

# **GLENDALE WATER TREATMENT WORKS : ISLE OF SKYE**

(Project No. 766)

AN ARCHAEOLOGICAL ASSESSMENT OF THE SITE AND ITS ACCESS.

February 2004



illus. 1 : Archaeological Site 2 viewed from the east.

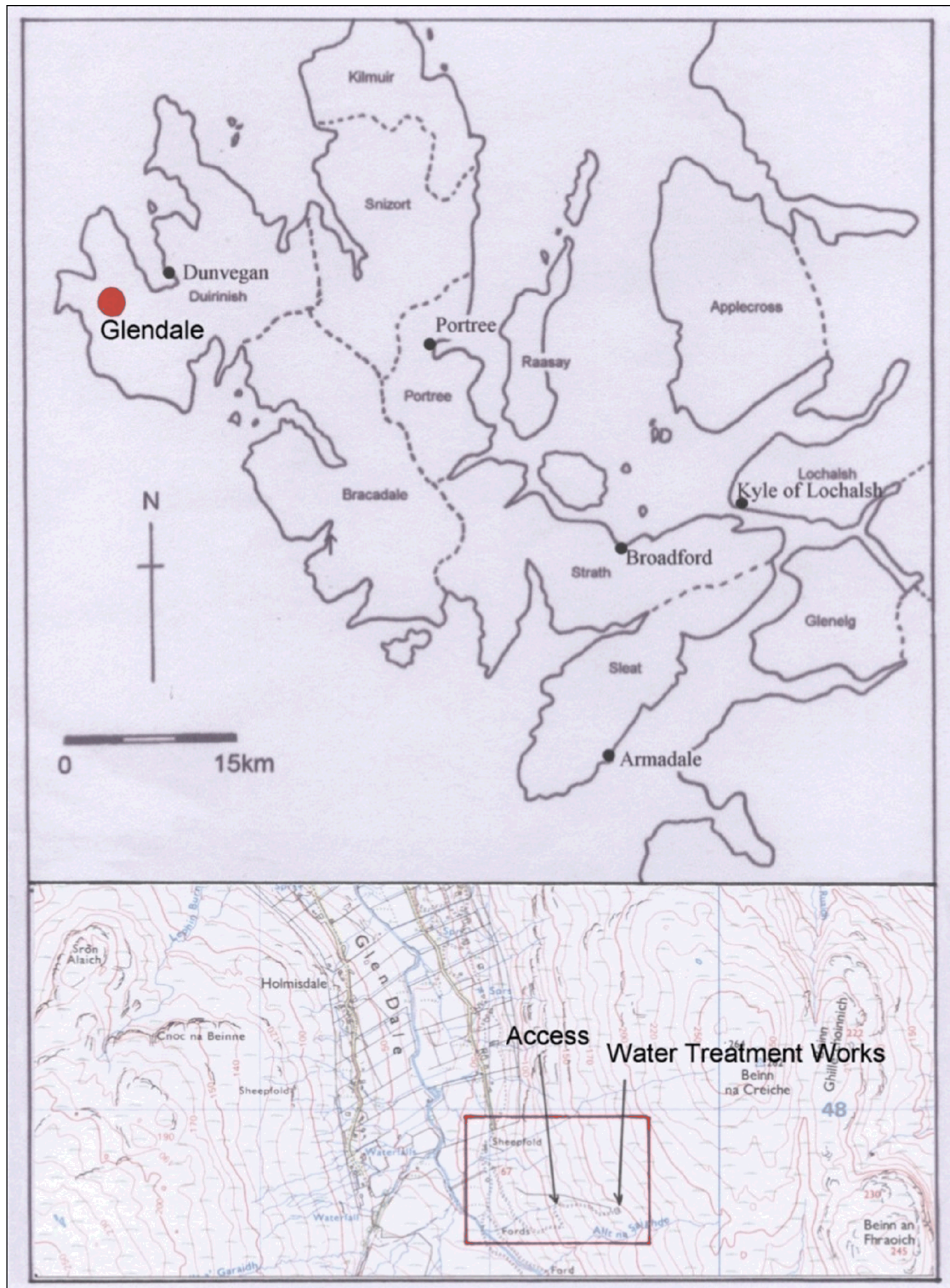
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Report No. 138

For

**Scottish Water Solutions, Reay House, 17, Old Edinburgh Road, Inverness. IV2 3HF**

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illus. 2 : Location of Glendale and Water Treatment Works

**Note**

Illustrations 2 and 3 are based on OS originals with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office. Crown Copyright.  
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**GLANDALE WATER TREATMENT WORKS****NG 19554756****An Archaeological Assessment of the Site and its Access.****February 2004****1.0 SUMMARY**

- 1.1 An archaeological assessment, including desk-based search of relevant archives and walkover survey, in advance of developments works at the Glendale Water Treatment Works, (See illus. 2). The desk based search revealed that only one previously recorded site lies within the development area. The walkover survey identified the remains of a second site and associated linear boundaries. Both the archaeological sites and the boundaries were marked with canes and barrier tape at the time of survey.

**2.0 INTRODUCTION**

- 2.1 In February 2003 Archaeological and Ancient landscape Survey was commissioned by Scottish Water Solutions to undertake an archaeological assessment of the site of a proposed upgrade of the Glendale Water Treatment Works, (Area 2 & 3 on illus. 4), and its access, (Area 1 on illus. 4). The work was commissioned in order that:
- a – The archaeological potential of the site might be better understood.
  - b – Arrangements might be made to mitigate the impact of site works on the surviving archaeology.
- 2.2 Base maps and other relevant materials for the survey were supplied by Scottish Water Solutions, these indicated the extent of the area to be surveyed around the development site and its access road. The development area was split into 3 distinct sections on the maps supplied – Area 1, (The access track), Area 2, (The water treatment works), and Area 3, (A small area lying between the water treatment works and the Allt na Saighde), (See illus. 4).
- 2.3 The area outlined for development lies around the present treatment works, at Glendale on the Duirinish Peninsula in the north-west of the Isle of Skye. The site is accessed by a 0.8km long track which climbs from the Glendale road end, (70 meters OD) to a height of 145 meters OD at the treatment works. A feeder pipe leads from the west corner of the treatment works, in a roughly westerly direction, down to the Glendale community, (Shown as a boundary on the OS 1:25000 maps). The landscape lying around the site grades from old, and now abandoned, settlement and cultivation, (at lower levels) to heather covered peat upland around the treatment works. The current access track cuts through the former agricultural landscape for the first 500 meters of its ascent to the treatment works.



### 3.0 **RESULTS OF THE DESK-BASED SEARCH**

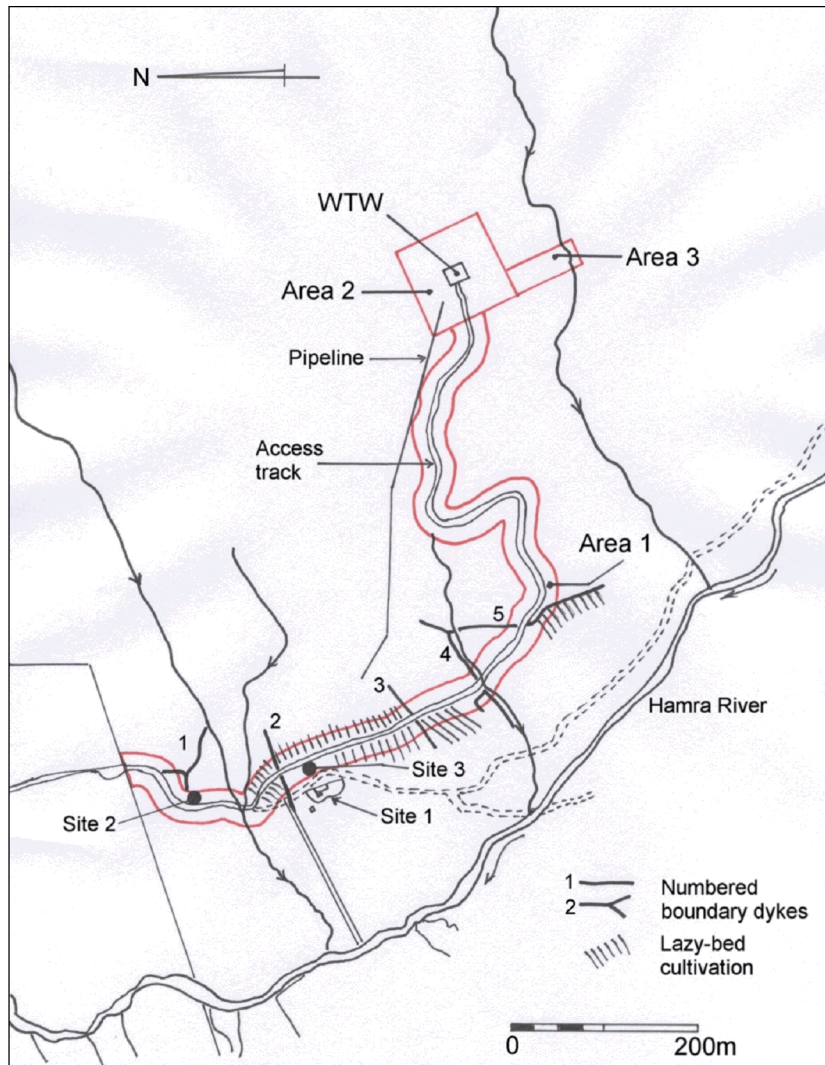
- 3.1 A search, via the Internet, of the National Monuments Record for Scotland, (Canmore/Canmap), the Highland Sites and Monuments Record in Inverness, plus a visit to the Dualchas Sites and Monuments Record in Portree produced only two previously recorded archaeological sites within a thousand meter radius of the development site, (See table 1 below). Neither of these sites lies within the area of survey. Site NG 14NE 24, due to its proximity to the survey area, has been designated Site 1 in this survey.
- 3.2 A search of the relevant OS maps, carried out at the Dualchas Map Archive in Portree, added some new information - The OS 1<sup>st</sup> Ed. I:10560 County Series Map of 1881, shows Site 1, (NG 14NE 24), as a single building, but also shows Site 2 as two structures without a fank. No other structures were shown within the survey area.
- 3.3 A search of the Dualchas Aerial Photo Archive, (Photo's – CPE/SCOT/UK 175, NEG. No. 5062 and 5064, dated 7.10.46), confirmed the evidence of the Internet and map search.

NMRS Number	Nat. Grid Ref.	Description of site
NG 14NE 8	NG 1870 4720	shielings
NG 14NE 24	NG 1910 4770	Settlement

Table 1. List of recorded archaeological sites in the general area of survey.



illus. 3 : Site 2, viewed from the east.



illus. 4 : Area of survey, (Outlined in red), and archaeological features.

#### 4.0 **RESULTS OF THE WALKOVER SURVEY**

4.1 The walkover survey was completed on the 10<sup>th</sup> of February 2004 - an overcast day with occasional showers. The walkover survey recovered one new archaeological site within Area 1, (Site 3 on illus. 4). No new sites were found within Areas 2 and 3. Five boundary dykes were also recorded as they crossed Area 1, as were several areas of lazy-bed cultivation. Details of the new sites, the enclosure dykes and the lazy-bed cultivation are given below and are also shown on illus. 3, 4 and 5.

##### 4.2 **Site 1, (NG 14NE 24)**

Grid ref NG 1900 4770

illus. 4.

Lies on the east side of the Hamra River by the old track which runs in a south-easterly direction up the glen.

An enclosed platform containing the remains of 3 small and one large house. Several other ruinous structures lie close by. Lazy-bed cultivation lies all around the site.

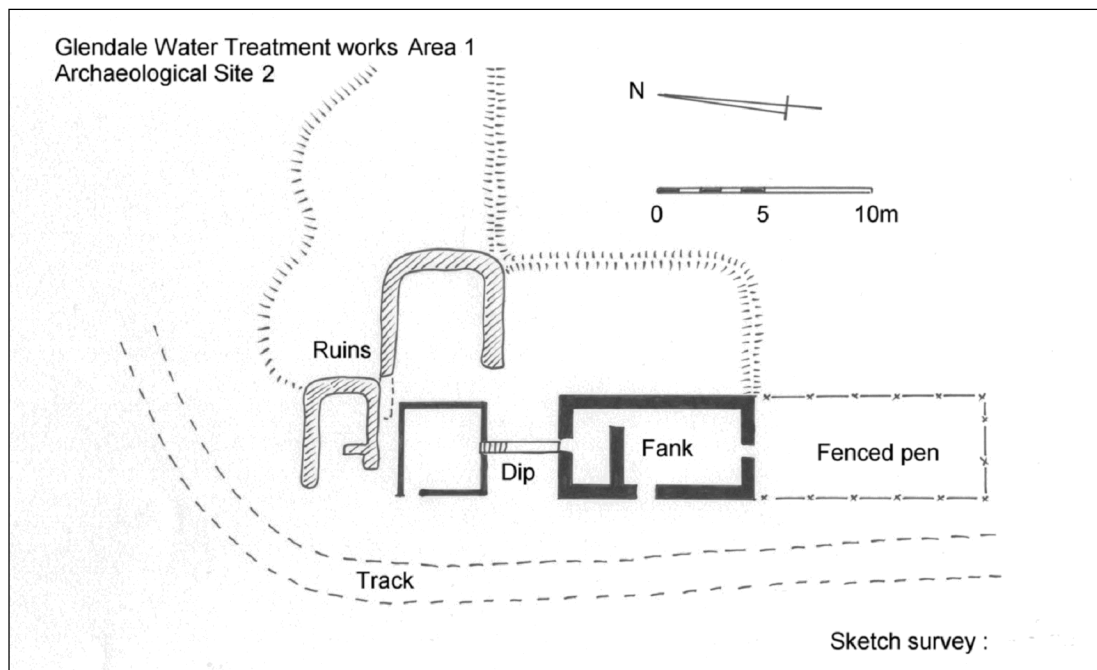
4.3 **Site 2**

Grid ref. NG1899 4883

illus.3, 4, 5.

Lies immediately by the east side of the access track just 150 meters from the gate.

A concrete and stone built sheep fank, consisting of gathering pens, dip and draining pen, which has been imposed upon the remains of at least 2 earlier structures. The earlier structures lie to the north end of the fank and dip and consist of the eastern halves of two, turf and stone built, structures some 6m and 4m wide. The western ends of both structures are missing. A small turf-dyked enclosure lies behind the fank.



illus. 5 : Plan of Site 2.

4.4 **Site 3**

Grid ref. NG 1904 4771

illus. 4, 6, 7.

The ruinous remains of two unusual structures, lying 9 meters apart, lie in dense bracken immediately by the west side of the access track.

The northern structure lies end on to the track, is stone built, and measures 11 meters long by 4.5 meters wide over walls 1 meter thick. The interior of this structure appears to be divided into 3 oval cells, which measure, from the end nearest the road 2.5 meters, 4 meters and 2.5 meters long respectively.

The southern structure lies parallel to the track and is poorly preserved. It is 8 meters long with an open south end. A short length of turf and stone dyke encloses the northern end of the remains.

It is likely that the buildings of Site 3 relate in some way to the complex of buildings recorded as Site 1. Site 1 lies only 30 meters to the west.



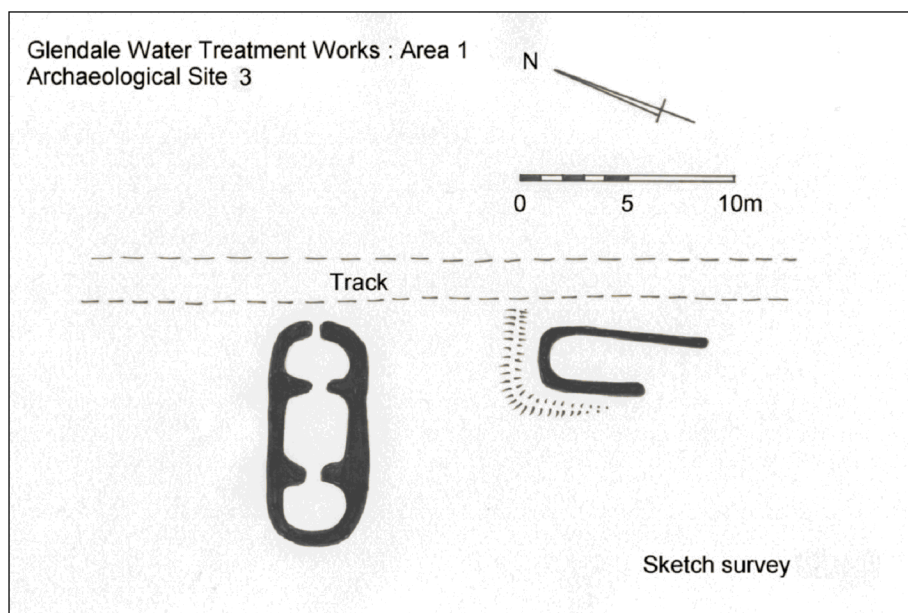
#### 4.5 The Boundary Dykes and Cultivation

illus. 3

The access track cuts through the line of five, well preserved, turf-dyke boundaries, (marked 1 – 5 on illus. 4), and through two areas of intensive lazy-bed cultivation. Both the boundaries and the cultivation probably form part of the agricultural landscape relating to Site 1.



illus. 6 : Site 3 viewed from the east side of the access track. Site 1 in the background.



illus. 7 : Plan of Site 3



## **5.0 CONCLUSIONS**

### **5.1 Area 1**

Area 1, the access track, cuts through an old agricultural landscape. All the archaeological sites recovered during the survey lie within Area 1 and formerly formed part of this now abandoned landscape. It is likely that the earlier phase of Site 2, Site 3 and the boundaries and cultivation recovered during the survey formed part of a greater landscape centred on the enclosures and structures which make up Site 1, (Site 1 lies outwith the surveyed area).

### **5.2 Area 2**

There are no archaeological sites within Area 2.

### **5.3 Area 3**

There are no archaeological sites within Area 3.

## **6.0 RECOMMENDATIONS**

### **6.1 Sites 2 and 3**

Sites 2 and 3 should be preserved within their landscape. Any improvements to the access track should be carried out on the opposite side of the track to the highlighted archaeological sites, where there is ample room free of obvious archaeological remains. In the case of Site 2 widening should be restricted to the west side of the track, in the case of Site 3 to the east side of the track. The marking of both sites, with canes and barrier tape, should be checked prior to the start of site works.

### **6.2 Boundary dykes and cultivation**

The current access track cuts a wide swath through the fossilized agricultural landscape. Any additional widening of the track will only marginally affect the remains of the boundaries and cultivation, and will in no way detract from an understanding of how the landscape worked. There are no recommendations regarding the boundary dykes and access track.

### **6.3 A watching brief, ( a qualified archaeologist on site), should be carried out on site-works as they pass Archaeological Sites 2 and 3 in order that any buried archaeology, or evidence valuable to the dating of the sites, might be recorded before it is destroyed.**

APPENDIX 1 : THE ARCHAEOLOGICAL BRIEF



*Brief for archaeological work*

## **Glendale Water Treatment Works**

**ARCHAEOLOGICAL DESK ASSESSMENT AND  
WALK-OVER SURVEY**

**HIGHLAND COUNCIL  
PLANNING AND DEVELOPMENT SERVICE**

**Archaeology Unit**

## 1) Background

Capital projects can impact on valuable features of historic and archaeological importance. Arrangements should therefore be made to avoid such features wherever possible. Where this is not practicable, they should be recorded before they are damaged or destroyed. This will need to be done by a qualified and experienced archaeologist.

In the highlands, there has been relatively little archaeological survey carried out but conditions have tended to mean that there can be a high survival of features and finds of all periods. These may be buried with only limited visibility above ground. There is therefore a need to establish the potential impact of projects on both recorded and unrecorded archaeology at the earliest possible stage so that an appropriate approach can be taken to preserving them wherever possible, or recording them where preservation is impractical.

The first requirement is for a check of available records, maps and aerial photographs. As many parts of the highlands have not been subject to systematic archaeological field survey, there remains a potential for further unrecorded archaeological sites of all periods to survive. A rapid walk-over survey should therefore be undertaken by an archaeologist at the earliest possible stage to assess the nature and extent of this potential. This should assess the likelihood of buried as well as surface remains, and indicate any areas of particular sensitivity. This approach aims to establish as far as possible the nature and extent of any features of archaeological interest likely to be affected at an early stage so that they can be preserved, or if necessary recorded before destruction.

A report should present the conclusions of this work and propose mitigation and recording arrangements to be followed in this scheme. Such arrangements might include re-routing to avoid key areas, excavation and recording of features, and / or an archaeological watching brief on site clearance and excavations for construction purposes. Although this brief is for a basic desk based assessment and walk-over survey, in some cases, field evaluation by trial trenching or geophysics may also be needed to establish the nature and extent of buried archaeological features. The advice of the archaeologist appointed should be followed in this, but the Archaeology Unit can advise if required.

## 2) Terms of Reference

This brief may be used to obtain estimates from archaeologists. It specifies what we consider to be the **minimum** acceptable standard of work; proposals that present a higher standard may be offered and accepted. *We will assume that this will form the basis of an agreed approach unless changes are agreed with us in writing before the start of any site works.*

This brief has been produced for Scottish Water, who will be responsible for the work, including any tendering and contractual arrangements. It sets out in detail who is responsible for what, as well as the terms of reference, objectives, method, monitoring and reporting arrangements. It may be used to obtain estimates from archaeological contractors as required. It is designed specifically for this scheme and may differ from previous briefs supplied by us for other projects.

**The Archaeology Unit will be pleased to comment on tenders submitted in confidence.** Any tenders should be accompanied by a project design, statement and evidence of competence, including the CV of the Project Director, and other staff where possible.

The work should be carried out by, or under the immediate direction of, a member of the Institute of Field Archaeologists to ensure that work is carried out to professional standards. The Council's Archaeology Unit may refuse to accept work from, or otherwise take action against, archaeologists who fail to carry out work to these standards. Where this brief has been produced in response to a planning condition, and archaeological work

fails to meet the standards set out here, the applicant will also be in breach of the planning condition until matters are rectified.

The area to be covered is the entire development area, and includes any proposed drainage, services or other ancillary works unless otherwise indicated.

The brief is based on documents supplied at the time it was issued. However briefs have to be updated from time to time, so if any of these details do not apply when site works start, or fieldwork commences more than a year from the date below, please contact us to request the latest version.

Before site works start, the proposed arrangements, including a timetable for the work should be agreed with the Senior Archaeologist in writing.

### 3) Objectives

- To identify the location, nature and extent of any features or objects of archaeological importance that would be damaged or destroyed by this project. *'Archaeological features' in this context means - above and below ground archaeological remains and finds of all periods; historic buildings; and designed landscapes or other historic landscape features.*
- To assess the potential for unrecorded or buried archaeological sites as well as surface remains, and indicate any areas of particular sensitivity.
- To propose arrangements for the safeguarding where possible (or recording where necessary) of any archaeological features or finds identified. This may include alterations to the proposed route.
- To propose mitigation measures that will be implemented before or during development work. This could include further assessment of features; recording archaeological features before or during development; marking archaeological features to prevent accidental damage during development; or more general archaeological monitoring on all, or part of, the development ground disturbance.
- To ensure that the needs for archaeological conservation and recording are met without causing any unnecessary delay or disturbance to the project.

### 4) Method

No archaeological excavation is to take place as part of this brief.

#### a) Desk-based Assessment

An initial check of all relevant archaeological records and aerial photographs held in Inverness and Edinburgh will be needed. At least the following sources should be checked:

- *The Highland Council Sites and Monuments Record (SMR)*
- *The National Monuments Record of Scotland (NMRS)*
- *The Map Library of the National Library of Scotland*
- *any locally (private), regionally or nationally-held archives*
- *any aerial photographic coverage*



**b) Walk-over survey and photographic record**

A walk over survey of the project area will be needed to enable identification of any upstanding remains, from any period (including 19<sup>th</sup> and 20<sup>th</sup> century features of historic interest, such as military or industrial archaeology). All significant features should be photographed and the features should be marked on a relevant-scale plan, keyed by means of Grid References to the Ordnance Survey mapping.

The archaeologist should mark the limits of all features on the ground by temporary boundary flags or tape set at least 5m out from the nearest visible feature edge. This should help to avoid accidental damage by contractors or machinery on site.

**c) Report**

A report must be produced which sets out the results of the work and proposes appropriate arrangements for the safeguarding where possible (or recording where necessary) of any objects or features identified. These arrangements must be agreed by the Council's Senior Archaeologist before the start of site clearance works.

**5) Monitoring**

The archaeologist appointed is responsible for agreeing arrangements for monitoring with Archaeology Unit staff. We monitor projects as necessary to ensure that, as far as possible, minimum standards are met. This is usually by unannounced site visit - alternative or additional monitoring arrangements may be made in individual cases.

Prior notice of fieldwork starting dates, with contact names, telephone numbers and arrangements for access must be given to the Senior Archaeologist by the archaeologist contracted to carry out the work.

**Any unexpectedly significant or complex discoveries, or other unexpected occurrences which might significantly affect the archaeological work and /or the development must be notified by the archaeologist immediately to the applicant and the Senior Archaeologist. Such finds or features must not be disturbed until arrangements have been agreed for safeguarding or recording them.**

**6) Reporting****a) Project report**

The archaeologist appointed is responsible for producing a report on the work, and for making sure copies have been received by the recipients listed below. We require archaeologists to submit satisfactory reports within the agreed deadline.

At least **five** copies of the project report must be produced. These must be submitted to all of the following **within 4 weeks** of the completion of the field work.

- At least one paper copy for Scottish Water.
- One paper copy to be deposited with the Council's Senior Librarian Information Co-ordinator, Libraries Support Unit, 31a Harbour Road, Inverness IV1 1UA. This will be available for public consultation through the public library service.

- One paper copy to be deposited with the Council's Assistant Curator (Archaeology), Museum & Art Gallery, Castle Wynd, Inverness IV2 3EB.
- Two copies for the Archaeology Unit, The Highland Council, Planning and Development Service, Council Offices, Glenurquhart Road, Inverness IV3 5NX :
  - One paper copy
  - One copy of the complete report in Adobe Acrobat format (i.e. a *pdf* file). This can be supplied by email or on a computer disc. Please ensure that all drawings and photographs are included.

The report must include, as a minimum:

- Location plan showing the project area and all archaeological features affected. Grid references must be included.
- Circumstances and objectives of this work, including a copy of this specification.
- Weather and other conditions affecting fieldwork.
- Measured sketch plans and photographs of all significant archaeological features noted and the general area of development.
- A full index to any records or other material generated by the project including the archive location.
- A brief analysis of the project results drawing in comparative data as appropriate, a statement of the archaeological potential of the area and significance of the results for future research.
- A list of finds, set out in the required format for Treasure Trove reporting. Copies of the necessary forms are obtainable if required from the Council's Assistant Curator (Archaeology), Museum & Art Gallery, Castle Wynd, Inverness IV2 3EB.

#### **b) Presentation**

Where significant archaeology has been found, this specification includes arranging a presentation of the project results, to the local community within a year of the completion of the fieldwork. This is the responsibility of the archaeologist appointed who should allow for any costs when estimating for the work. Arrangements must be agreed with the Senior Archaeologist.

#### **c) DES**

A brief summary of the results must be sent to the Council for Scottish Archaeology for inclusion in *Discovery and Excavation in Scotland*. This is also the responsibility of the archaeologist appointed who should allow for any costs when estimating for the work.

#### **d) Copyright**

The Council will assume author's copyright unless advised otherwise. However, the Archaeology Unit reserves the right to make the report available for reference and research purposes, either on paper, or electronically. The completed report will be made available for immediate public consultation for research purposes at the Highland Council Sites and Monuments Record, and through the public library service. The Archaeology Unit will acknowledge copyright in all cases.

## 7) Finds

Chance finds can be made during any archaeological fieldwork. Archaeologists should note that advice and facilities for emergency conservation and temporary storage can be offered by Inverness Museum on consultation with the Conservation Officer and Assistant Curator (Archaeology). A list of services and table of costs are available from the museum.

Archaeologists undertaking fieldwork should notify the Council's Assistant Curator (Archaeology) at Inverness Museum, who will in turn notify local museums of the fact that there is archaeological work ongoing in the area. All finds should be notified for Treasure Trove before the report is submitted.

## 8) Insurance

The archaeologist appointed must take all necessary measures to conform with the Health and Safety at Work Acts and be covered by all necessary insurance. Section 24 of the Highland Council's revised Contracts Standing Orders states:

"All specifications issued by and contracts entered into with the Council in connection with the carrying out of work or the provision of services shall provide that the contractor holds a valid insurance policy, approved by the Council, for:-

- (1) Employers liability - minimum limit - £10m (statutory limit)
- (2) Public liability - minimum limit £5m."

## 9) General

The archaeologist agrees by undertaking this work to the terms of this brief, including the following:

The archaeologist appointed must:

- carry out the work according to the Code of Conduct, standards and guidelines of the Institute of Field Archaeologists.
- agree a timetable for the work with the client and the Senior Archaeologist.
- not comment to the press or other media without prior approval from the Senior Archaeologist.
- fully allow for prevailing weather conditions in northern Scotland.

Any Health and Safety incidents on site involving the archaeologist must be immediately notified to the Health and Safety Executive.

This brief has been produced for the Council's Senior Archaeologist, to whom any enquiries should be addressed. No one else has authority to vary its terms.

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John Wood

Senior Archaeologist

Wednesday, 22 October 2003

Version 1.2

22/10/03

**APPENDIX 2      LOCATION OF RECORDS**

All survey and research records generated by this assessment are kept in the archive of:-

Archaeological and Ancient Landscape Survey

c/o     Martin Wildgoose  
         Tigh an Dun  
         Dunan  
         Broadford  
         Isle of Skye.   IV49 9AJ

Tel.     01471 822 562

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END

Martin Wildgoose AIFA

February 2004