

Tollesbury Wick Nature Reserve

Wyke Lane, Tollesbury

Essex

Archaeological Monitoring Report

ASE Project No: 8438

Site Code: TOWM15

ASE Report No: 2015421



November 2015

**Tollesbury Wick Nature Reserve
Wyke Lane, Tollesbury
Essex**

Archaeological Monitoring Report

NGR: TL 9758 1036

**ASE Project No: 8438
Site Code: TOWM15
Planning Ref: FUL/MAL/15/00287**

**ASE Report No: 2015421
OASIS id: 229745**

Prepared by:	Ellen Heppell	Senior Archaeologist	<i>L. Heppell</i>
Reviewed and approved by:	Mark Atkinson	Project Manager	<i>M. Atkinson</i>
Date of Issue:	November 2015		
Revision:			

**Archaeology South-East
27 Eastways
Witham
Essex CM8 3YQ**

**Tel: 01376 331470
Email: fau@ucl.ac.uk
Web: www.ucl.ac.uk/archaeologyse**

Abstract

Archaeology South-East undertook a programme of archaeological monitoring at the Essex Wildlife Trust's Nature Reserve at Tollesbury Wick, Tollesbury, Essex, during works to enhance the marshland habitat. These works involved the excavation of shallow creeks and pools), replacement or repair of existing sluices, the creation of a low soil bund to allow better management of rainfall and creation of a new lagoon to store winter rainfall; all within the northern part of the reserve.

No archaeological remains were identified. Evidence of the post-medieval and modern drainage, particularly in the form of ceramic and gravel filled underdrainage was present across the site. It is understood that the area of marsh within which the works were located was subject to levelling in the 1960s. It is noticeably different in character to the un-improved area of marsh in the south of the reserve where the former pools creeks and rills of the marsh are visible on the surface.

CONTENTS

- 1.0 Introduction**
- 2.0 Archaeological Background**
- 3.0 Archaeological Methodology**
- 4.0 Results**
- 5.0 Finds**
- 6.0 Discussion and Conclusions**

Bibliography
Acknowledgements

HER Summary
OASIS Form

TABLES

Table 1: Quantification of site archive

FIGURES

Front Cover: View across the site to Tollesbury (left) and the lightship

Figure 1: Site location

Figure 2: Site location overlaid on 1876 Ordnance Survey map

Figure 3: Habitat creation and lagoon plan

Figure 4: Selected site photographs

1.0 INTRODUCTION

1.1 Site Background

- 1.1.1 Archaeology South-East (ASE) was commissioned by the Essex Wildlife Trust (EWT) to undertake a programme of archaeological monitoring and recording during groundworks associated with the recreation of marsh features (creels and pools) on an area of agriculturally improved land at their reserve at Tollesbury Wick (Figure 1).
- 1.1.2 Tollesbury Wick Marshes comprise an extensive area of historic grazing marsh, lying to the east of Tollesbury Village itself. The marshes as a whole are recognised as being an outstanding example of historic grazing marsh. Previous archaeological survey of the reserve (Gascoyne and Medlycott 2014) has identified numerous historic landscape features and evidence for past human activity. Accordingly Essex County Council Place Services, in their role as Archaeological Advisors to Maldon District Council, recommended that an archaeological condition be placed on the planning application.

1.2 Geology and Topography

- 1.2.1 Tollesbury Wick Marshes Reserve is located to the east of Tollesbury Village and bounded to the south by the River Blackwater and the east and north by the South Channel and Woodrolfe Creek respectively. The area is low-lying marshland which had been 'inned' (embanked) by 1777. The area is crossed by the routes of a number of channels and counterwalls. The area of works lies in the northern part of the marsh.
- 1.2.2 The marshes are low lying at <2mOD and the underlying geology is mapped as Tidal Flat Deposits (Clay/Silt) of Holocene date. The marsh is effectively divided into units by a system of large sinuous creeks which once fed into the adjacent rivers. The marsh as a whole has two distinct areas, visible on the ground and air; that of the agriculturally improved (levelled) land, typically located in the northern part of the reserve, and the 'old marsh' in the south. The latter area has not been 'improved' and has a variable topography of sinuous creeks and pools which are no longer tidally influenced and hence are largely dry. The improved marsh has been levelled and under-drained thus, in contrast to the old marsh, there is little variation of surface heights across this area. The groundworks primarily took place in the levelled area of the reserve.
- 1.2.3 Various additional scrapes have been excavated in the northern part of the site (prior to 2000). A modern counterwall (Figure 1), orientated roughly north to south, crosses the reserve. This was constructed in the early part of this century, having been granted planning permission in 2003 (Planning Ref. MAL/03/00688/FUL). The existing creek pattern, which the new system is keyed into, is to be retained as part of the new scheme.

1.3 Planning Background

- 1.3.1 Planning application FUL/MAL/15/00287 was submitted by the Essex Wildlife Trust to Maldon District Council in March 2015 to *Re-create ancient marsh features on former agriculturally improved land. Replace/repair existing sluices and create a low soil bund to allow better management of water across the site and create a lagoon to store winter rainfall.*
- 1.3.2 As the site lies within the historic grazing marsh of Tollesbury Wick and is known to contain archaeologically sensitive remains, Essex County Council Place Services, in their role as Archaeological Advisors to Maldon District Council, recommended that an archaeological condition be placed on the planning application.
- 1.3.3 The planning authority duly placed an archaeological condition on the planning application. The condition is in line with the National Planning Policy Framework and states: The works are being undertaken in line with guidance contained in the National Planning Policy Framework (DCLG 2012) which requires that development proposals include an assessment of the significance of the historic environment and the mitigation of assets at risk either by preservation *in situ* or excavation (preservation by record).
- 1.3.4 The Planning Condition states that:

L1 Archaeological Assessment

No development including any site clearance or groundworks of any kind shall take place within the site until the applicant or their agents; the owner of the site or successors in title has submitted an archaeological assessment by an accredited archaeological consultant to establish the archaeological significance of the site. Such archaeological assessment shall be approved by the local planning authority and will inform the implementation of a programme of archaeological work. The development shall be carried out in a manner that accommodates such approved programme of archaeological work.

L2 Implementation of Archaeological Fieldwork Programme

No development including any site clearance or groundworks of any kind shall take place within the site until the applicant or their agents; the owner of the site or successors in title has secured the implementation of a programme of archaeological work from an accredited archaeological contractor in accordance with a written scheme of investigation which has been submitted to and approved in writing by the local planning authority. The development shall be carried out in a manner that accommodates the approved programme of archaeological work.

- 1.3.3 Following discussion with Maria Medlycott (Historic Environment Advisor, ECC Place Services) it was agreed that an initial assessment (**L1** above) would not be required in this instance. A Brief of Works (Medlycott 2015) was issued for the Archaeological Fieldwork Programme (**L2** above), setting out the requirements of the works. ASE produced a Written Scheme of Investigation in response to that document which was approved by ECC Place Services prior to the commencement of fieldwork.

1.4 Aims and Objectives

- 1.4.1 The general aim of the archaeological works was to determine the presence or absence of any archaeological remains impacted by the proposed works and establish the extent, date and character and significance of any such remains and ensure their preservation by record prior to damage or destruction.
- 1.4.2 Given the archaeological background to the site, discussed in Section 2.0, particular consideration was to be given to:
- The location of any surviving archaeological remains within the area of the proposed development and their relationship to the development and utilisation of the marsh
 - The recording of the stratigraphic sequence of deposits affected by the development.
- 1.4.3 All significant discoveries were to be investigated and assessed in relation to relevant regional research questions as identified in: *Research and Archaeology: A Framework for the Eastern Counties 2. Research agenda and strategy* (Brown and Glazebrook 2000) and *Research and Archaeology Revised: A Revised Framework for the East of England* (Medlycott 2011).

1.5 Scope of Report

- 1.5.1 This report details the results of the archaeological monitoring undertaken by Samara King and Ellen Heppell (both of ASE) in September/October 2015. The fieldwork was project managed by Andy Leonard and the post-excavation process by Mark Atkinson.

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 Tollesbury Wick Marshes are an area of significant historic grazing marsh which has been identified as being of high archaeological potential. The marshes were studied as part of the Essex Historic Grazing Marsh Project (Gascoyne and Medlycott 2014) and the following historical and archaeological background is summarised from that study and from observations made during the course of the monitoring.
- 2.2 Tollesbury Wick Marshes had been 'inned' (embanked) by the time of the Chapman and Andre map of 1777. The general layout incorporates several areas of marsh separated by large fleets (channels) and reclamation is likely to have been undertaken in several phases. The marsh as a whole is surrounded by a sea-wall and accompanying fleet ditch/borrow dyke which is crossed by a number of causeways to allow access. There is also a modern counterwall present within the marsh (Figure 1). The internal drainage pattern utilises former salt-marsh creeks, characterised by their sinuous nature although some have been straightened in more recent times. Comparison of historic (late 19th century) and modern mapping shows a minimal amount of boundary loss; in fact additional drainage ditches have been inserted (e.g. Figures 1 and 2).
- 2.3 Parts of the marsh, primarily to the north along Woodrolfe Creek have been agriculturally 'improved'; that is under-drained and levelled. This is understood to have occurred in the 1960s, in response to changes in agricultural policy and technology.
- 2.4 Earthworks survive in some areas of the marsh and the habitat creation works have been designed to avoid these. They comprise a sub-rectangular ditched enclosure which was probably for livestock and a concentration of mounds and ponds (Gascoyne and Medlycott 2014). The latter, located in the south-west of the reserve have the appearance of medieval salt-working sites. Elsewhere, other mounds may also be salt-working sites, in this case Iron Age and Roman 'red hills' (ibid). Modern remains include a pill box dating to World War II (ibid).
- 2.5 In the wider landscape of Essex coastal marshes, both inside and outside of the current sea defences, a rich archaeological resource has been recorded (e.g. Wilkinson and Murphy 1995). Remains include timber structures such as wattle pathways, fishtraps, bridges/causeways and relict sea defences. Areas of prehistoric landsurface have been recorded in the Blackwater Estuary, partially exposed in the intertidal zone but buried below the later alluvial deposits inland of the seawall.

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

- 3.1.1 The first stage of works comprised the removal of the topsoil in the area of the lagoon and the excavation of a 2m wide by 1m deep trench around the base of the lagoon bund (Figure 3). This trench was subsequently backfilled and a bund constructed on top of it utilising material excavated from the new creeks. Within the bund the ground level was not further reduced, indeed, in places it was raised to create islands.
- 3.1.2 The remaining creek channels (Figure 3) were excavated by mechanical excavator. Due to the nature of the underlying deposits (clays) and the well-drained nature of this part of Tollesbury Wick it was not possible to excavate the creeks using a toothless machine bucket as it could not break through the surface. Accordingly the creek excavation works were excavated using a toothed bucket, with the agreement of the Archaeological Monitoring Officer.
- 3.1.3 The new creeks were up to c.10m wide, and excavated to a maximum depth of c.0.9-1m at their centre line with shallow profiles, which enables them to be utilised by wading birds.
- 3.1.4 Monitoring was initially undertaken at regular intervals by a suitably qualified archaeologist. Initially, this was continual but, given the absence of archaeological remains and the fact that the creeks remained open, it was later decided to reduce the scale of the archaeological monitoring to 1-2 visits per week, with the agreement of the Archaeological Monitoring Officer. During these visits the sides of the newly excavated creeks were inspected for the incidence of archaeological remains.
- 3.1.5 Prior to the reduction in visits the groundwork contractors were given a brief 'toolbox talk' to illustrate what types of remains to look out for, for example 'red-hills', and advised to call in the ASE team and work in a different area whilst the areas was checked.
- 3.1.6 Watching brief record sheets were completed and additional written, drawn and photographic records made as appropriate.
- 3.1.7 No artefacts were retained for specialist analysis; indeed very few were present and comprised only occasional fragments of clearly post-medieval and modern brick and roof tile, along with ceramic field drains. These were not retained but a note of their presence made on the appropriate watching brief/context record sheet.
- 3.1.8 No suitable deposits for bulk soil sampling for environmental study were identified.

3.2 Site Archive

3.2.1 The site archive is currently held at ASE offices and will be deposited with Colchester Museum in due course. The contents of the archive are tabulated below (Table 1).

Number of Contexts	3
No. of files/paper record	1 file
Plan and sections sheets	0
Bulk Samples	0
Photographs	83 (Digital)
Bulk finds	0
Registered finds	0
Environmental flots/residue	0

Table 1: Quantification of site archive

4.0 RESULTS

4.1 Overview

4.1.1 The following section of the report describes the results of the archaeological monitoring during the excavation of the lagoon trench and the monitoring/inspection of the creeks. Selected photographs are presented in Figure 4.

4.2 Deposit Sequence

4.2.1 The natural deposit sequence was recorded in the lagoon trench, which was excavated to the greatest depth (Fig. 2). The following sequence was recorded:

Context [001]: Deposit. Turf overlying ploughsoil. Friable and dusty light brownish grey silty clay becoming blocky with depth. An average of 0.4m thick. Merging boundary with -

Context [002]: Deposit. Light greyish brown clean slightly silty clay. Hard and blocky, becoming firm and smooth with depth. An average of c.0.7m thick. Merging boundary with-

Context [003]: Deposit. Mid bluish grey clean clay. Firm and smooth. Extends below the level of excavation.

4.3 Archaeological Remains

4.3.1 No archaeological remains were identified during the monitoring works. The deposit sequence identified within the lagoon trench, described above, was consistent across the creeks excavated across the site as a whole (as observed in the sides and base of the creeks). Accordingly additional context numbers were not assigned for these natural deposits. In general contexts [001] and [002] were observed on the creek sides, with [003] being exposed in the very base of the channels.

4.3.2 Minor local variations were observed; there were occasional darker patches of material in Context [002], but in the main this resulted from a greater degree of water retention in the deposits and typically occurred in the vicinity of under-drainage pipes or channels.

4.3.3 The under-drainage, observed during the groundworks was of two main types; narrow gravel and pebble filled channels and ceramic drains. The latter comprise lengths of clay pipe with a corrugated outdoor appearance. These are the same type as those observed at Wallasea Island in south-east Essex, which was also subject to agricultural improvement in the 1960s (Heppell 2004).

5.0 DISCUSSION AND CONCLUSIONS

- 5.1 The archaeological monitoring at Tollesbury Wick identified no archaeological remains. Whilst it is acknowledged that the need to use a toothed excavator bucket was not ideal for archaeological purposes it is considered that legibility was sufficient to identify the major types of remains which characterise the archaeological resource around the Essex coastal marshes (that is timber structures and salt-working sites). Small and/or shallow features would not have been identifiable, but given the past land-use on the site, in particular the levelling, but also ploughing, such remains are already likely to have been damaged or destroyed.
- 5.2 The geological sequence recorded is consistent with that identified elsewhere on the Essex marshes and as mapped by the BGS. No old land surfaces, peats or mineralogenic peats were identified.
- 5.3 The deposit sequence can be interpreted as follows:
- Context [001]: Grazing on agricultural soils
 - Context [002]: Blocky clays – high/grazing marsh deposits which have been subject to drying and pedological processes. Becoming firm and smooth with depth – saltmarsh deposits
 - Context [003]: The bluish grey colour indicates predominantly anaerobic conditions
- 5.4 The creation of the new lagoon and creeks has not impacted on any previously unknown below-ground archaeological remains. The design of the scheme purposefully avoided known remains, principally earthworks and unimproved embanked grazing marsh, and so have not been impacted either. Accordingly the impact of the works on the heritage resource of this location has been negligible.

BIBLIOGRAPHY

- Brown, N. and Glazebrook, J. 2000, *Research and Archaeology: A Framework for the Eastern Counties 2. Research agenda and strategy*. E. Anglian. Archaeol. Occ. Pap. 8
- CIfA. 2014, *Code of Conduct(revised)*. Chartered Institute for Field Archaeologists
- CIfA. 2013, *Standard and Guidance for an archaeological watching brief (revised)*. Chartered Institute for Field Archaeologists
- DCLG. 2012, *National Planning Policy Framework*. HMSO
- Essex County Council. 2015, *Brief for Archaeological Monitoring at Tollesbury Wick Nature Reserve, Wycke Lane Tollesbury*
- Gascoyne, A. and Medlycott, M. 2014, *Essex Historic Grazing Marsh Project ECC*
- Gurney, D. 2003, *Standards for Field Archaeology in the East of England*. E. Anglian. Archaeol. Occ. Pap. 14
- Medlycott, M. 2011, *Research and Archaeology Revised: A Revised Framework for the East of England*, E. Anglian. Archaeol. Occ. Pap. 24
- Wilkinson, T. and Murphy, P. 1995, *The Archaeology of the Essex Coast Volume I; The Hullbridge Survey*, E. Anglian Archaeol. 41

ACKNOWLEDGEMENTS

ASE would like to thank Essex Wildlife Trust (David Smart) for commissioning the work and for their assistance throughout the project. Maria Medlycott, ECC Place Services provided monitoring on behalf of the local planning authority. Fieldwork was undertaken by Samara King and Ellen Heppell. Adrian Scruby project managed the fieldwork and Mark Atkinson the post-excavation process.

HER Summary

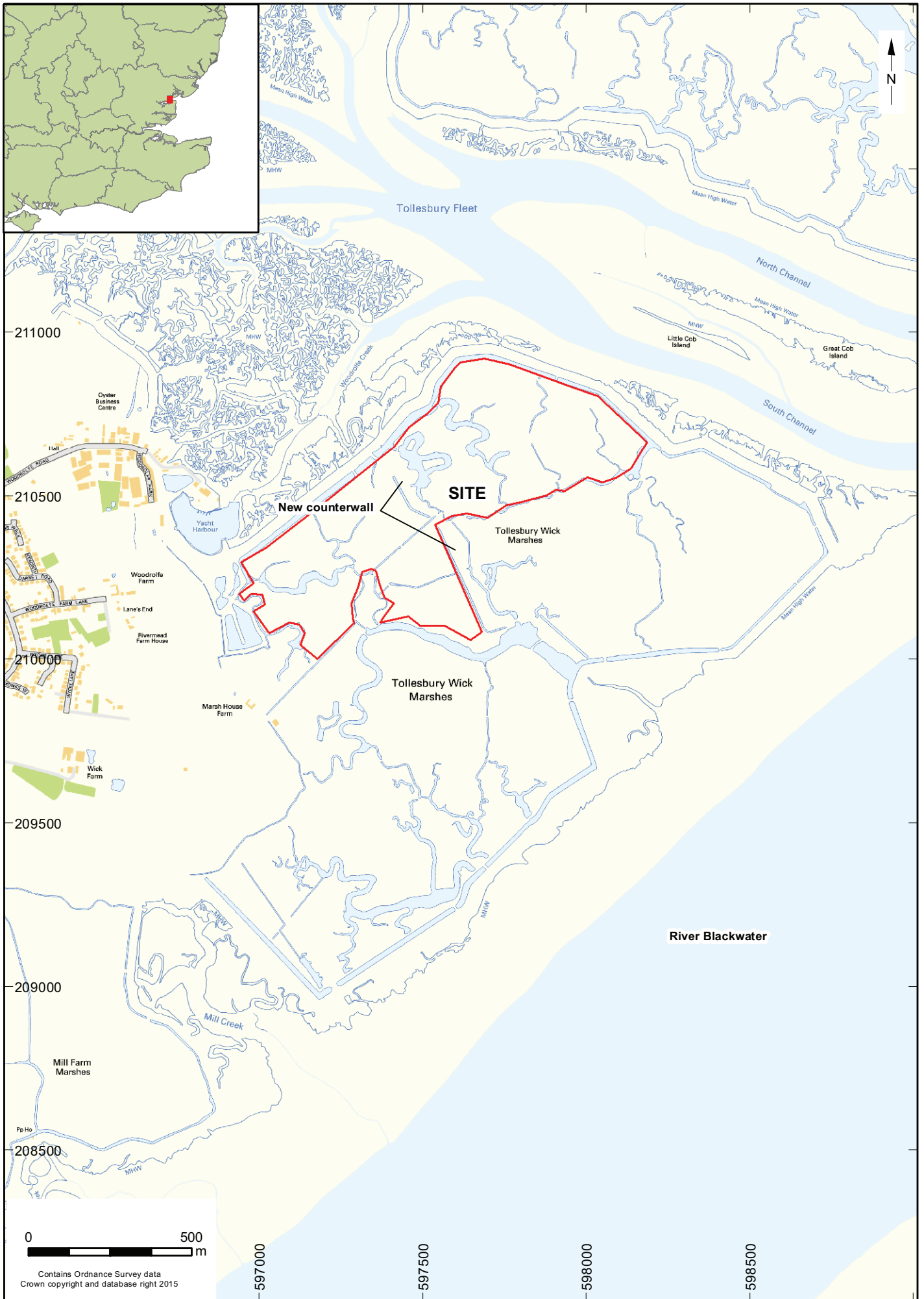
Site name/Address: Tollesbury Wick Nature Reserve, Wycke Lane, Tollesbury	
Parish: Tollesbury	District: Maldon
NGR: TL 9758 1036	Site Code: MDNI15
Type of Work: Monitoring	Site Director/Group: E. Heppell; Archaeology South-East
Date of Work: August-October 2014	Size of Area Investigated:
Location of Finds/Curating Museum: Colchester	Funding source: Essex Wildlife Trust
Further Seasons Anticipated?: No	Related HER No's: N/A
Final Report: EAH Roundup	OASIS No: 229745
Periods Represented: Undated	
SUMMARY OF FIELDWORK RESULTS:	
<p><i>Archaeological monitoring was undertaken at the Essex Wildlife Trust's Nature Reserve at Tollesbury Wick during works to enhance the marshland habitat. These works involved the excavation of shallow creeks and pools), replacement or repair of existing sluices, the creation of a low soil bund to allow better management of rainfall and creation of a new lagoon to store winter rainfall; all within the northern part of the reserve.</i></p> <p><i>No archaeological remains that pre-dated marsh improvement were identified. Post-medieval and modern drainage, particularly in the form of ceramic and gravel filled underdrainage, was present across the site. The marshland deposit sequence was recorded.</i></p> <p><i>It is understood that the area of marsh within which the works were located was subject to levelling in the 1960s. It is noticeably different in character to the un-improved area of marsh in the south of the reserve where the former pools creeks and rills of the marsh are visible on the surface.</i></p>	
Previous Summaries/Reports: None	
Author of Summary: E. Heppell	Date of Summary: 10/11/2015

OASIS Form

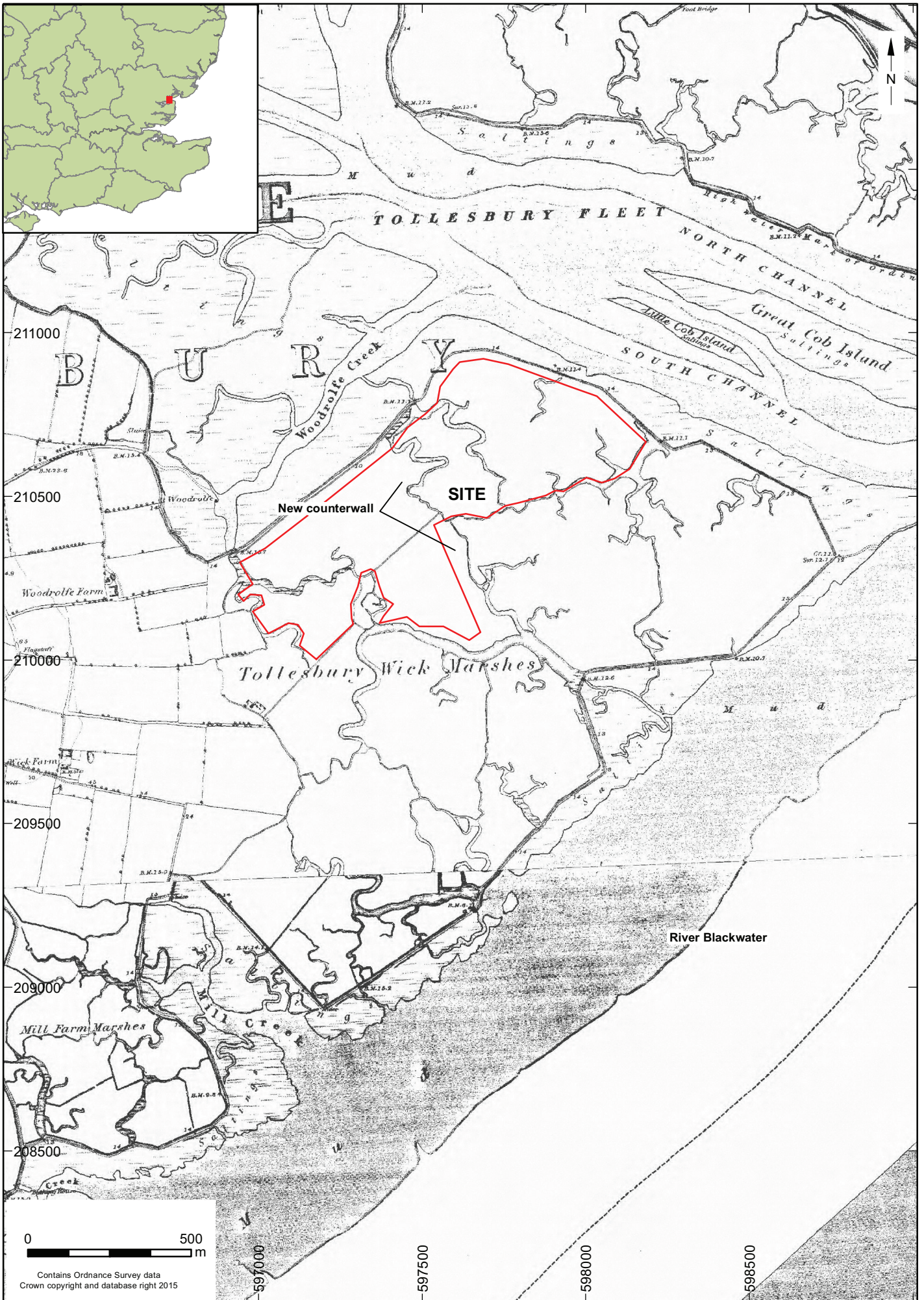
OASIS ID: archaeol6-229745	
Project details	
Project name	Tollesbury Wick Nature Reserve, Archaeological Monitoring
Short description of the project	Monitoring during habitat creation works at Tollesbury Wick identified no archaeological remains.
Project dates	Start: 28-08-2015 End: 30-11-2015
Previous/future work	No / Not known
Any associated project reference codes	TOWN15 - Sitecode
Any associated project reference codes	8438 - Contracting Unit No.
Type of project	Recording project
Current Land use	Coastland 6 - Other
Monument type	NONE None
Significant Finds	NONE None
Investigation type	""Watching Brief""
Prompt	Planning condition
Project location	
Country	England
Site location	ESSEX MALDON TOLLESBURY Tollesbury Wick Nature Reserve
Postcode	CM9 8SS

Study area	1 Kilometres
Site coordinates	TL 9758 1036 51.756487123866 0.863107937724 51 45 23 N 000 51 47 E Point
Height OD / Depth	Min: 0m Max: 2m
Project creators	
Name of Organisation	Archaeology South-East
Project brief originator	Essex County Council Place Services
Project design originator	ASE
Project director/manager	Andrew Leonard
Project supervisor	E Heppell
Type of sponsor/funding body	client
Name of sponsor/funding body	Essex Wildlife Trust
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	Colchester Museum
Digital Contents	"other"
Digital Media available	"Images raster / digital photography", "Text"
Paper Archive recipient	Colchester Museum

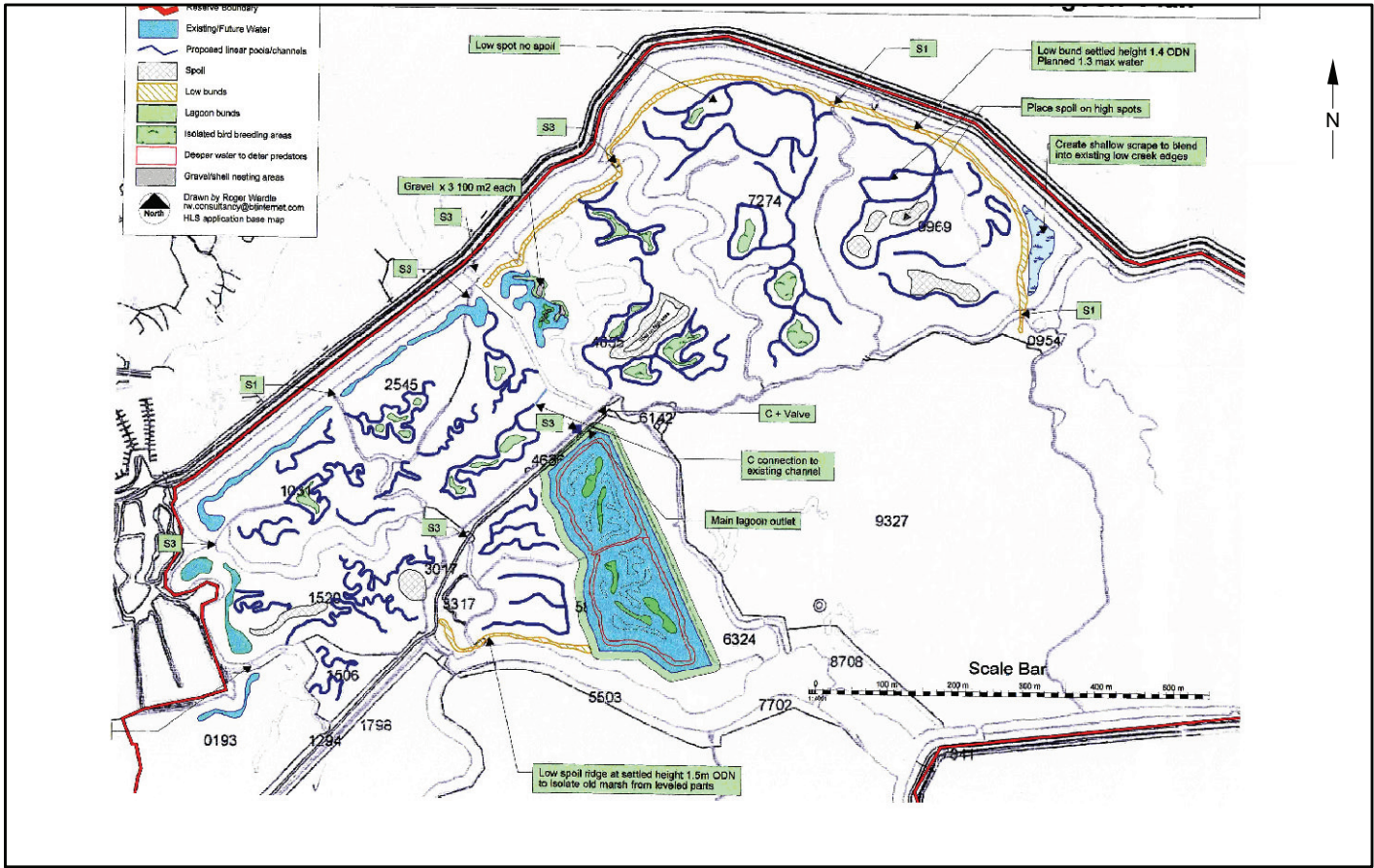
Paper Contents	"other"
Paper Media available	"Drawing", "Notebook - Excavation', ' Research', ' General Notes", "Report"
Project bibliography 1	
Publication type	Grey literature (unpublished document/manuscript)
Title	Tollesbury Wick Nature Reserve, Wyke Lan, Tollesbury. Archaeological Monitoring
Author(s)/Editor(s)	Heppell, E
Other bibliographic details	2015421
Date	2015
Issuer or publisher	ASE
Place of issue or publication	Essex
Description	A4 typescript report with accompanying illustrations
Entered by	Ellen Heppell (e.heppell@ucl.ac.uk)
Entered on	10 November 2015



© Archaeology South-East		Tollesbury Wick Nature Reserve		Fig. 1
Project Ref: 8438	Nov 2015	Site location		
Report No: 2015241	Drawn by: EH			



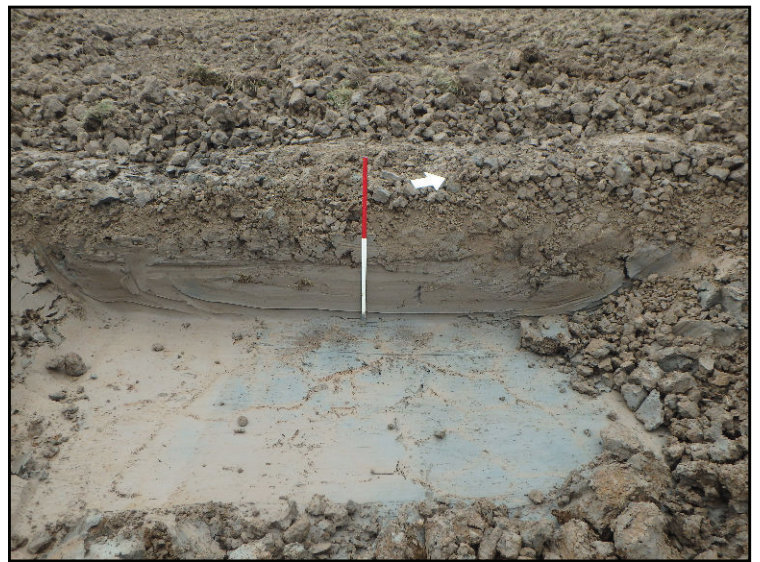
© Archaeology South-East		Tollesbury Wick Nature Reserve	Fig. 2
Project Ref: 8438	Nov 2015	Site location overlaid on 1876 Ordnance Survey map	
Report No: 2015241	Drawn by: EH		



© Archaeology South-East		Tollesbury Wick Nature Reserve	Fig. 3
Project Ref: 8438	Nov 2015	Habitat creation and lagoon plan	
Report No: 2015241	Drawn by: EH		



Example of excavated creek



Deposit sequence (1m scale)



Example of ceramic land-drain



View south across the reserve showing new creeks. The recently constructed counterwall is on the left. Bradwell Power Station can be seen in the distance.

© Archaeology South-East		Tollesbury Wick Nature Reserve	Fig. 4
Project Ref: 8438	Nov 2015	Selected site photographs	
Report No: 2015241	Drawn by: EH		

Sussex Office

Units 1& 2
2 Chapel Place
Portslade
East Sussex BN41 1DR
tel: +44(0)1273 426830
email: fau@ucl.ac.uk
web: www.archaeologyse.co.uk

Essex Office

27 Eastways
Witham
Essex
CM8 3YQ
tel: +44(0)1376 331470
email: fau@ucl.ac.uk
web: www.archaeologyse.co.uk

London Office

Centre for Applied Archaeology
UCL Institute of Archaeology
31-34 Gordon Square
London WC1H 0PY
tel: +44(0)20 7679 4778
email: fau@ucl.ac.uk
web: www.ucl.ac.uk/caa



