

# RSPB Rainham, Wennington and Aveley Marshes Reserve, Essex



## Archaeological Watching Brief Report



**Oxford Archaeology**

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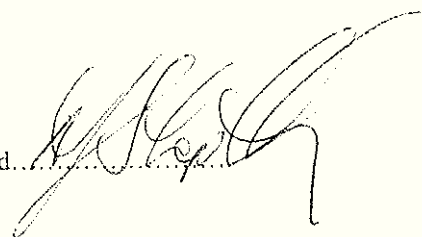
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## SUMMARY

*In September and October 2003 Oxford Archaeology (OA) carried out an archaeological watching brief within Wennington Marsh and the disused MOD rifle range at Aveley Marsh. The work was commissioned by The Royal Society for the Protection of Birds during the ongoing development of the marsh as a nature reserve. The work involved monitoring the excavation and desilting of existing drainage ditches. The deposits revealed consisted entirely of Late Holocene estuarine silty-clay alluvium. Excavations did not expose peat or organic deposits, and no significant archaeological remains were identified during this phase of the ditching works.*

## 1 INTRODUCTION

### 1.1 Location and scope of work

- 1.1.1 Oxford Archaeology (OA) was commissioned by The Royal Society for the Protection of Birds (RSPB) to undertake an archaeological watching brief at Wennington and Aveley marsh, during the ongoing development of the land as a nature reserve.
- 1.1.2 The investigation, carried out between September and October 2003, was the third season of excavations on the reserve. The results of the earlier phases of work, carried out between August 2001 and November 2002, have been detailed in previous reports (OA 2002 and 2003).
- 1.1.3 The reserve is located in the Borough of Havering in Greater London (the northern part of the site) and in Thurrock in the County of Essex (the southern third of the site). Figure 1 shows the location of the site. The site is bounded by the London, Southend and Tilbury Railway and the Channel Tunnel Rail Link (CTRL) to the north, a disused Army camp and firing range munitions magazines to the east, the River Thames to the South, and Wennington Marsh to the west. The site is accessed via Tankhill Road to the east.
- 1.1.4 The programme for the development of the nature reserve continued from previous seasons, with the excavation and desilting of existing drainage ditches within the marshlands (Figure 2).

### 1.2 Geology and topography

- 1.2.1 The site lies at approximately 1 m above OD. It is situated on a low-lying alluvial floodplain in a meander of the River Thames. Immediately to the north-east of the reserve lies the higher ground of the gravel terrace at 5 to 10 m OD.
- 1.2.2 Modern landuse is characterized by the disused rifle ranges, a total of three shooting structures, comprising butts and mantlets, and low intensity cattle grazing. The marsh is covered by rough grass, reed beds and shallow areas of open water. It is criss-crossed by a series of drainage ditches and low earthworks associated with medieval and later land reclamation.

1.2.3 The drift geology of the site consists of Holocene alluvial clay-silts and peat, overlying Pleistocene fluvial deposits at depth. The solid geology consists of Cretaceous Upper Chalk in the eastern part of the site, Palaeocene Thanet Beds and Woolwich/Reading Beds in the center, and London Clay to the west. (British Geological Survey sheets 257 and 271)

### 1.3 Archaeological and historical background

1.3.1 The archaeological background to the watching brief has been detailed in *Rainham, Wennington and Aveley Marshes, Desk-based Assessment*. (OAU 2001 Client Report) as well as the previous interim report (OA 2002) and will not therefore be repeated here.

## 2 PROJECT AIMS AND METHODOLOGY

### 2.1 Aims

2.1.1 To identify and record the presence or absence, extent, condition, quality and date of archaeological remains in the areas affected by the excavations.

2.1.2 To make available the results of the archaeological investigation.

### 2.2 Methodology

2.2.1 *Description of works:* The works included recutting and desilting approximately 3,500 m of existing ditches between Wennington Marsh and the disused Purfleet Rifle Ranges in the central area of the reserve. This involved clearing the vegetation and excavating the accumulated silt in the base of these ditches and reprofiling the bank on one side of the ditch to form a ledge for water vole habitation. The spoil then being used to form a 1.10 m deep, 2.1m wide bank on that side of the ditch. Excavation was carried out using a 20 ton tracked 360 degree excavator fitted with a 1 m wide toothed bucket. No de-watering was carried out during excavation. None of the excavations impinged on the existing medieval and post-medieval Wennington Creek earthworks.

2.2.2 *Monitoring:* All activities involving intrusive works (i.e. ditch recutting and excavations) were subject to a watching brief. The level of monitoring typically consisted of weekly site inspections, depending upon the topographic location, formation level, method of excavation and the resultant level of archaeological visibility. Inspections generally consisted of walkovers to examine excavations, their impact levels and profiles, as well as inspection of spoil heaps. All excavations immediately adjacent to the Wennington earthworks were closely monitored to ensure the profile and structure of the banks remained intact, and in the event that archaeological remains were exposed.

2.2.3 *Recording:* A detailed record has been kept of all activities associated with intrusive works and follow procedures detailed in the OA field manual (Ed. D Wilkinson 1992) and IFA guidelines.

- 2.2.4 A number of profiles showing the extent of excavation were drawn at scales of 1:20, and were photographed using colour slide and black and white print film. A general photographic record of the work was also made.

### 3 RESULTS

#### 3.1 Description of deposits

- 3.1.1 The deposits exposed during excavations were generally consistent with those previously observed on the site. The base of the deeper excavations cut approximately 0.9 m into the surface of a bluish grey silty clay alluvium with moderate Fe mineralization within root channels. Inspecting the ditches proved that the base of this alluvium was not penetrated. Overlying this clay with a gradual boundary change was 0.5 - 0.7 m of mid yellow brown silty clay alluvium. This deposit was tenacious although the upper 0.3 m showed signs of bioturbation by modern roots. Sealing these deposits was 0.3 - 0.5 m of a brown, tenacious, clay silt, representing the present topsoil and turf.

- 3.1.2 No peat or organic deposits were exposed during these excavations.

#### 3.2 Distribution of archaeological deposits

- 3.2.1 No archaeological deposits were observed during the period of the watching brief.

#### 3.3 Finds

- 3.3.1 A number of 20th century finds including pottery and building material were identified within the topsoil layer, these were evaluated on site but were not retained.

#### 3.4 Palaeo-environmental remains

- 3.4.1 No deposits suitable for paleo-environmental sampling were identified during the course of the desilting excavations.

### 4 DISCUSSION AND CONCLUSIONS

#### 4.1 Reliability

- 4.1.1 Monitoring took place on the basis of weekly visits to inspect the excavations. Continuous machine watching was not considered justified due to poor visibility. This was largely a result of the method of excavation i.e. the use of a mechanical excavator fitted with a toothed bucket, as well as consistently poor ground conditions due to high groundwater levels. No de-watering took place during excavation and the ditches generally flooded during or soon after excavation. Modern disturbance appeared to be minimal over much of the area. The modern marsh topsoil directly overlay *in situ* minerogenic alluvium.

- 4.1.2 The absence of identified archaeological remains or finds within the upper alluvial deposits is not unusual considering the nature of the estuarine depositional environment and the distance from the edge of the floodplain. Although at the outset

there was the potential for recovering evidence associated with the Wennington Creek earthworks, or evidence for other phases of medieval to post-mediaeval land reclamation, at no point did the works impinge on extant features. In addition, the peat deposits that generally underlie the silty clays in this area, known for producing evidence of prehistoric activity, artifacts and structures such as wooden trackways, were not exposed, most likely due to the shallow depth of the ditch excavations.

## 4.2 Summary of results

- 4.2.1 Approximately 3,250 m of ditch recutting were monitored during the watching brief. Deposits exposed consisted entirely of later Holocene minerogenic silt-clay estuarine alluvium. During this phase of work, no peat or organic deposits were exposed.
- 4.2.2 Although substantial ditch recutting took place adjacent to Wennington Creek earthwork, these existing features were not impinged upon or their topographical nature altered. No additional archaeological remains were identified during the excavations.

## APPENDICES

## APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

| <i>Context</i> | <i>Type</i> | <i>Depth</i>        | <i>Comments</i>   | <i> Finds</i>   |
|----------------|-------------|---------------------|---|---|
| 1              | Fill        | 0.4 m               | Modern silting, much partially decomposed organic inclusions, removed during desilting. | Modern plastic and driftwood.                               |
| 2              | Fill        | 1.0 m               | Earlier silting, black organic content, removed during desilting.                       | None.   |
| 3              | Layer       | Between 0.3 - 0.5 m | Modern topsoil and turf.  | 19th and 20th century pottery, fragments of brick and tile. |
| 4              | Layer       | 0.7 m               | Layer of alluvium.  | None.   |
| 5              | Layer       | >0.9 m              | Alluvial clay.  | None.   |

## APPENDIX 2 REFERENCES

OA (1992) *Fieldwork Manual* (ed. D Wilkinson)

OA (2001) Rainham, Wennington and Aveley Marshes. Desk-based Assessment. (Client report)

OA (2002) *RSPB Reserve, Aveley Marshes, Essex. Archaeological Watching Brief and Recordings Actions 2001-2002.* (Phase 1. Client report)

OA (2003) *RSPB Reserve, Aveley Marsh, Essex, Archaeological Watching Brief and Recording Actions 2002* (Client report)

## APPENDIX 4 SUMMARY OF SITE DETAILS

**Site name:** RSPB Rainham, Wennington and Aveley Marshes, Essex

**Site code:** RWAM 03

**Grid reference:** TQ 540970

**Type of watching brief:** Monitoring of excavation and desilting of drainage ditches.

**Date and duration of project:** Between September and October 2003.

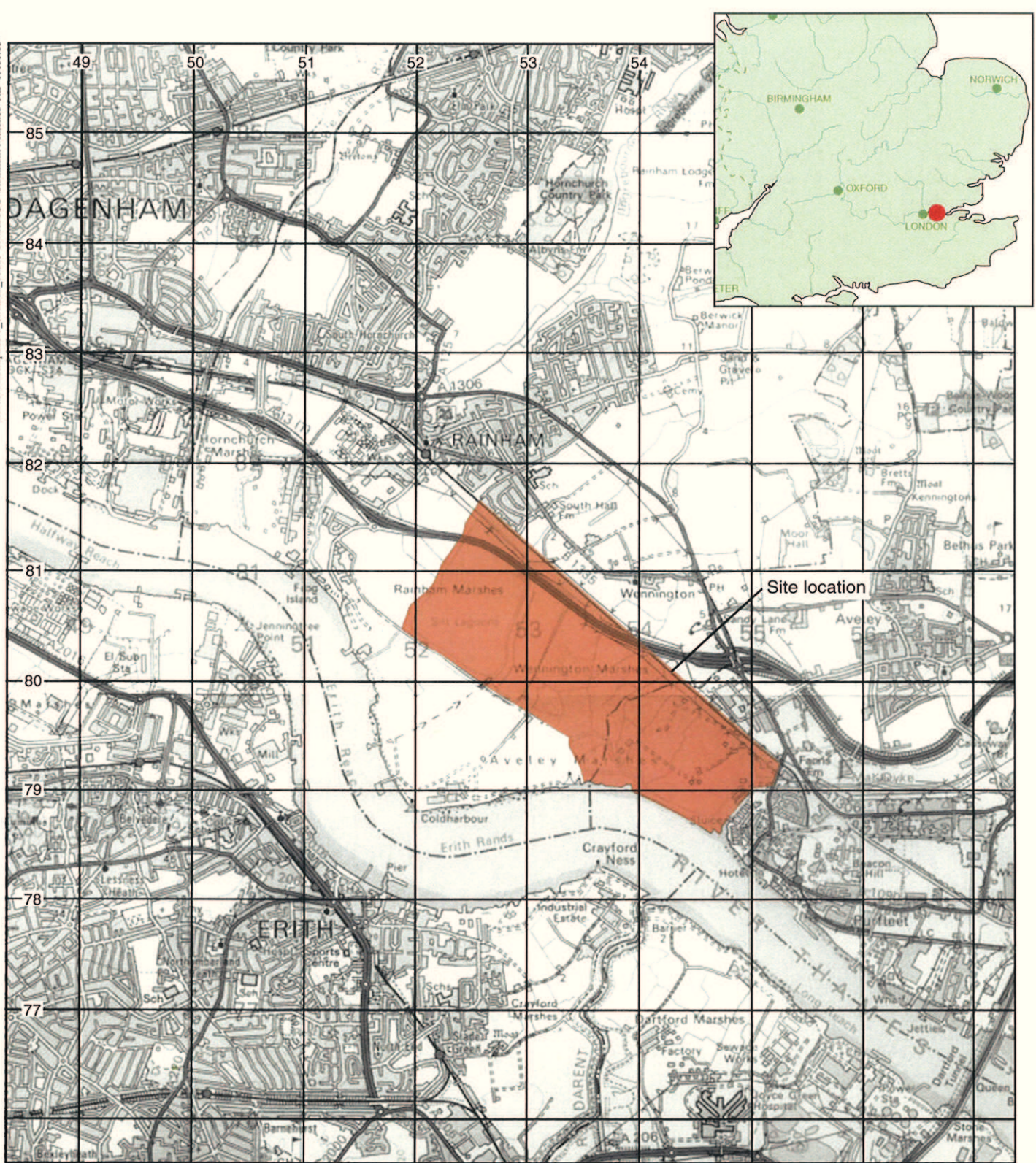
**Area of site:** Approximately 105 hectares.

**Summary of results:** Approximately 3,500 m of excavation and desilting of drainage ditches was monitored. Late Holocene estuarine alluvium was exposed, but no peat or organic deposits. No archaeological remains or features were identified.

**Location of archive:** The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES



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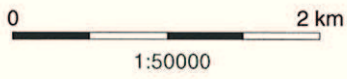


Figure 1: Site location

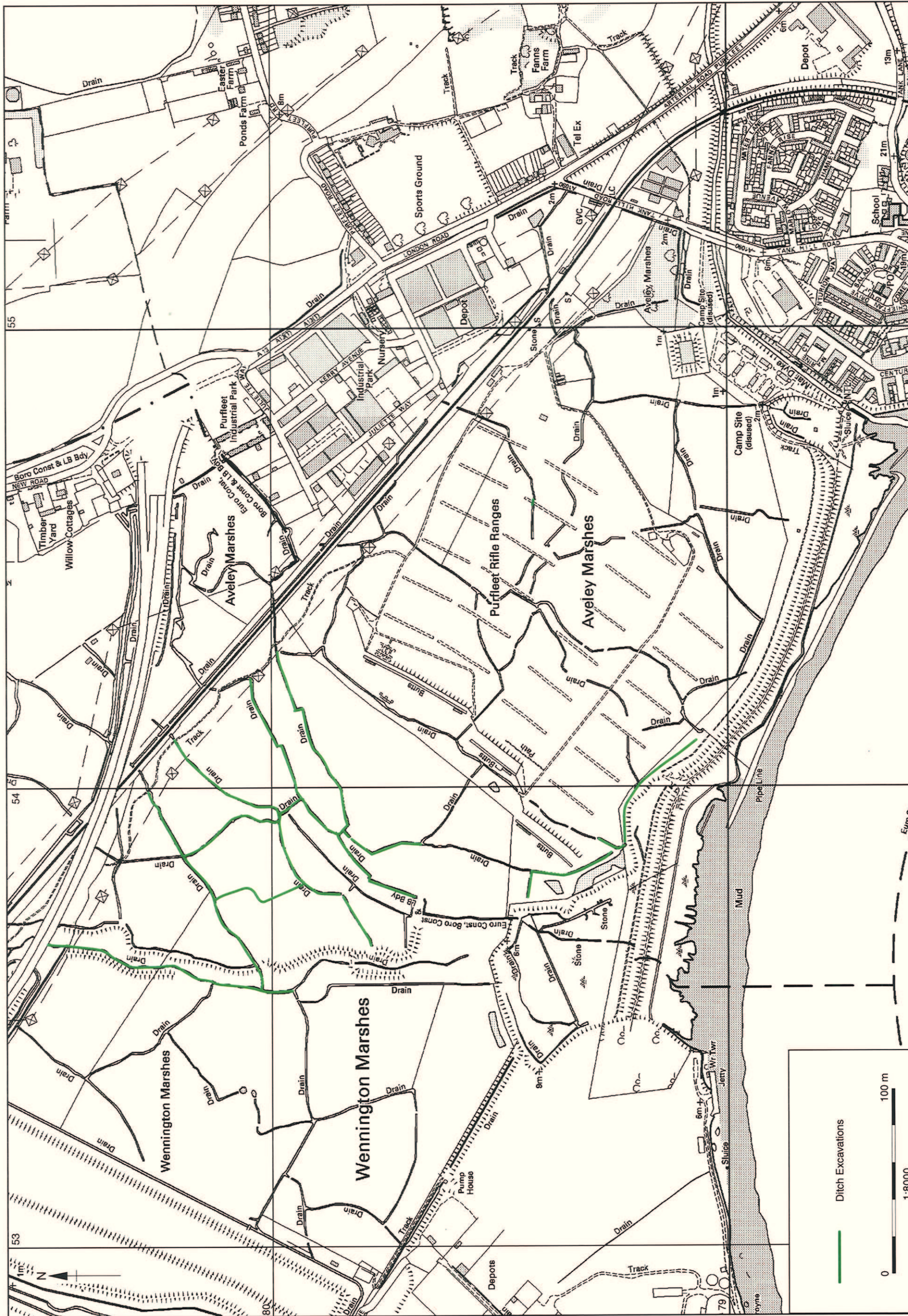


Figure 2: Site plan showing extent of ditch monitoring

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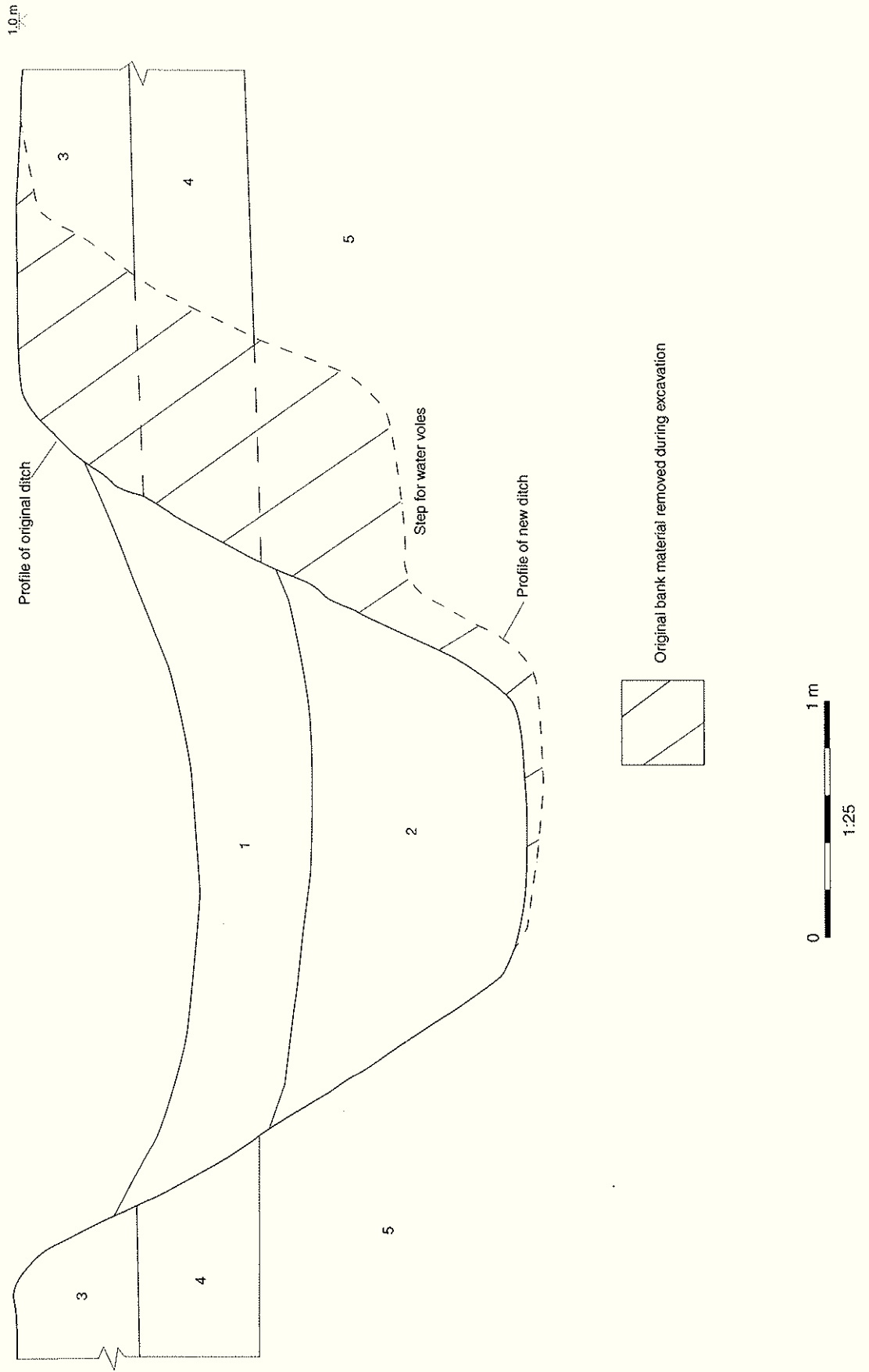


Figure 3: Sample section of typical ditch excavation



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