

I. ARCHAEOLOGY

INTRODUCTION

- I.1. This Chapter of the ES addresses the known and potential archaeological features within the study area, the impact of the proposed development upon them and the most appropriate measures for mitigating that impact. The methodology comprised a desk-based assessment followed by a walkover survey of the site.
- I.2. The key objectives of the assessment are to:
- Evaluate known and potential archaeology around the proposed site and evaluate its importance;
 - To describe what the potential effects might be on these resources;
 - Assess and describe the effects of the wind farm and its associated infrastructure on the known archaeological and historical remains, and to evaluate their significance;
 - Assess the potential for unforeseen archaeological remains which could be affected by the proposed development
 - Formulate an appropriate archaeological avoidance and mitigation strategy

Planning Policy Context

- I.3. The following policies set out the issues associated with archaeological features of the site:
- National Planning Policy Guideline (NPPG) 5 'Archaeology and Planning' states that the preservation of ancient monuments and their setting is a material consideration determining proposals for development. The NPPG provides guidance on deciding whether development should process, and scope for mitigation where necessary and appropriate.
 - Policy G6 of the Structure Plan aims to promote and conserve archaeological features. Policy BC1 provides a further focus, emphasising the importance of preservation, and where this is not possible, that features should be recorded at the expense of developers.

ASSESSMENT METHODOLOGY

Data sources

- I.4. The desk-based assessment comprised:
- Background research (references listed at the end of report – **see full report in Appendix ?**)

- An examination of existing aerial photographic coverage held at the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS).
- A search of the National Monuments Record for Scotland (NMRS) held at the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) which contains information on all known archaeological sites in Scotland, often cross referenced to other material such as early photographs
- A search of Highland Council's Sites and Monuments Record, Inverness
- Cartographic evidence held in the National Library of Scotland Map Room, Edinburgh.
- Highland Council Archives, Inverness and Inverness Library. The former also held other pertinent records especially lists of estate papers that were used to inform the history of the Gordonbush Estate (see references listed at the end of the report)

Field Survey methodology

- 1.5. An archaeologist undertook a thorough walkover survey of the area that would potentially be affected by the wind-farm proposals. Any archaeological features encountered during the survey were mapped using a GPS handset and plotted onto 1:5,000 OS Maps, a photograph record and written description made.

Possible Types of Impact and Significance

- 1.6. For the wind-farm scheme, the main possible types of impact on sites or remains of archaeological interest are:
- **direct impacts**, include physical damage to buildings, sites or features (including partial or total removal), and severance of features, especially linear features
 - **indirect impacts**, including visual intrusion on buildings, sites or features, which affects their setting; and those caused by disturbance from vibration, changes in hydrology or land surface levels etc.
- 1.7. These impacts normally occur at the construction stage during ground works such as topsoil stripping and or excavation. Associated activities such as the movement of plant or vehicles and soil storage may also cause impacts. Due to the nature of the proposed development and the finite nature of archaeological resources, direct impacts would be permanent and irreversible. Indirect impacts may only be temporary during the construction phase, but could also have permanent repercussions (i.e. causing changes in hydrology).

Significance criteria

- 1.8. The significance of impacts is likely to depend on several factors including:
- The proportion of the site or feature affected
 - The integrity of the site or feature (if the site has already be damaged or partly removed, the impact may be regarded as lessened)
 - The nature, potential and perceived heritage value of the site or feature affected.

1.9. QUALIFICATIONS AND EXPERIENCE OF ASSESSOR

The author (Stuart Farrell) is a an archaeologist of 10 years experience with a degree in Archaeology and Prehistory form the University of Sheffield, also a Fellow of the Society of Antiquaries of Scotland and an Associate of the Institute of Field Archaeologists. The author has been a freelance consultant archaeologist for the last 5 years.

EXISTING CONDITIONS

Geology and Topography of the Area

- 1.10. Gordonbush Estate is a farm of **c. 600?? acres** in the hinterland of Sutherland with the survey area centred at NC 860/150 (centred). **The farm lies along the c. west of and c. 2km east of** The landscape of the area for the proposed wind turbines is generally upland moorland of heather and grass.

Archaeology and History of the Area

- 1.11. The known archaeology of the area of the proposed wind-farm is limited to a number of sites along the existing access roads, in the form of a number of small farmsteads, prehistoric sites include a cairn and possible hut circles.
- 1.12. That the farmsteads are now out of use suggested that farm improvements are likely to have taken place in the late 19th century.

Results of the Desk Assessment with basic description

- 1.13 The following sites were identified from the National Monuments Record (Scotland) and Highland Council Sites and Monuments Record (Inverness) on Gordonbush Estate:

Breac-Achadh

NMRS – NC81SW 46

HSMR – NC81SW 61

Grid Ref: - NC 847/115

Type – Township, sheepfold

Noted in HSMR and NMRS of 'the township of Breach-achadh comprises of 1 roofed, 2 unroofed and 2 unroofed circular structures, one of which is a sheepfold and a field system are depicted on the 1st edition OS map of 1879 sheet 88. 1 roofed, 3 unroofed buildings, 2 of which are L-shaped and have 2 compartments, a field system and a possible head dyke are shown on OS map of 1963'.

Breac-Achadh

NMRS – n/a

HSMR – NC81SW 49

Grid Ref: - NC 848/116

Type – Depopulation

No information on HSMR database. Likely to be same site as above.

Breac-Achadh

NMRS – n/a

HSMR – n/a

Grid Ref: - NC 84818/11806

Type – Buildings

Group of 2 buildings to the N in area of Breac–Achadh that do not appear on 1st edition OS but do appear on 2nd edition OS of 1907.

Allt Smeoral

NMRS – n/a

HSMR – n/a

Grid Ref: - NC 85099/12195

Type – Buildings, sheepfold

2 square buildings and a circular sheepfold marked but not named on latest OS map.

Sheepfold is marked and named on 1st edition OS of 1879 and unchanged on 2nd edition OS of 1907. Sheepfold is located at NC 85101/12260.

Ristocky

NMRS – NC81SE 5

HSMR – NC81SE 6

Grid Ref: - NC 8514/1252

Type – Building

Noted in HSMR and NMRS of 'an unroofed building is depicted on 1st edition OS map of 1879 sheet 88 and on OS map of 1963'. Marked on latest OS map as an irregular shaped square.

Ristocky

NMRS – NC81SE 2

HSMR – NC81SE 2 & 14

Grid Ref: - NC 852/126

Type – Farmstead

Noted in HSMR and NMRS of 'farmstead of an unroofed building and enclosure is depicted on 1st edition OS of 1879 sheet 88. 1 unroofed building and 2 enclosures are depicted on OS map of 1963'.

Badan

NMRS – NC81SE 1

HSMR – NC81SE 3 & 10

Grid Ref: - NC 8560/1282

Type – Farmstead

No information available on HSMR database. Noted in NMRS of 'a farmstead of an unroofed building and an enclosure is depicted on the 1st edition OS map of 1879 sheet 88. Three unroofed buildings and 2 enclosures are shown on the OS map of 1963'.

Cnoc a' Ghanain

NMRS – n/a

HSMR – n/a

Grid Ref: - NC 83606/12031 (centred)

Type – Grouse butts

9 grouse butts aligned NW-SE is marked on the latest OS map. Not marked on the 1st or 2nd edition OS maps.

Loch Mhuilinn
NMRS – NC81SW 31
HSMR – n/a
Grid Ref: - NC 83196/12325
Type – Hut circle

Hut circle marked on latest OS map. Not recorded in HSMR database. Noted in NMRS of 'a hut circle measuring 13.5m SSW-NNE by 13m within, slight wall spread to 2m. The structure is peat obscured with no stones visible. The entrance is in the SSW. There are no traces of contemporary cultivation in the area. OS 5/1/1976'.

Allt a' Mhuilinn
NMRS – NC81SW 19
HSMR – NC81SW 19
Grid Ref: - NC 8275/1150
Type – Chambered Cairn

Noted in 1909 to been excavated partly but standing 6ft high (RCAHMS, 1911) with some of the stones later being used for a nearby dam (Davidson, 1948). Noted by the OS of 1964 and 1975 as to be as described by Henshall (1963) who visited in 1957 but now reduced to ground level and 19m in diameter. More recently a detailed survey and description has been undertaken in 1993 (see Henshall and Ritchie, 1995, 82-83).

Allt a' Mhuilinn
NMRS – NC81SW 20
HSMR – NC81SW 20
Grid Ref: - NC 8280/1140

Type – Clearance cairns, hut circles

Recorded by Davidson (1948) as a stone circle. Noted by OS in 1964 of further 3 enclosures being identified. Revised in 1975 by the OS that 'structures form 4 hut circles of a-d with huts a-c oval varying in size from about 12m x 11m to 8m x 8m internally, the longer axis being through the entrance in the S. d, the best preserved is the "stone circle2 noted by Davidson, measuring 10.8m internally with a wall 1.3m thick entrance to S. Hut c is in poor condition obscured to the E by a land-slip. Apart from 3 or 4 scattered clearance cairns no sign of field system in vicinity, though system occurs up the hill to the E.'

Ascoile
NMRS – n/a
HSMR – n/a
Grid Ref: - NC 82583/11040
Type – Sheepfold

Circular enclosure marked on 1st edition OS of 1879 and as sheepfold on 2nd edition OS map of 1907 but not marked on latest OS map.

Ascoilbeg
NMRS – NC81SW 7
HSMR – NC81SW 7
Grid Ref: - NC 829/107

Type – Deserted Settlement

Noted in HSMR and NMRS of 'Marked on Roy's military map of 1747 as Koylbeg of a group of 6 buildings with arable beside river. Noted by OS in 1964 of footings and remains up to 0.4m in height of at least 12 buildings ranging in sizes from 7.5m by 4m to 37m by 4.5m, together with enclosures.

Allt Ghimner
NMRS – n/a
HSMR – n/a
Grid Ref: - NC 86602/15604 (centred)

Type – Grouse butts

8 grouse butts aligned NE-SW is marked on the latest OS map. Not marked on the 1st or 2nd edition OS maps.

Allt Ghimner
NMRS – n/a
HSMR – n/a
Grid Ref: - NC 86729/14521 (centred)
Type – Grouse butts
11 grouse butts aligned NNW-SSE is marked on the latest OS map. Not marked on the 1st or 2nd edition OS maps.

Ruidhean
NMRS – NC81SW 47
HSMR – NC81SW 62
Grid Ref: - NC 847/108
Type – Farmstead (possible)
Noted in HSMR and NMRS of 'what may be a farmstead, comprising 1 unroofed building and an unroofed structure, which may be an enclosure is depicted on the 1st edition OS map of 1879 sheet 88. Not shown on OS map of 1963'.

The full information concerning the archaeological survey of the area is to be found in appendix ??.

Overall the majority of the sites relate to a post-medieval agricultural landscape in the form of small farms with buildings, enclosures and sheepfolds, being later replaced with a larger sheep farm. The small number of surviving prehistoric sites indicates possibly how much of the land has been improved.

Maps & Aerial Photographs

- I.14. The available Ordnance Survey maps were consulted for information concerning the archaeological and historical development of the area. By the time of publication of the first edition of the Ordnance Survey maps of Sutherland (25 inches to the mile) in 1879, the pattern of the landscape had changed significantly to resemble that of today with most of ground being marked as moorland.

Comparison of recent maps with those of the first edition of the Ordnance Survey shows little additional information. Some alteration to the farmsteads in their abandonment is the main feature marked on the various edition consulted.

A study of aerial photographs held in the Royal Commission on the Ancient and Historic Monuments of Scotland in Edinburgh were very limited with only partial cover for 1946 and the latest coverage of 1989 was limited due to scale.

Highland Council Archives, Inverness

- I.15. Archive sources in the archive section of Inverness Library provided further information on the archaeology and history of the proposed development area.

A list of the Sutherland Estate Papers held in the National Library form 3 large accessions (313, 10225 and 10853) are very extensive and would need detailed study to extract information with regards Gordonbush's history. Though some history of the estate is available from the County Valuation Rolls and Adam's work on Sutherland Estate Management (Adam, 1972).

Searches through the various Statistical Accounts of Scotland, did not throw any extra light on the archaeology or history of the land under discussion.

Other Sources

- I.16. Only one site (the chambered cairn at Allt a' Mhuilinn) has seen any previous archaeological field survey being undertaken by Henshall (1963) and later revised and re-planned by Henshall and Ritchie (1995). The overall area is one that has seen little archaeological study possibly due to the limited archaeological potential of the area.

Results of the Field Survey

Sites Identified

- I.17. As illustrated in Figure ???, the following unrecorded archaeological sites were identified during the field survey.

Allt a' Mhuilinn

NMRS – n/a

HSMR – n/a

Grid Ref: - NC 82791/115588

Type – Cairn

Small cairn revealed during walkover survey of 4.5m diameter and up to 2.5m in height.

Possible kerbstones to south edge.

Allt a' Mhuilinn

NMRS – n/a

HSMR – n/a

Grid Ref: - NC 82756/11523

Type – Structure

Site revealed during walkover survey of a circular structure 5m in diameter with walls

0.7m high and 0.3m thick in area of bracken.

** the GPS ere recorded at each location using as Garmin II Plus GPS.

The full information concerning the archaeological survey of the area is to be found in appendix ??.

Unknown Sites

- I.1.8. Given that few new sites have been recorded during the present field survey, it is highly unlikely that other sites, which are not visible as surface remains, exist in the area.

ASSESSMENT OF IMPACTS

- I.1.9. This part of the Chapter indicates the potential impacts (both construction and operational) which could affect the identified sites. It also highlights those

sites, which could suffer direct physical damage due to the proposed works associated with the development of the wind-farm.

Table ??? Summary of Potential Construction and Operational Impacts on Archaeological Features

NMRS No	NGR*	Site Type	Potential impacts
NC81SW 46	NC 847/115	Township	Damage by vehicles due to sites lying in wayleave for access road
NC81SE 2	NC 852/126	Farmstead	Damage by vehicles due to site lying in wayleave for access road
NC81SE 1	NC 8560/1282	Farmstead	Damage by vehicles due to site lying in wayleave for access road
NC81SW 19	NC 8275/1150	Chambered Cairn	Damage by vehicles due to site lying in wayleave for access road. Also lying close to existing burrow pit.
NC81SW 47	NC 847/108	Farmstead (possible)	Damage by vehicles due to site lying in wayleave for access road

The impact on the monuments and sites has been assessed as moderate. None are to be directly affected by the proposed access road.

The construction of access road the wind-farm may have an impact on the above that regular vehicular access to the site could cause damage over a number of years as a result of vibration. However, the effect of this is considered to be negligible, given that road traffic movements will be minimal after construction.

- 1.20. Unknown heritage in the vicinity of the remains may also be affected by the construction. Clearly, as they are unknown, it is difficult to make a judgement on the potential impacts of the wind-farm. However, given that considerable iteration has already taken place with a view to safeguarding known resources, and in light of the mitigation proposals set out below, such impacts could be safely viewed as being of only minor significance.

Operational impacts

- 1.21. The main impacts during the operational phase relate to the possible direct impact of the access road to the sites listed in table ???. Though this is considered to be minor, given that the site layout of the wind-farm makes provision for the turbines to be some distance away from the remains.

MITIGATION

- I.22 Based on the analysis of impacts set out above, it is proposed that any ground disturbance during the construction of the access road should be monitored, with a view to fencing off the sites close to the access road. Monitoring would be undertaken to ensure that contractors are aware of sites and construction impact kept to a minimum. This monitoring is in line with the advice set out in Planning Advice Note 42, *Archaeology – the Planning Process and Scheduled Ancient Monument Procedures (1994)*.

REFERENCES

I.23.

Adam, R J (1972) Papers on Sutherland Estate Management 1802-16. 2 volumes. Scottish History Society. T & A Constable Ltd.

County Valuation Rolls for Sutherland 1874 – 1915.

Davidson, J M (1948) A Miscellany of Antiquities in Easter Ross and Sutherland. Proceedings of the Society of Antiquaries of Scotland 1945-6, 80, 25-33.

Henshall, A S (1963) The Chambered Tombs of Scotland. Volume 1. Edinburgh University Press.

Henshall, A S & Ritchie, J N G (1995) The Chambered Cairns of Sutherland : An Inventory of the Structures and their Contents. Edinburgh University Press.

Highland Sites and Monuments Record database entries for NC81SW & NC81SE.

IFA (1999) By-laws, Standards and Policy Statements of the Institute of Field Archaeologists. Reading.

National Monuments Record of Scotland CANMORE database entries for NC81SW & NC81SE.

Ordnance Survey Name Book Sutherland – Clyne book 26, pages 71,75,76 & 79.

RAHMS (1911) Royal Commission on the Ancient and Historical Monuments of Scotland: Inventory of Monuments in Sutherland. HMSO. Edinburgh.

OS Maps Consulted

Sutherland Edition of 1879 (surveyed 1871) 6 inch to a mile sheets 88 and 97.

Sutherland Edition of 1907 (revised 1904) 6 inch to a mile sheets 88 and 97.

NC81SW OS map sheet of 1969 1:10,560.

NC81SE OS map sheet of 1963 1:10,560.

Aerial Photographs Consulted

RAF RAF/CPE/Scot/UK 180 1136-1142 (gap) then 1202-1199, 1473-1478, 4133-4137
Flown 8-10-1946 1:10,000

RAF RAF/CPE/UK 297 3197-3196 (end of run for CPE/180 – no cover for rest)
Flown 18-9-1947 1:10,000

