



# **EDDERSIDE WASTEWATER TREATMENT WORKS, EDDERSIDE, CUMBRIA**

## **Archaeological Watching Brief**

**Oxford Archaeology North**



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## SUMMARY

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Following a request by United Utilities, Oxford Archaeology North (OA North) undertook a watching brief on specified groundworks during the construction of a wastewater transfer pipeline at Edderside, Cumbria (NY 099 455). The work was undertaken on 9<sup>th</sup> May, and 14th to 15th July 2005.

Several lengths of topsoil stripping and pipe-trench were to be monitored by an archaeological presence. In the event, owing to communication failures, only two sections of trench were monitored and one area of topsoil stripping. No archaeology was found during the watching brief and there were no recommendations made for further archaeological intervention or work.

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## ACKNOWLEDGEMENTS

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Thanks are due to United Utilities for commissioning the work and to Mike Pitchford and colleagues of HMB Alliance for their assistance during the works. OA North would also like to thank Jo Mackintosh of Cumbria County Record Office for her assistance.

The watching brief was undertaken by Kathryn Blythe and David Tonks, who also wrote the report. The drawings were produced by Mark Tidmarsh and the finds were examined by Ian Miller. The project was managed by Alison Plummer, who also edited the report along with Alan Lupton.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Following the submission of a planning application by United Utilities for the proposed construction of a new wastewater transfer pipeline at Edderside, Cumbria (centred on NY 099 455), United Utilities were advised that the proposed works affected an area of archaeological significance. Accordingly, a watching brief was requested by Cumbria County Council Archaeological Services (CCCAS) during specified groundworks associated with the project. Oxford Archaeology North (OA North) was asked to submit a project design (*Appendix 1*) and was duly commissioned to undertake the work which took place on 14th and 15th July 2005. This document sets out the results of the watching brief in the form of a short report.

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## 2. METHODOLOGY

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### 2.1 PROJECT DESIGN

- 2.1.1 A project design (*Appendix 1*) was submitted by OA North in accordance with a brief prepared by CCCAS. Following acceptance of the project design OA North was commissioned by United Utilities to undertake the work.

### 2.2 WATCHING BRIEF

- 2.2.1 The groundworks were effected by mechanical excavator equipped with a toothed bucket. The purpose of the programme of fieldwork was to record the location, extent, and character of any surviving archaeological features observed during the topsoil strip and excavation of the pipeline trench. A photographic record in colour slide and monochrome formats was also compiled.

### 2.3 ARCHIVE

- 2.3.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Cumbria Record Office, Whitehaven.

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## 3. BACKGROUND

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### 3.1 TOPOGRAPHY AND GEOLOGY

3.1.1 Edderside is located on the west coast of Cumbria overlooking the Solway Firth and lies within the Solway Basin character area as defined by the Countryside Commission (Countryside Commission 1998). The area is characterised by flat to gently undulating lowland plain with limited woodland cover and large fields enclosed by wind-sheared hedgerows and stone-faced banks (*ibid*). The Solway Basin is underlain mainly by mudstones and solid geology sandstones of Permo-Triassic age ('New Red Sandstone') (*ibid*). A few coals of Carboniferous age lie beneath these rocks and crop out in a restricted belt along the southern margins of the area (*ibid*). The drift geology comprises typical brown earths of the Wick 1 association (Ordnance Survey 1983).

### 3.2 ARCHAEOLOGICAL BACKGROUND

3.2.1 The site lies between two Scheduled Monuments (SMs 186 and 182) and generally in an area of great archaeological potential, particularly with regard to the prehistoric and Roman eras. It is close to the Abbytown Ridge which is one of the best areas within Cumbria for archaeological visibility through aerial photographs, and in general the soils of the Solway Plain are noted for their potential for producing cropmarks (Bewley 1994). Such aerial reconnaissance has revealed numerous sites of archaeological potential, although most remain undated and have not been tested by excavation (Hodgkinson *et al* 2000). The Sites and Monuments Record (SMR) for Cumbria, records that SM 186 is of either prehistoric and/or Roman date whilst the other site (SM182) is an as yet undated enclosure.

3.2.2 Other SM's within the general vicinity include a Roman enclosure (SM12), another undated enclosure (SM 185), an undated field system (SMR 3188) and two undated settlements (SMRs 3190 and 3194). Finds from the prehistoric period are relatively plentiful and include the Salta Moss rapier (Hodgkinson *et al* 2000 ; SMR 4521) dating to the Bronze-age and found near Edderside itself, plus numerous Neolithic and Bronze Age stray finds, including at least seven stone axes found around Mawbray just to the north-west of the proposed site. The further potential of the area for prehistoric material is also shown by Bewley's work at Plasketlands (1994; SMR 607). In addition, a recent (2004) excavation at New Cowper Farm, c1.8miles to the east of the proposed development site, comprised a probable settlement or farmstead with associated enclosures and field systems. A large number of artefacts were recovered, and the finds included a cairn containing two beakers of probable late-Neolithic to early Bronze Age date.

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## 4. RESULTS

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### 4.1 OBSERVATIONS

- 4.1.1 **Introduction:** in the event, only one area of topsoil stripping was examined for features and only two sections of the proposed trench were excavated in the presence of an archaeological monitor (Figure 2). The remaining trenches were unobserved and, therefore, there are no results recorded for those trenches.
- 4.1.2 **Topsoil Strip:** an area to the east of the pond (Figure 2) had been topsoil stripped some time prior to the arrival of an archaeological monitor. The strip had involved the removal of up to 3.5m of topsoil (Plate 1) and it is understood that most of this material was dumped over a period of time by the present farmer to make-up the ground (Mike Pitchford, *pers com*). The presence of modern detritus in the topsoil supports this premise (Plate 2).
- 4.1.3 The area was examined for features, but the tracking of machinery across the ground made archaeological visibility poor. In some areas, natural ground was observed (Plate 2) which comprised mid-pinkish orange slightly clayey-sand with frequent inclusions of gravel. No archaeological features were observed, but two sherds of post-medieval pot were recovered from unstratified deposits (Section 4.2).
- 4.1.4 **Trench 1:** the observed stretch of Trench 1 was a narrow section which was being shored immediately on being excavated and no archaeological horizons were visible.
- 4.1.5 **Trench 2:** the observed section of Trench 2 measured approximately 15m x 20m x 2m (Plate 3). The concrete surface of the pathway was removed to reveal a single substratum in section (Plate 4) comprising orangey-brown gravelly-clay natural to a depth of around 2.0m. This substratum, sealed by the pathway, was the sole layer observed in section along the length of the trench and there were no archaeological horizons encountered nor finds made.

### 4.2 FINDS

- 4.2.1 There were two small sherds of pottery recovered from unstratified deposits in the area of the topsoil strip. Both were sherds of nineteenth century tableware which are of no archaeological significance.

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## 5. CONCLUSIONS

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### 5.1 DISCUSSION

- 5.1.1 The limited nature of the watching brief largely precluded the possibility of identifying archaeological remains during the proposed works. The natural observed in the area of topsoil strip had largely been disturbed by the action of vehicles and the nature of the excavations themselves made archaeological inspection difficult. However, the material that was excavated from Trench 2, apart from the concrete path surface, was noted to be entirely natural ground comprising clay and gravels. It is reasonable to infer from this that, at least for the remaining length of the pathway, material of a similar nature would have been encountered. Whilst it is also likely that this geology would be found beneath the field to the north of the track (Fig 2), no archaeological conclusions can be drawn from the works that were undertaken.

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## 6. BIBLIOGRAPHY

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### PRIMARY SOURCES

Ordnance Survey 1983, Soil Survey of England and Wales

### SECONDARY SOURCES

Bewley, RH, 1994 *Prehistoric and Romano-British Settlement in the Solway Plain Cumbria*, Oxbow Monograph **36**, Oxford

Countryside Commission, 1998 *Countryside Character, Volume 2: North West*, Cheltenham

English Heritage, 1991 *Management of Archaeological Projects*, 2<sup>nd</sup> edn, London

Hodgkinson, D, Huckerby, E, Middleton, R and Wells, C, 2000 *The Lowland Wetlands of Cumbria*, North West Wetlands Survey **6**, Lancaster

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Plate 2: Sample north-facing section showing made-ground over natural sands

Plate 3: Plan shot of Trench 1, facing south-east

Plate 4: South-facing section, Trench 1

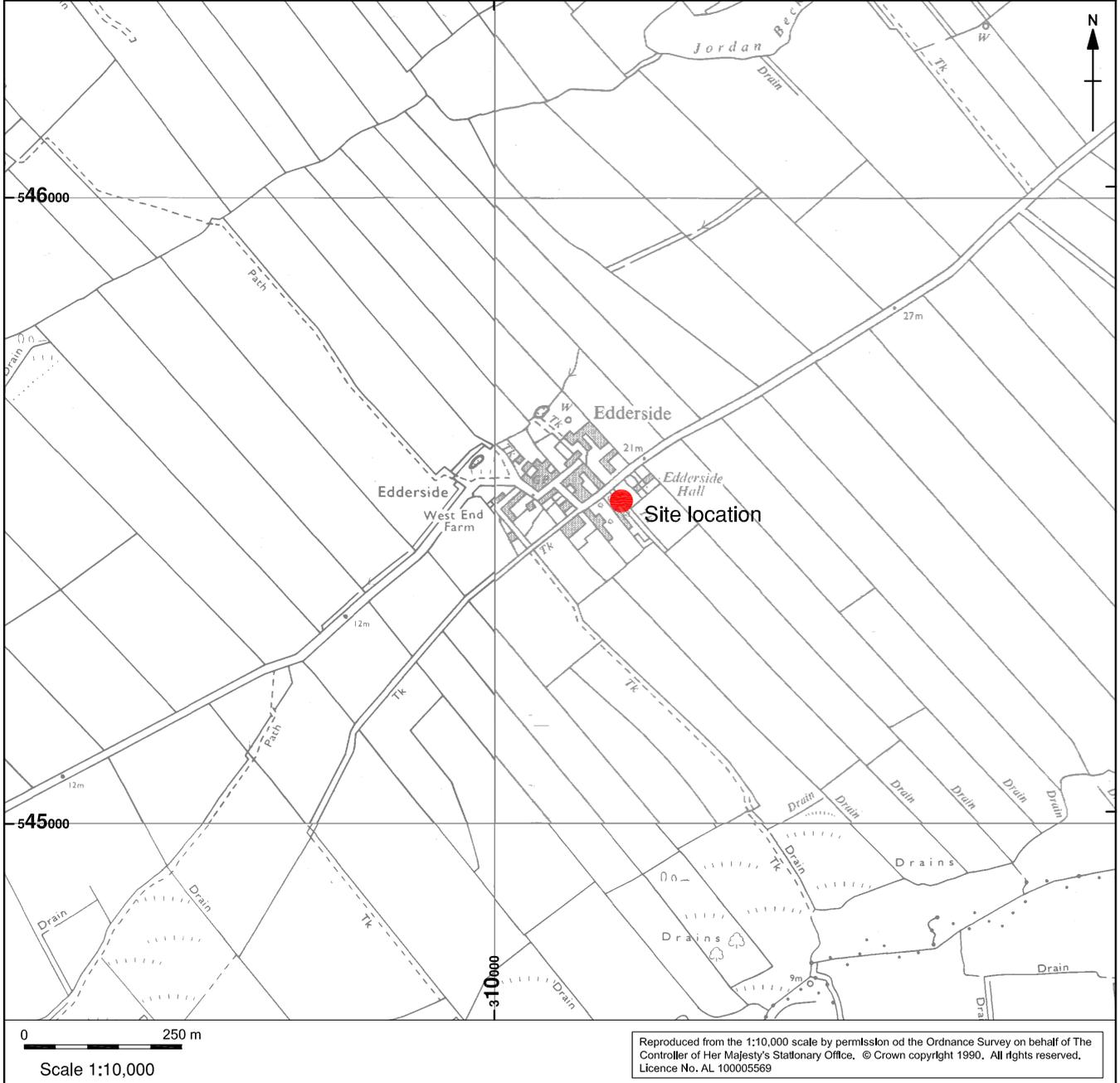


Figure 1: Site Location

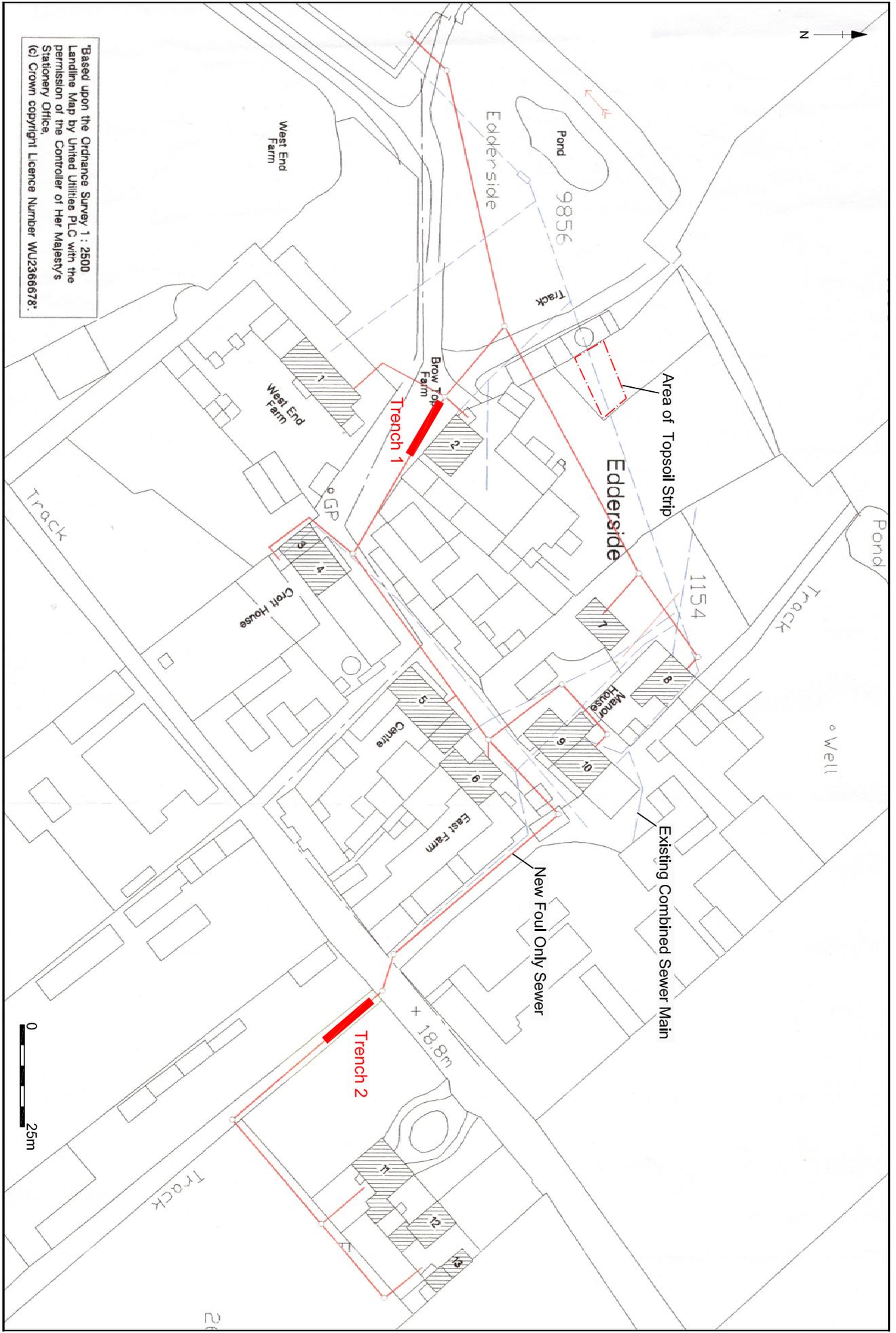


Figure 2: Trench Location Plan



Plate 1: Stripped area, facing east



Plate 2: Sample north-facing section showing made-ground over natural sands



Plate 3: Plan shot of Trench 2, facing east



Plate 4: South-facing section, Trench 2

## APPENDIX 1: PROJECT DESIGN

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## 1. INTRODUCTION

- 1.1 This project design has been compiled for United Utilities with reference to the requirements of a verbal from Cumbria County Archaeology Service. Section 2 deals with OA North's methodology, and Section 3 with the report and archive. Section 4 addresses other issues raised in the brief, including details of staff to be involved, and project costs are presented in Section 5.
- 1.2 OA North is an Institute of Field Archaeologists (IFA) registered organisation, registration number 17, and all its members of staff operate subject to the IFA Code of Conduct.

## 2. METHOD STATEMENT

- 2.1 **Watching Brief:** a programme of field observation will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the course of the proposed ground works for the WwTW and where the new sewer network crosses fields. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 2.2 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan provided by the Client. A photographic record will be undertaken simultaneously.
- 2.3 A plan will be produced of the areas of groundworks showing the location and extent of the ground disturbance and one or more dimensioned sections will be produced.
- 2.4 Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (ie. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 2.5 It is assumed that OA North will have the authority to stop the works for a sufficient time period to enable the recording of important deposits. It may also be necessary to call in additional archaeological support if a find of particular importance is identified or a high density of archaeology is discovered, but this would only be called into effect in agreement with the Client and the County Archaeology Service and will require a variation to costing. Also, should evidence of burials be identified, the 1857 Burial Act

would apply and a Home Office Licence would be sought. This would involve all work ceasing until the proper authorities were happy for burials to be removed. In normal circumstances, field recording will also include a continual process of analysis, evaluation, and interpretation of the data, in order to establish the necessity for any further more detailed recording that may prove essential.

- 2.6 Full regard will, of course, be given to all constraints (services etc.), as well as to all Health and Safety regulations. OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Unit Managers.

### 3 REPORT AND ARCHIVE

- 3.1 **Report:** two copies of a written synthetic report will be submitted to the Client, and a further copy submitted to the Cumbria SMR. An additional copy will also be sent to English Heritage. The final report will include:

- 1 a concise, non-technical summary of the project results;
- 2 an introduction to the circumstances of the project and the aims and objectives of the study;
- 3 a summary of the methodology and an indication of any departure from the agreed project design;
- 4 a copy of the agreed project design;
- 5 an outline of past and present land-use;
- 6 a summary of the archaeological/historical background;
- 7 an assessment of the likely archaeological implications of the proposed development;
- 9 appropriate figures and plates.
- 10 a full list of references to and bibliography of primary and secondary sources consulted and a list of any further sources identified but not consulted.

- 3.2 The report will be in the same basic format as this project design; a copy of the report can be provided on CD-ROM.

- 3.3 **Proposals:** recommendations for any further evaluation of the identified archaeological resource will be presented.

- 3.4 **Confidentiality:** the assessment report is designed as a document for the specific use of the client, for the particular purpose as defined in the project brief and this project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

- 3.5 **Archive:** the results of Section 2 will form the basis of a full archive to professional standards, in accordance with current English Heritage

guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

- 3.6 This archive can be provided in the English Heritage Centre for Archaeology Service format, both as a printed document and on CD ROM (as appropriate), and a synthesis (in the form of the index to the archive and the report) will be deposited with the Cumbria Sites and Monuments Record office. OA North practice is to deposit the original record archive of projects (paper, magnetic, and plastic media) with the appropriate County Record Office, and, where appropriate the material archive (artefacts, ecofacts, and samples) with the County Museums Service. In this instance, the record archive will be sent to the Cumbria Record Office.
- 3.7 The Arts and Humanities Data Service (AHDS) online database *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

#### 4. OUTLINE RESOURCES

- 4.1 The project will be under the management of **Alison Plummer** BSc (Hons) (OA North Senior Project Manager) to whom all correspondence should be addressed.
- 4.2 Present timetabling constraints preclude detailing exactly who will be carrying out the rapid desk-based assessment and watching brief, but all elements of the project are likely to be supervised by an OA North project supervisor experienced in this type of project. All OA North supervisors are experienced field archaeologists capable of carrying out projects of all sizes.
- 4.3 The project will be monitored by the Assistant Archaeologist (CCC), or his representative.