Thurne Dyke to Oby Dyke
Compartment 8
Broadland Flood Alleviation Project

Monitoring of Works under Archaeological Supervision and Control

ENF 124828

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August 2016

HW Report No. 194

Project name	**Thurne Dyke to Oby Dyke; Compartment 8**
Parish	**Thurne**
Event No.	**ENF 124828**
Grid Refs	**TG 4034 1513 to TG 4028 1582**
Date of Work	**July 2009 to November 2009**

Summary

Monitoring was undertaken during flood alleviation works at Oby. Possible clay extraction pits previously identified from aerial photographs were not visible in the excavations of a new lake and dyke. A few artefacts of late 19th- and early 20th-century date were found in the topsoil deposits.

Introduction

Planning permission was granted to Halcrow Group Ltd, for flood alleviation work along the left bank of the River Thurne between Thurne Dyke and Oby Dyke (Fig. 1). This development formed part of the Broadland Flood Alleviation Project, a major project which will renew and strengthen banks and dykes along the Bure, Ant, Thurne, Yare and Waveney rivers.

A condition of the permission required that an archaeological watching brief was carried out during the construction works.

This report covers monitoring works associated with planning application BA/2009/0106.

The Works

Works were undertaken along *c*.440m of the left bank of the Thurne (Fig. 1). At the north end of the works, parallel to Thurne Dyke a new ditch *c*.2m wide and 1m deep was excavated. Parallel to the River Thurne between Thurne Dyke and Thurne Mouth (the point where the River Thurne flows into the River Bure) the existing dyke was backfilled and a new dyke *c*.6m wide and 1.5m deep was excavated. In the south-western part of the site a new lake covering *c*.1.14 hectares and of varying depth (between 1 and 2m) was excavated. For recording purposes the area of the new lake was divided into two; Area A to the east and Area B to the west.

Geology

(http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

The bedrock geology of eastern Norfolk consists of Crag Group sand and gravel. This sedimentary material is made up of shallow water marine and estuarine sands, gravels, silts and clays deposited up to 5 million years ago. The superficial geology is Breydon Formation peat, silts and clays. This formation is dominated by unconsolidated silt and clay with a shelly marine fauna within the Thurne valley.

Archaeological Background

Prior to work commencing a desk top assessment of the area was undertaken (Halcrow Group Ltd 2009). This identified all known sites of archaeological interest which may have been affected by the flood defence works and a mitigation strategy was formulated to limit the impact of the works on these sites. Within the bounds of the Compartment a total of eight records were returned from a search of the Historic Environment Record two of which were directly impacted on by the works.

The sites affected by the works were areas of medieval or post-medieval clay extraction which had been identified from aerial photographs. One of these lay to the south of Thurne Dyke and the other occupied the south-west corner of the compartment adjacent to Thurn Mouth. A single sherd of post-medieval pottery had also been found within the marshes.

All the remaining sites lay on the slightly higher ground to the east of the main works and include ring ditches of possible Bronze Age date. Other identified features and finds are thought to relate to Boundary Farm which lay at the east end of Oby Dyke.

Aims of the work

The watching brief was intended to identify and record any previously unknown sites as well as record any known remains which were disturbed by the works. Advice was also given where necessary to reduce the impact of the works on any archaeological deposits.

Watching Brief Methods

Regular visits were made to the site throughout the course of the excavations on an approximately weekly basis, the timing varying depending on the speed of progress of the works. Where topsoil had been stripped a visual scan of the area was made in order to identify any archaeological deposits and retrieve any revealed artefacts. Similarly, the sides of the new soke dykes were visually assessed in order to identify and record any features which may have been revealed. Monitoring was undertaken from the top edge of the new dykes and edge of the new lake as safety concerns prevented access into the new

excavations. Disturbed soils were also visually checked for finds and metal detected where appropriate. Site staff were briefed on the possibility of revealing archaeological deposits and were encouraged to report any artefacts or unusual deposits which they encountered.

All work was carried out in full accordance with national and regional guidelines for the treatment of archaeological remains, and in particular the guidance set out in *Standards for Field Archaeology in the East of England* (Gurney 2003) and the Institute of Field Archaeologists *Standard and Guidance for an Archaeological Watching Brief* (2011).

Records of the watching brief consist of a site diary and digital photographs. Where archaeological sites were identified full recording was undertaken using single context recording, with plans and sections drawn at appropriate scales, and black & white photographic negatives.

Results of the Monitoring Works

The **lake** in the south west part of the site covered an area of *c.*1.14 hectares and measured *c.*200m in length with a width varying between *c.*45m at its east end and *c.*85 towards the west. The eastern part was excavated to a depth of *c.*2m deep while the west end was shallower being *c.*1m deep.

Below a thin topsoil the underlying silty clays were revealed (Plate 1). The deepest revealed deposit was grey-blue silty clay above which was a brown-orange silty clay. These deposits were fairly consistent across the area of the new lake. No distinct variation was noted in the area of possible extraction pit identified on aerial photographs, although the material was slightly softer at the west end of the lake.

Plate 1. Typical deposits within pond, looking north towards Thurne Mill.

One possible feature was noted crossing the central part the lake. This appeared to be a narrow slightly sinuous channel on a broadly north to south alignment. If the identification of this as a feature is correct its sinuous course indicates that is likely to have been a small stream flowing into the main river system.

Some pottery sherds were recovered from the topsoil areas of the lake and are reported on below. Occasional fragments of brick were also noted but not collected.

Similar deposits were noted in the excavations of the **dykes**. In some areas, at the north end of the site, the upper parts of the silty clays were full of reed (Plate 2). This appeared to be of relativity recent origin and suggests that up until recent times some parts of the site may have been naturally more low lying than others.

Plate 2. North arm of dyke, looking east, and showing reed content in upper silty/clay deposits.

Finds

By Sue Anderson

Pottery

Forty-one sherds of pottery (508g) were collected from the new lake Areas A (19 sherds) and B (11 sherds) and as unstratified finds (11 sherds). Table 1 shows the quantification by fabric.

Description	Fabric	No	Wt/g	eve	MNV
English Stoneware	ESW	1	111		1
Late slipped redware	LSRW	1	34		1
Porcelain	PORC	5	19	0.19	4
Refined white earthenwares	REFW	34	344	0.62	27
Totals		**41**	**508**	**0.81**	**33**

Table 1. Pottery quantification by fabric

Identifiable vessels comprise five plates, two saucers, two bowls, one cup, one mug, and three jars (including a marmalade jar with transfer-printed Keiller label). Decoration is generally in the form of transfer-printing, with willow pattern being the most common type. A few examples of spongeware, hand-painted, overglaze enamel, applied prunt and moulded decoration are also present. Most of this group is likely to be of 19th/20th-century date.

Clay pipe

One small fragment of stem (1g) was an unstratified find. The narrow diameter of the bore suggests a 19th-century date.

Discussion

Despite areas of possible clay extraction being identified from aerial photographs, these were not apparent in the excavations of the lake and dykes. It is probable that these features identified from aerial photographs were areas of naturally low lying ground which have naturally silted up. The presence of reed in the northern part of the site suggests that this area was probably slightly lower, and therefore wetter, into relatively recent times.

One possible sinuous channel was noted in the area of the lake. The interpretation of this a feature is rather tenuous, but if correct this is likely to have been a natural channel.

Artefacts recovered from the lake date to the late 19th and early 20th century and illustrate that the dumping of material was taking place at this time, possibly as manuring or as ‘land fill’ infilling low lying areas of the marsh.

Bibliography

Halcrow Group Ltd, 2008, Broadland Flood Alleviation Project Compartment 8. Environmental Statement

Acknowledgements

My thanks go to all those involved with the project at Halcrow and BamNuttall who were helpful and vigilant throughout the works. Thanks also to Sue Anderson identified and reported on the finds and to Sophie Tremlett at the National Mapping Programme for providing the plots taken from aerial photographs.

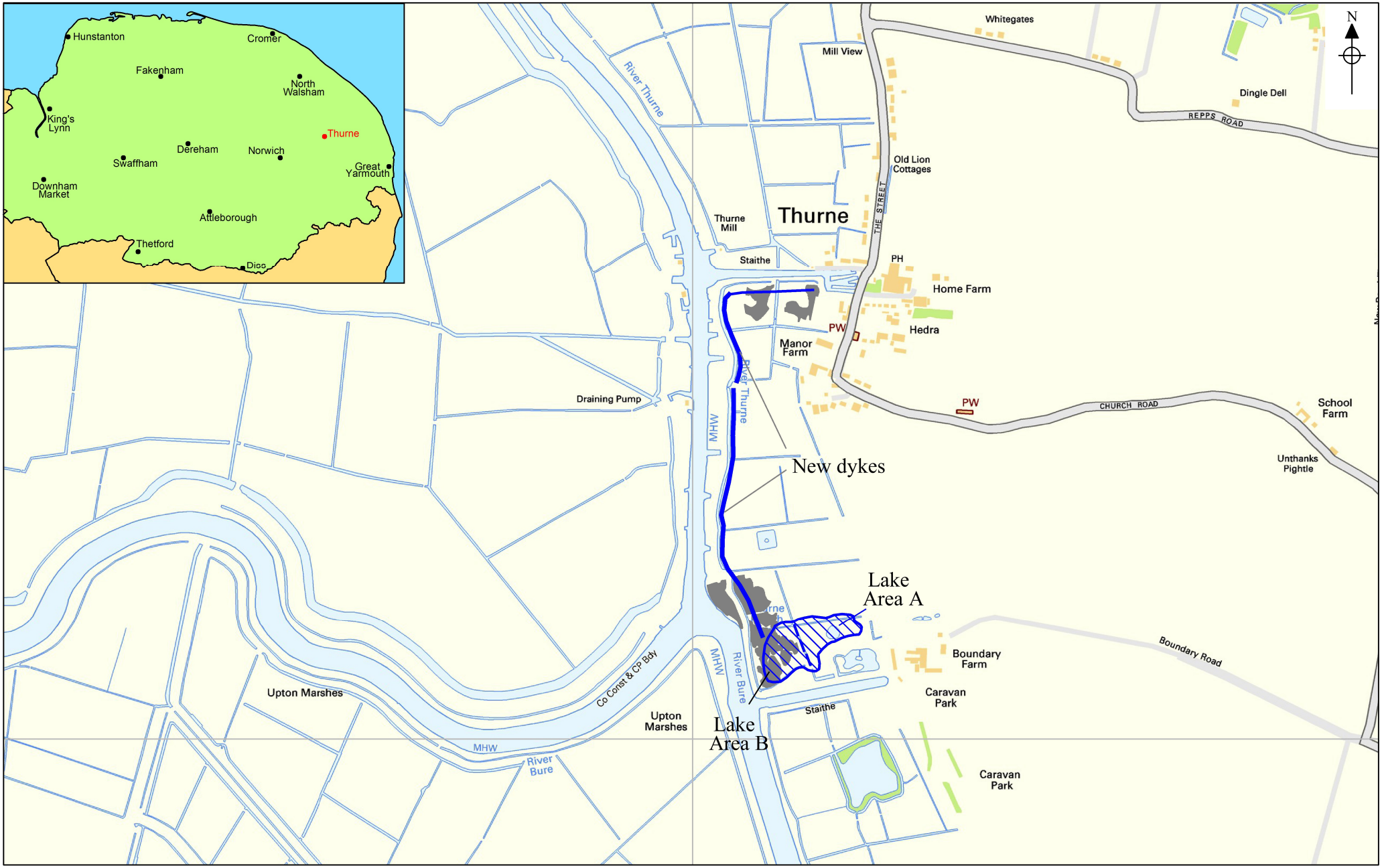

Figure 1. Site location plan showing new dyke and lake (blue) and areas of possible clay extraction as identified from aerial photographs (grey).

Appendix 1

Finds Catalogues

Pottery

Fabric	Rim
ESW = English stoneware	BD = beaded
LSRW = Late slipped redware	EV = everted
PORC = Porcelain	FLAR = flared
REFW = Refined white earthenware	PL = plain

Context	Fabric	Form	Rim	No	Wt/g	Spotdate
Lake Area A	REFW			3	11	L.18th-20th c.
Lake Area A	REFW			1	3	L.18th-20th c.
Lake Area A	REFW			1	14	L.18th-20th c.
Lake Area A	REFW			1	13	L.18th-20th c.
Lake Area A	REFW			2	5	L.18th-20th c.
Lake Area A	REFW			1	1	L.18th-20th c.
Lake Area A	REFW			1	4	L.18th-20th c.
Lake Area A	REFW	Plate	EV	1	8	L.18th-20th c.
Lake Area A	REFW	Plate	EV	1	3	L.18th-20th c.
Lake Area A	REFW	Jar	BD	1	9	L.18th-20th c.
Lake Area A	REFW	Plate?	EV	1	11	L.18th-20th c.
Lake Area A	PORC	Saucer	PL	1	4	18th-20th c.
Lake Area A	PORC	Saucer	PL	1	7	18th-20th c.
Lake Area A	REFW			2	15	L.18th-20th c.
Lake Area A	REFW			1	30	L.18th-20th c.
Lake Area B	REFW			2	10	L.18th-20th c.
Lake Area B	PORC			1	2	18th-20th c.
Lake Area B	ESW			1	111	17th-19th c.
Lake Area B	REFW	Jar?		1	21	L.18th-20th c.
Lake Area B	REFW	Jar	BD	1	22	post 1870
Lake Area B	REFW	Plate	EV	1	5	L.18th-20th c.
Lake Area B	REFW	Plate	EV	1	3	L.18th-20th c.
Lake Area B	REFW	Bowl?	EV	1	7	L.18th-20th c.
Lake Area B	REFW			1	6	L.18th-20th c.
Lake Area B	LSRW			1	34	18th-19th c.
U/S	PORC			2	6	18th-20th c.

Context	Fabric	Form	Rim	No	Wt/g	Spotdate
U/S	REFW			1	8	L.18th-20th c.
U/S	REFW			1	7	L.18th-20th c.
U/S	REFW			2	30	L.18th-20th c.
U/S	REFW	Cup		2	64	L.18th-20th c.
U/S	REFW	Bowl?	FLAR	1	4	L.18th-20th c.
U/S	REFW	Mug?		1	27	L.18th-20th c.
U/S	REFW			1	3	L.18th-20th c.

Clay Pipe

Context	No	Wt (g)	Notes	Date
U/S	1	1	stem	19th c.?

OASIS DATA COLLECTION FORM: England

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OASIS ID: heatherw1-92197

Project details

Project name	Oby to Thurne Watching Brief Compartment 8
Short description of the project	Monitoring was carried out during the excavation of a new lake and dykes excavated as part of flood alleviation works. Possible clay extraction pits identified on aerial photographs were not visible in the excavations, suggesting that there were in fact areas of low-lying, marshy ground. A few artefacts of late 19th- and early 20th-century date were found in the topsoil deposits.
Project dates	Start: 30-07-2009 End: 10-11-2009
Previous/future work	No / No
Any associated project reference codes	ENF 124828 - HER event no.
Type of project	Recording project
Monument type	NONE None
Significant Finds	POTTERY Post Medieval
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	NORFOLK GREAT YARMOUTH THURNE Oby to Thurne Watching Brief
Study area	1.2 Hectares
Site coordinates	TG 403 151 52.679664592852 1.555382654629 52 40 46 N 001 33 19 E Line
Site coordinates	TG 402 158 52.685990488482 1.554416758079 52 41 09 N 001 33 15 E Line

Project creators

Name of Organisation	Heather Wallis
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Heather Wallis
Project director/manager	Heather Wallis

Project archives

Physical Archive recipient	Norfolk Museums Service
Physical Contents	"Ceramics"
Digital Archive recipient	Norfolk Museums Service
Digital Contents	"Stratigraphic"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Norfolk Museums Service
Paper Contents	"Stratigraphic"
Paper Media available	"Notebook - Excavation',' Research',' General Notes","Report"

Project bibliography 1

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