeological monitoring of the pond was carried out during its excavation.

3.1.3 The area of investigation was located at Engine farm (TL 2320 8974; Fig. 1).

3.1.4 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales digital photographs were taken of all relevant features and deposits.

3.1.5 Site conditions were generally good, in dry bright weather. A total of 5 visits were made during the groundworks.

# 4 Results

## 4.1 Engine Farm Pond and New Drain

4.1.1 A similar sequence of archaeological deposits to those found in the frog life ponds, to the East, were found during the works. The pond was excavated to a depth of 1.2 – 1.5m.

4.1.2 The 0.3m deep topsoil lay on a thin degraded peat layer, 0.1m thick. This in turn sealed a 0.5 – 0.7m deep light greyish to creamish-white Marl deposit which was spread across the entirety of the excavation area. This Marl is most likely to have formed within Whittlesey Mere. Sealing earlier silt and floating moss deposits of mid to dark reddish brown clayey peat at least 0.2m thick. Again these deposits are likely to have formed within Whittlesey Mere. The underlying wood peat had no clear indication of any human activity and is much the same as previously seen in the area.

4.1.3 No metal finds were picked up during the metal detecting and no archaeological material was recovered. The majority of the new dykes did not penetrate through all the peat deposits and were only up to c.1m deep. Two backfilled drainage dykes were identified in the section but these probably relate to those backfilled around 1980 (Haskins 2014).

4.1.4 The new drain was excavated through similar deposits up to a maximum depth of 1.5m.

# 5 Acknowledgements

5.1.1 The author would like to thank Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust who commissioned and funded the archaeological work. The project was managed by Stephen Macaulay.

5.1.2 The works were monitored by Kasia Gdaniec of the Cambridge County Council Historic Environment Team. Site work was carried out by David Browne and Anthony Haskins. Graphics for this report were produced by Gillian Greer.

| Pond | | | | | | |
|---|---|---|---|---|---|---|
| **General description** | | | | | | |
| Excavation area devoid of archaeology. Topsoil and degraded peat sealing marls and underlying peat deposits. | | | | | **Avg. depth (m)** | 1.2 -1.5 |
| **Contexts** | | | | | | |
| **context no** | **type** | **Width (m)** | **Depth (m)** | **comment** | **finds** | **date** |
| - | Layer | - | 0.3 | Topsoil | - | - |
| - | Layer | - | 0.1 | Degraded peat | - | - |
| - | Layer | - | 0.5 – 0.7 | Marl | - | - |
| - | Layer | - | 0.2+ | Clayey Peat | - | - |

## BIBLIOGRAPHY


Begg, C., Boreham, S., and Macaulay, S. 2008 *The Great Fen Project: Archaeological Survey report – Northern Great Fen (Holme Fen and Whittlesey Mere) – Area Above B660.* CAM ARC Report No. 1007 Unpublished

Cassa Hatton, R 2002 *The Great Fen Project: An Archaeological Desk-based Assessment.* Cambridgeshire County Council Report No. 208, Unpublished

Clover, K. and Clarke, G. 2013 Rhymes *Reed Bed, Holme, Huntingsdonshire Wetland Creation Project (Great Fen Project): Archaeological Preliminary Evaluation report Oxford* Archaeology east Report No. 1438, Unpublished

Godwin, H. and Vishnu-Mittre, 1975 *Flandrian Deposits of the Fenland Margin at Holme Fen and Whittlesey Mere, Hunts.* Studies of the Post-Glacial History of British Vegetation: XVI.Phil. Trans. R. Soc. Lond. B, 561-604

Haskins, A. 2014, Monitoring of the excavation of ponds and channels at Rhymes Reed Beds, Holme Fen, as part of the Great Fen Project Oxford Archaeology East report No.1590

Hutchinson, JN 1980 The record of peat wastage in the East Anglian Fenlands at Hole Post, 1848-1978 AD. *Journal of Ecology* 68, 229-249.

Waller, M. 1994 *The Fenland Project, Number 9: Flandrian Environmental Change in Fenland* East Anglian Archaeology Reports No. 70

# APPENDIX A. OASIS REPORT FORM

All fields are required unless they are not applicable.

## *Project Details*

| | | | |
|---|---|---|---|
| OASIS Number | oxfordar3-251936 | | |
| Project Name | Great Fen, Engine Farm, Archaeological monitoring | | |
| Project Dates (fieldwork) Start | 18-01-2016 | Finish | 29-02-2016 |
| Previous Work (by OA East) | Yes | Future Work | Unknown |

### Project Reference Codes

| | | | |
|---|---|---|---|
| Site Code | HOMENF16 | Planning App. No. | 1400/1892/FUL |
| HER No. | ECB 4633 | Related HER/OASIS No. | |

### Type of Project/Techniques Used

Prompt: Planning condition

### *Please select all techniques used:*

| | | |
|---|---|---|
| ☒ Field Observation (periodic visits) | ☐ Part Excavation | ☐ Salvage Record |
| ☐ Full Excavation (100%) | ☐ Part Survey | ☐ Systematic Field Walking |
| ☐ Full Survey | ☐ Recorded Observation | ☐ Systematic Metal Detector Survey |
| ☐ Geophysical Survey | ☐ Remote Operated Vehicle Survey | ☐ Test Pit Survey |
| ☐ Open-Area Excavation | ☐ Salvage Excavation | ☐ Watching Brief |

### Monument Types/Significant Finds & Their Periods

List feature types using the NMR Monument Type Thesaurus and significant finds using the MDA Object type Thesaurus together with their respective periods. If no features/finds were found, please state "none".

| Monument | Period | Object | Period |
|---|---|---|---|
| None | Select period... | None | Select period... |
| | Select period... | | Select period... |
| | Select period... | | Select period... |

## *Project Location*

| | | | |
|---|---|---|---|
| County | Cambridgeshire | Site Address (including postcode if possible) | |
| District | Huntingdonshire | Engine Farm,Holme Wetland recreation scheme, Great Fen project, Huntingdonshire | |
| Parish | Holme | | |
| HER | Cambridgeshire | | |
| Study Area | 140 hectares | National Grid Reference | TL 2320 8974 |

## *Project Originators*

| | |
|---|---|
| Organisation | OA EAST |
| Project Brief Originator | K Gdaniec |
| Project Design Originator | S Macaulay |
| Project Manager | S Macaulay |
| Supervisor | A Haskins |

## *Project Archives*

| Physical Archive | Digital Archive | Paper Archive |
|---|---|---|
| N/A | OA East | CCC Stores |
| Accession ID ... | HOMENF16 | ECB4633 |

### Archive Contents/Media

| | Physical Contents | Digital Contents | Paper Contents |
|---|---|---|---|
| Animal Bones | ☐ | ☐ | ☐ |
| Ceramics | ☐ | ☐ | ☐ |
| Environmental | ☐ | ☐ | ☐ |
| Glass | ☐ | ☐ | ☐ |
| Human Bones | ☐ | ☐ | ☐ |
| Industrial | ☐ | ☐ | ☐ |
| Leather | ☐ | ☐ | ☐ |
| Metal | ☐ | ☐ | ☐ |
| Stratigraphic | | ☐ | ☐ |
| Survey | | ☐ | ☐ |
| Textiles | ☐ | ☐ | ☐ |
| Wood | ☐ | ☐ | ☐ |
| Worked Bone | ☐ | ☐ | ☐ |
| Worked Stone/Lithic | ☐ | ☐ | ☐ |
| None | ☐ | ☐ | ☐ |
| Other | ☐ | ☐ | ☐ |

| Digital Media | Paper Media |
|---|---|
| ☐ Database | ☐ Aerial Photos |
| ☐ GIS | ☐ Context Sheet |
| ☐ Geophysics | ☐ Correspondence |
| ☒ Images | ☒ Diary |
| ☒ Illustrations | ☐ Drawing |
| ☐ Moving Image | ☐ Manuscript |
| ☐ Spreadsheets | ☐ Map |
| ☐ Survey | ☐ Matrices |
| ☒ Text | ☐ Microfilm |
| ☐ Virtual Reality | ☐ Misc. |
| | ☐ Research/Notes |
| | ☐ Photos |
| | ☐ Plans |
| | ☒ Report |
| | ☐ Sections |
| | ☐ Survey |

**Notes:**

PE7 3PR

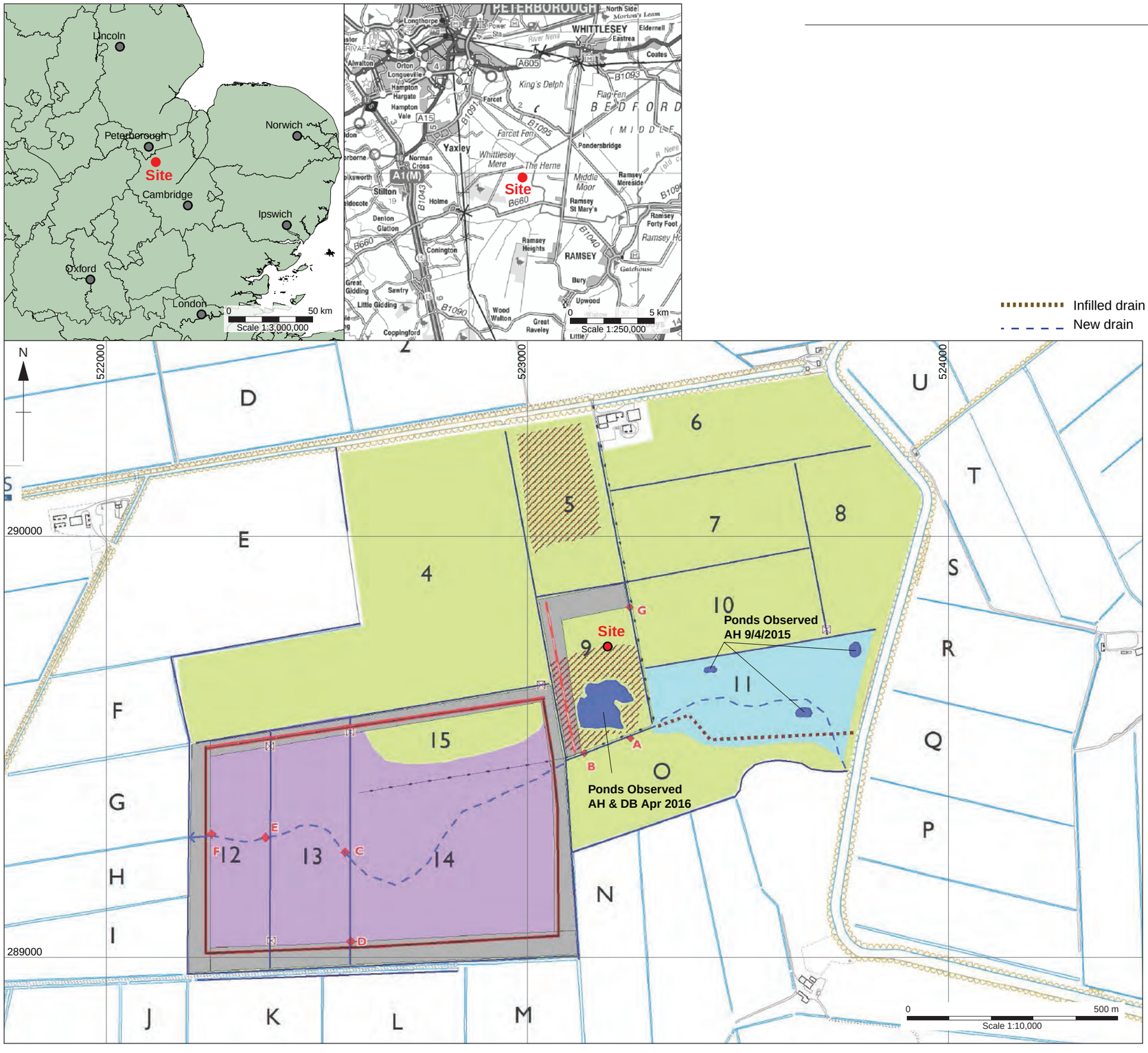


Figure 1: Site location

Plate 1: Excavation of pond, looking west

Plate 2: East facing section through pond deposits

Plate 3: West facing section through pond deposits

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