



Caplich Wind Farm

Environmental Statement

Volume Two: Main Report

January 2015



This Environmental Statement has been prepared by Muirhall Energy for submission to the Scottish Government to accompany the application for consent to construct Caplich Wind Farm under Section 36 of the Electricity Act 1989 and deemed planning permission under the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc. (Scotland) Act 2006.

The Environmental Statement has been prepared in accordance with the requirements of the European EIA Directive 85/337/EEC, as amended, as applied through The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 as amended by The Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2008.

Muirhall Energy consists of a multidisciplinary team with over 40 years of professional experience, with qualifications to PhD level and Chartered Scientist, including expertise in rural planning, land surveying, environmental science, physics, geography, zoology and law. Muirhall Energy has project managed the EIA process and the production of the ES and has brought together a specialist team to complete the individual studies.

The Environmental Statement contains full details of all environmental impact assessments that have been undertaken and includes figures (maps, diagrams and visualisations) and appendices. Please note all figures are located at the end of their associated Section. The Environmental Statement consists of five volumes:

- Volume 1 is the Non-Technical Summary (NTS), which sets out the main findings of the ES;
- Volume 2 is the Main Report (this document) and presents the findings of the assessment of the likely significant environmental effects of the proposal;
- Volume 3 is the Landscape and Visual Impact Assessment Figures and should be read in conjunction with Chapter 4 of the Main Report (Volume 2);
- Volume 4 is the Technical Appendices and stand-alone consultant reports; and
- Volume 5 is the Confidential Annex used to keep environmentally sensitive information.

A separate Planning Policy Statement is submitted in support of the application.

The Environmental Statement may be viewed at the following locations:

- Assynt Leisure Centre, Culag New Pier, Lochinver, IV27 4JP
- Bonar Bridge Library Service Point, Carnegie Building, Lairg Road, Bonar Bridge IV24 3EA
- Elphin Community Hall, Lairg, Sutherland, IV27 4HH
- Lairg Service Point, Police Station, Main Street, Lairg IV27 4DB
- Rosehall Village Hall, by Lairg, IV27 4EU
- The Highland Council North Area Planning Office - Sutherland and Easter Ross, Drummuie, Golspie KW10 6TA
- The Highland Council Headquarters, Glenurquhart Road, Inverness, IV3 5NX
- Ullapool Service Point, North Road, Ullapool, IV26 2XL

A copy of the Non-Technical Summary is also available directly from Muirhall Energy either on request or by downloading it from the website. The full Environmental Statement is available on request at the following costs:

- Non-Technical Summary: Free of charge;
- Environmental Statement (Text, Figures and Technical Appendices) on CD in PDF format: £5
- Environmental Statement (Text, Figures and Technical Appendices) printed: £250;

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1.1. The Proposal

This Environmental Statement (ES) has been prepared to accompany an application to the Scottish Government for consent to construct a wind farm on land at Caplich Estate. The site is located within Sutherland in the administrative boundary of The Highland Council. The site location is shown in **Figure 1.1** and is approximately 5 kilometres (km) from Oykel Bridge, 10km from Rosehall, 20km from Lairg, 25km from Ullapool, 27km from Ardgay and 28km from Bonar Bridge.

Caplich Wind Farm will comprise 20 wind turbines, associated access tracks, crane hardstandings, up to two meteorological masts, an on-site control room and substation, up to eight borrow pits and up to three temporary construction compounds as well as grid cables.

The wind farm will utilise a wind turbine with a maximum ground to blade tip height of 132 metres (m). The candidate turbine has a capacity of 3.4 Megawatts (MW), so the likely installed capacity of the wind farm will be 68 MW. The Development could generate the electrical energy equivalent to the average annual demand of approximately 39,300 homes, further details are provided in **Chapter 12.8: Carbon Savings, Climate Change and Atmospheric Emissions**.

1.2. Climate Change and Renewable Energy

Climate change is one of the great challenges of the 21st century and threatens irreversible and dangerous impacts to human health, livelihoods and the environment. The Intergovernmental Panel on Climate Change (IPCC) is the leading international body for the assessment of climate change set up in 1988 by the United Nations (UN) and the World Meteorological Organization (WMO).

The IPCC Fifth Assessment Report released in November 2014¹ is the most comprehensive assessment of scientific knowledge on climate change. The report provides overwhelming and compelling scientific evidence that climate change is happening, is caused by human activity and will have a devastating impact if urgent action is not taken to reduce our carbon emissions and invest in mitigation.

Renewable energy sources have a large potential to displace emissions of greenhouse gases from the combustion of fossil fuels and thereby to mitigate climate change. Renewable energy sources can also contribute to economic development, to a secure and sustainable energy supply, reducing dependency on foreign fossil fuels imports and to a reduction of negative impacts of energy provision on the environment and human health².

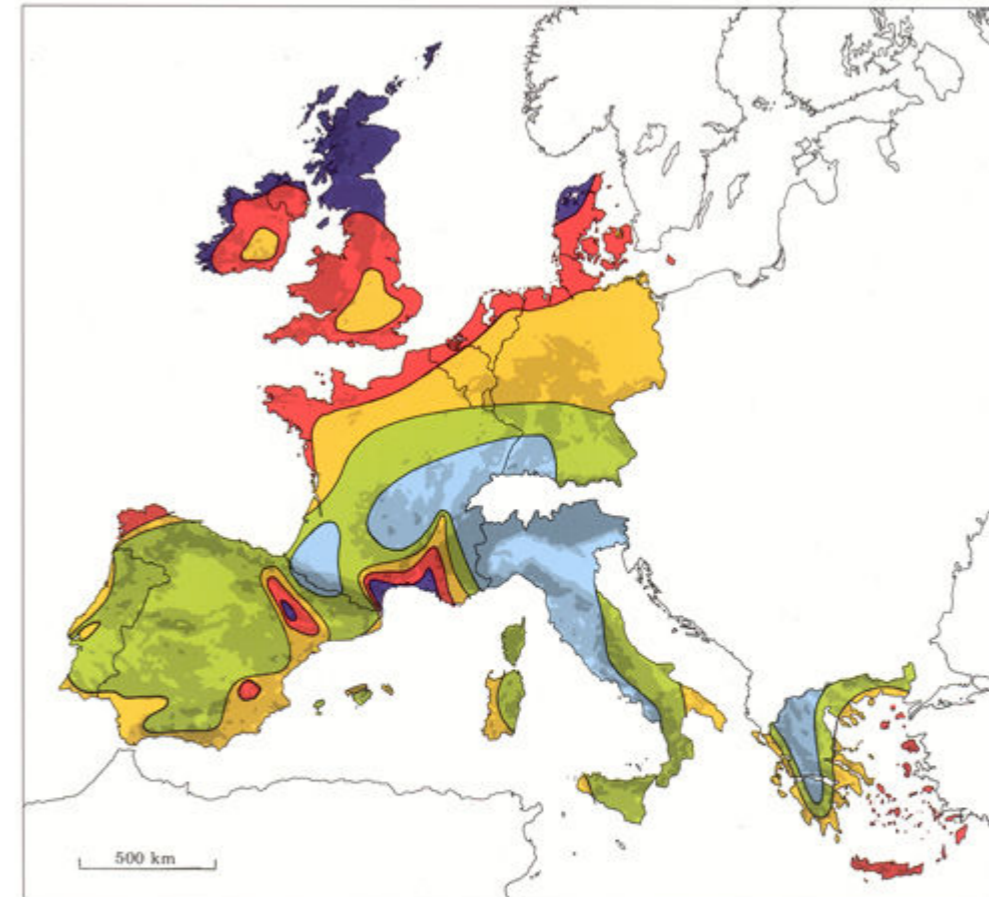
In recognition to the urgency and size of the threat that Climate Change poses globally European Union (EU) leaders agreed in October 2014 to adopt a binding 2030 greenhouse gas reduction target to increase to at least 40% below 1990 levels³. This represents a doubling of the current EU 2020 targets to reduce by 20%. In terms of the renewable electricity target this represents increasing from 21% today to at least 45% in 2030.

¹ The IPCC Fifth Assessment Report produced by more than 830 experts, authors, editors from over 80 countries and covering a range of scientific, technical and socio-economic views and expertise, and is the synthesis of three Working Groups covering 'The Physical Science Basis' in September 2013, 'Impacts, Adaptation and Vulnerability', in March 2014 and 'Mitigation of Climate Change' in April 2014. See <http://www.ipcc.ch/index.htm>

² IPCC, 2011: IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation (SRREN).

³ European Commission 2030 Framework for Climate and Energy Policies. Downloaded from URL: http://ec.europa.eu/clima/policies/2030/index_en.htm last downloaded 08.12.2014

Scotland has an exceptional wind resource and is recognised as having one of the best in Western Europe as shown in Error! Reference source not found.. In response to this the Scottish Government has set an ambitious and challenging target to deliver at least the equivalent of 100% of Scotland's gross electricity consumption by 2020⁴.



Wind resources ¹ at 50 metres above ground level for five different topographic conditions									
Sheltered terrain ²		Open plain ³		At a sea coast ⁴		Open sea ⁵		Hills and ridges ⁶	
ms ⁻¹	Wm ⁻²	ms ⁻¹	Wm ⁻²	ms ⁻¹	Wm ⁻²	ms ⁻¹	Wm ⁻²	ms ⁻¹	Wm ⁻²
> 6.0	> 250	> 7.5	> 500	> 8.5	> 700	> 9.0	> 800	> 11.5	> 1800
5.0-6.0	150-250	6.5-7.5	300-500	7.0-8.5	400-700	8.0-9.0	600-800	10.0-11.5	1200-1800
4.5-5.0	100-150	5.5-6.5	200-300	6.0-7.0	250-400	7.0-8.0	400-600	8.5-10.0	700-1200
3.5-4.5	50-100	4.5-5.5	100-200	5.0-6.0	150-250	5.5-7.0	200-400	7.0- 8.5	400- 700
< 3.5	< 50	< 4.5	< 100	< 5.0	< 150	< 5.5	< 200	< 7.0	< 400

Inset Figure 1.A: European Wind Resource at 50 metres above ground level. From the European Wind Atlas. Copyright © 1989 by Risø National Laboratory, Roskilde, Denmark

1.3. The Applicant/Developer

This application is made by Caplich WF Ltd, a project company of Muirhall Energy Ltd. Muirhall Energy is acting as the agent for this development. Muirhall Energy is referred to herein as 'the Developer'.

Muirhall Energy is an independent renewable energy company based in rural South Lanarkshire, situated less than a mile away from the operating Muirhall Wind Farm which gives the company a unique insight into the wind

⁴ Scottish Government 2011. 2020 Routemap for Renewable Energy in Scotland. Downloaded from URL: <http://www.scotland.gov.uk/Publications/2011/08/04110353/0> last downloaded 08.12.2014

farm at all stages of its lifecycle. The wind farm was first visualised in 2003 in response to an increasingly difficult economic reality experienced by the farming sector. Muirhall Energy has grown from this original development and now has a considerable project portfolio throughout Scotland.

Muirhall Energy employs 14 full time staff and recognises the employment opportunities which are generated through locally designed projects and has a commitment to benefitting those communities closest to the development. Such projects bring sustainable economic development to Scotland’s most rural communities and help to maintain rural populations. Empowering the local community is a central principle of the Muirhall Energy ethos. We truly believe that communities are the cornerstone to the success of every project and our neighbours should have the opportunity to share in the rewards. It is intended that the wind farm will be developed in partnership with local community groups and a share ownership in the wind farm company of up to 10% has been offered for groups to invest in.

Muirhall Energy recognises national targets for renewable energy generation and the contribution which wind energy projects make in tackling climate change and reducing Scotland’s dependence on fossil fuels.

1.4. The Environmental Statement

The application is the culmination of a three year programme of work by the Developer and its consultants, during which time the site’s suitability and detailed environmental interests have been assessed.

Muirhall Energy consists of a multidisciplinary team with over 40 years of experience, with qualifications to PhD level and Chartered Scientist, including expertise in rural planning, land surveying, environmental science, physics, geography, zoology and law. The Developers have project managed the EIA process and the production of the Environmental Statement (ES) and has brought together a specialist team to complete the individual studies. Specialist consultants who have knowledge, extensive experience and specific technical skills were contracted to complete the assessment to a high standard. The project environmental consultants are listed in **Table 1.1** and **Technical Appendix 1.1** provides outline biographies for the respective members of the consultancy team.

Table 1.1: The Consultancy Team

Environmental Assessment	Environmental Consultant
Planning Policy	Farningham Planning Ltd The Bourse, Suite 107, 47 Timber Bush Leith Edinburgh EH6 6QH
Landscape and Visual Impact Assessment & Site Design	Land Use Consultants Ltd 37 Otago Street Glasgow G12 8JJ

Socio-Economics, Tourism and Recreation	BiGGAR Economics Ltd Midlothian Innovation Centre Pentlandsfield Roslin Midlothian EH25 9RE
Environmental Assessment	Environmental Consultant
Ecology and Ornithology	Lead Ecologist: Cameron Ecology Ltd 9 Woodland Drive Dumpellier Coatbridge ML5 1LE PAT Modelling: Haworth Conversation Ltd Bunessan Isle of Mull PA67 6DU Bird & Protected Species Surveyors: ACE Surveyors The Mill Station Road Bridge of Allan FK9 4JS
Fisheries	Kyle of Sutherland Fisheries Trust Bank House Ardgay Sutherland IV24 3BG
Hydrology, Geology and Peat	Fluid Environmental Consulting Ltd 108/15 Great Junction St Edinburgh EH6 5LD
Carbon Balance, Peat Slide Risk Assessment and Borrow Pit Identification & Design	EnviroCentre Ltd Craighall Business Park 8 Eagle Street Glasgow G4 9XA
Cultural Heritage	AOC Archaeology Group Ltd Edgefield Industrial Estate Loanhead Midlothian EH20 9SY
Noise	Atmos Consulting Ltd Rosebery House 9 Haymarket Terrace Edinburgh EH12 5EZ

Traffic and Transport	WSP UK Ltd 7 Lochside View Edinburgh Park Edinburgh EH12 9DH
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The Environmental Impact Assessment (EIA) process is an iterative process of assessment and design. The final design of the project has been informed by the EIA process and a series of public consultation events to gather feedback from the local community. This refinement is in order to avoid, reduce or offset potential environmental effects associated with construction, operation and decommissioning. Appropriate mitigation measures are identified to minimise any potential impacts.

1.4.1. Structure of the ES

The ES incorporates the findings from the EIA and the written reports. It is the complete final document detailing all aspects of the wind farm development process and is submitted with the application for consent. The ES consists of five volumes:

- Volume 1 is the Non-Technical Summary (NTS), which sets out the main findings of the ES in an accessible format and written in plain English;
- Volume 2 is the Main Report and includes a description of the proposed development, presents the findings of the assessment of the likely significant environmental effects of the Development including measures to mitigate potentially negative impacts;
- Volume 3 presents the Landscape and Visual Impact Assessment Figures;
- Volume 4 contains the Technical Appendices to each chapter of the main report; and
- Volume 5 is a Confidential Annex used to keep environmentally sensitive information whose release would or could jeopardise the conservation status of a sensitive species as the release of that information would enable an individual to disturb the species.

Copies of the NTS are available to download from the Muirhall Energy website (www.muirhallenergy.co.uk) or a printed copy is available free of charge directly from the Developer upon request.

A stand-alone Planning Policy Statement has also been produced to accompany the application, although this is not part of this ES. The Planning Policy Statement evaluates the acceptability of the proposed development under the current Development Plan.

1.5. Preparation of the Environmental Statement

1.5.1. Stage 1 – The Scoping Process

The aim of the scoping process is to agree the methodology for environmental assessments. This process has involved contacting statutory and non-statutory bodies to inform them of the proposed wind farm and to request agreement on the assessment of environmental and technical constraints in the area surrounding the wind farm.

A number of organisations have been consulted on the proposed development as listed below:

- Scottish Government

- The Highland Council (various departments: Development Management; Development Planning; Landscape; Environmental Health; Harbours Authority; Roads; and Structures)
- Ardgay and District Community Council
- Assynt Community Council
- Creich Community Council
- Scottish Natural Heritage (SNH)
- Scottish Environment Protection Agency (SEPA)
- Forestry Commission Scotland
- Historic Scotland
- Association of Salmon Fishery Boards (ASFB)
- Kyle of Sutherland Fisheries Trust
- Marine Scotland
- Scottish Water
- RSPB Scotland
- Scottish Wildlife Trust
- Visit Scotland
- Mountaineering Council of Scotland
- British Horse Society
- Scottish Rights of Way and Access Society (ScotWays)
- Civil Aviation Authority (CAA)
- Defence Infrastructure Organisation, Ministry of Defence (MOD)
- NATS Safeguarding
- Highlands and Islands Airports
- BAA Aerodrome Safeguarding (Aberdeen)
- Ofcom
- BT
- Joint Radio Company
- Nuclear Safety Directorate (HSE)
- Transport Scotland

Detailed and extensive early consultations concentrated on the relevant consultees and involved discussions on the findings of the scoping process, in order to gain agreement on the extent and nature of the potential impacts, seek additional information and agree the specification for further survey work.

A Scoping Report was prepared and a formal Scoping Opinion was sought by the Developer from the Scottish Government in April 2014. The intention of the scoping exercise was to gain agreement from all key stakeholders on how the EIA should be undertaken, including the scope of issues to be addressed and the method of assessment to be used.

Scoping is a vital early step in the process and informs the EIA by identifying issues that are likely to be significant and eliminating those that are not. The responses to the consultations informed the Developers of which specific topics required further environmental assessment and the findings of which are provided in this ES. These topics include:

- Landscape and Visual Impact Assessment;
- Socio-Economics, Tourism and Recreation

- Ecology;
- Ornithology;
- Hydrology and Geology;
- Cultural Heritage;
- Noise; and
- Traffic and Transport.

1.5.2. Stage 2 – Baseline Surveys

This stage has identified the environmental conditions of the development site prior to development as judged by suitably qualified and professionally accredited experts within the consultancy team.

1.5.3. Stage 3 – Assessment of Effects

A defined methodology has been applied to predict the likely effects of the given proposal on the receiving environment. The effects have been evaluated to ascertain whether they will result in a ‘significant’ impact when considering the sensitivity of the receptor, magnitude of effect, and any proposed mitigation. The assessments have drawn upon existing literature, personal communications with local experts and on-site survey.

1.5.4. Stage 4 – Environmental Statement

The ES reports the findings from the EIA. It is the complete final document detailing all aspects of the studies undertaken and is submitted with the application for consent.

1.6. Assessment Methodology

To maintain consistency within the ES, a standard set of criteria has been defined for use throughout, unless stated otherwise. The intention of the system is to enable a common order of ‘magnitude’, ‘sensitivity’ and ‘significance’ to be applied to the effects of a proposal. The term ‘significance’ is used in the context of impacts and the following describes the methodology used to determine significance. This should be read in conjunction with the main text of the ES as this is a guide and is not exhaustive.

1.6.1. Methodology

The methodology has been applied in respect of the assessments undertaken.

Assessment criteria are required in order to evaluate environmental effects. Significance is generally determined through a combination of the sensitivity of a receptor to an effect and the magnitude of the change. This process is outlined below:

- Identification of baseline conditions of the site and its environs, including the sensitivity of receptors which may be affected by changes in the baseline conditions;
- Consideration of the magnitude of potential changes to the environmental baseline;
- Assessment of the significance of effect taking into account sensitivity of receptors and magnitude of effect;
- Identification of appropriate mitigation measures; and
- Assessment of significance of residual effects taking account of any mitigation measures.

The above approach does not however apply to all disciplines addressed in the ES, and where applicable, alternative approaches were therefore developed by external consultants as appropriate. These are clearly stated, described and justified in the relevant sections of the ES.

1.6.2. Baseline Conditions

The assessment of each environmental parameter was undertaken in comparison to baseline conditions. This describes the existing environmental conditions at the site and in the wider area as pertinent to the particular environmental parameter.

1.6.3. Assessment of Effect

1.6.3.1. Sensitivity/Importance of Receptors

The sensitivity of the baseline conditions was defined according to the relative importance of existing environmental features on or in the vicinity of the site, or by the sensitivity of receptors which would potentially be affected by the proposed development.

1.6.3.2. Magnitude of Effect

The magnitude of effects on environmental baseline conditions was identified through detailed consideration of the proposed development, with due recognition of any legislative or policy standards or guidelines, and the following factors:

- The degree to which the environment is affected, e.g. whether the quality is enhanced or impaired;
- The scale or degree of change from the existing situation;
- Whether the effect is temporary or permanent, indirect or direct, short term, medium term or long term;
- Any in-combination effects; and
- Potential cumulative effects.

Table 1.2: Definition of Magnitude

Level of Magnitude	Definition of Magnitude
High	Total loss or major alteration to key elements/ features/ characteristics of the baseline (pre-development) conditions such that post development character of baseline will be fundamentally changed.
Medium	Partial loss or alteration to one or more key elements/ features/ characteristics of the baseline (pre- development) conditions such that post development character/ composition/ attributes or baseline will be partially changed.
Low	Minor loss or alteration to one or more key elements/ features/ characteristics of the baseline (pre- development) conditions. Change arising from the loss/ alteration will be discernible but underlying character/ composition of the baseline condition will be similar to pre development circumstances / patterns.
Negligible	Very minor loss or alteration to one or more key elements/ features/ characteristics of the baseline (pre- development) conditions. Change barely distinguishable, approximating to the “no change” situation.

Determining the significance of environmental impacts involves value judgements and expert interpretation concerning environmental impacts.

1.6.3.3. Significance of Effects

The evaluation of the significance of an impact is important as it determines the resources that should be applied in avoiding or mitigating the impact, or the actual value of a positive impact. Furthermore, it is the combined significance of the various mitigated impacts that determines the overall environmental acceptability of the proposals.

The significance of effects that have been identified within this ES take into account all proposed mitigation, therefore are termed 'residual effects' as explained below.

Assumptions adopted in the evaluation of impacts are reported in the relevant sections. However, these assumptions are often implicit, relying on expert judgement. Where technical deficiencies are known, or it has been necessary to make assumptions, these are documented.

1.6.4. Mitigation

The approach to mitigation has the primary aim of minimising environmental effects through avoidance resulting in a minimum number of required remediation measures. The mitigation strategy followed is detailed in **Table 1.3**.

Mitigation has been considered as an integral part of the overall design strategy of the wind farm. The developers have adopted an iterative approach whereby mitigation has been assessed and considered at all stages of the project, and the final design of the wind farm has therefore evolved over the project life cycle, systematically being optimised in response to increasing knowledge of the site and potential environmental effects.

Table 1.3: Mitigation Strategy

Avoidance	Where viable the project has been redesigned to avoid impacts. This was achieved during the assessment of alternative sites and through the redesign of turbine layout to account for potential impacts to the communication links which cross the site.
Reduction	Reduction has been considered when all options for the avoidance of impacts have been exhausted, or deemed to be impractical. For example, by considering different access road alignments to reduce visual impact.
Remediation	Where adverse effects are unavoidable, consideration has been given to limit the level of impact by undertaking remedial work, for example through a commitment to rapid habitat restoration following completion of construction.
Compensation	Where the potential for avoiding and reducing impacts has been exhausted, consideration has been given to compensating for residual impacts to make the proposal more environmentally acceptable.
Enhancement	In addition to reducing any adverse impacts, consideration has been given to providing the opportunity for environmental improvement.

1.6.5. Residual Effects

Any remaining effects of the proposed development, following implementation of available mitigation measures are known as 'residual effects'. This assessment takes into account the mitigation as specified in the ES to identify the remaining (residual) effects with this mitigation implemented. The residual effects are discussed for each potential effect and a significance level identified.

1.6.6. Cumulative Effects

In accordance with the EIA regulations, the assessments will consider cumulative effects whereby the incremental effects of this development in combination with one or more existing or assumed developments is undertaken.

1.6.7. Summary

The effects of significance throughout this ES have been assessed under the above criteria unless stated otherwise in each section.

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9.1 Introduction

This chapter comprises a Cultural Heritage Environmental Impact Assessment for the proposed wind farm on land at Caplich to the north of the A837 between Rosehall and Ledmore Junction, Sutherland. The site lies within the local authority area of The Highland Council, which is advised on all archaeological and cultural heritage matters by the Highland Council Historic Environment Team.

This assessment is based on an examination of all publicly available data, including aerial photographic evidence, and is supplemented by a detailed walkover survey of the application site. Cultural heritage assets within 1 km of the proposed wind farm boundary, and Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory Gardens and Designed Landscapes, Inventory Battlefields and non-statutory monuments of national importance (as identified by the Highland Council Historic Environment Team) at distances up to 5 km away (but also including a group of Scheduled Monuments within Glen Oykel, some of which are located just beyond 5km), which might be subject to impacts upon their settings, are identified in this report. The potential for impacts, both direct and indirect, on cultural heritage assets are identified. The assessment concludes by formulating strategies to mitigate any impacts.

In their scoping response, Historic Scotland requested that the potential for the proposal to impact upon the settings of several designated assets be considered. In particular, Historic Scotland requested assessments of: Creich Broch 1600 m NW of, Glen Cassley (Scheduled Monument Index No. 1852) (**Site 1**), located 4.5 km north-east of the turbine area; Langwell, fort and dun 500 m WSW of (Scheduled Monument Index No. 5302) (**Site 13**), located 5.0 km south-east of the proposed turbine area, and Scheduled Monuments in the vicinity of Glen Oykel, located between 4 and 6.5 km to the north-west of the proposed wind farm.

The proposed development area is located within the historic county of Sutherland and is centred at NC 3696 0634, with the access track entry at NC 4310 0118. The proposed development site will be accessed from the A837 near Tuiteam Tarbhach to the south, using an existing track crossing rising ground through coniferous plantation. The area proposed for turbine development comprises open hilly rolling moorland with summits including Beinn an Eoin Bheag to the east (372 m AOD) and a minor summit of Beinn an Eoin to the north-east (429 m AOD).

This assessment has identified six cultural heritage sites of prehistoric, post-medieval and modern date within the development site, in particular in proximity to the access track. These features include 20th century quarry remains and a walkers' cairn of essentially No Cultural Heritage Value; post-medieval quarrying, road and agricultural remains of Negligible Cultural Heritage Value and a prehistoric field system with hut circles of potentially Regional Cultural Heritage Value (**Site 27**).

Impact assessment has indicated the possibility for direct impacts of potentially *Minor* significance upon the prehistoric hut circles and field system remains at Strath Oykel (**Site 27**). The remains of two hut circles (**Sites 27.1 & 27.3**) and a clearance cairn (**Site 27.4**) are located adjacent to the route of the proposed access track, which follows an existing forestry track. These remains will be avoided, however, through the design of the access track, with any additional track construction being located on the opposite edges of the track to recorded remains. While there exists the potential for the loss of a small percentage of the heritage asset's peripheral deposits, this would be at worst an impact of Marginal magnitude and *Minor* significance, and therefore not significant in terms of EIA regulations. Where feasible, the visible elements of **Site 27** will be fenced off with a buffer during construction to avoid accidental damage by heavy plant movement. In areas in the vicinity of **Site 27** where the access track construction involves widening of the existing track, e.g. for passing places, prior to groundworks,

intrusive and/or non-intrusive evaluation may be required to be undertaken to identify and record potential sub-surface archaeological deposits and features.

Design works have led to the avoidance of a sheepfold at Allt a' Choire Bhuidhe (**Site 33**) and a possible clearance cairn at Strath Oykel (**Site 47**). However, the latter of these heritage assets should be fenced off to avoid inadvertent damage by plant. As works at the entrance to the access track are likely to cause only minimal impacts to peripheral remains of the late post-medieval road, and associated quarrying, that preceded the A837 (**Site 32**) it is not considered that specific mitigation works are required.

Given the largely peat-covered nature of the ground proposed for development and the identification of known prehistoric and post-medieval sites within the vicinity, there is a possibility of encountering hitherto unknown buried archaeological remains during groundbreaking works associated with the development, in particular near the southern end of the access route. Further evaluation or mitigation works may therefore be required by the planning authority. For example, an archaeological evaluation and/or watching brief on a proportion of groundbreaking works may be required by the local planning authority. The purpose of such works would be to identify any archaeological remains which could be impacted by the development, to assess their significance and to mitigate any such impact upon them either through avoidance or, if preservation *in situ* is not warranted, through preservation by record. It is possible that evaluation works may lead on to further works such as excavation and post-excavation analyses.

Indirect impacts include impacts upon the settings of designated assets such as Listed Buildings, Scheduled Monuments, Conservation Areas, Inventoried Battlefields and Inventoried Gardens and Designed Landscapes. Impacts upon setting are a statutory consideration.

No Listed Buildings, Conservation Areas, Inventoried Gardens, Inventoried Battlefields or Scheduled Monuments are located within the boundaries of the proposed development site. This assessment has identified eleven Scheduled Monuments within 5 km of the proposed wind farm and within a group that extends slightly further to the north-west, within Glen Oykel. Additionally, seven Listed Buildings and one site identified by the Highland Council Historic Environment Team as being of potentially National Importance can be found within 5 km of the proposed wind farm.

No significant impacts, in terms of EIA regulations, on the settings of monuments have been identified. This assessment has indicated potential impacts of *Minor* significance on the settings of Langwell, fort and dun 500 m WSW of (**Site 13**) and of four Scheduled Monuments in Glen Oykel (**Sites 9, 11, 14 & 18**). Various additional *Negligible* impacts are predicted upon the settings of designated heritage assets within the study area. As per Table 9.6, these effects would not be considered significant. Additionally, cumulative *Minor* impacts are also possible on the settings of Langwell, fort and dun 500 m WSW of (**Site 13**) and of four Scheduled Monuments in Glen Oykel (**Sites 9, 11, 14 & 18**). It should also be noted that the Caplich turbines would be located at a significant distance from these monuments, and would not affect their close setting. Thus the close settings of the monuments would remain unaltered by the proposed Wind Farm.

Additionally, impacts upon the setting of these monuments are limited to the 25 year operational period of the wind farm, these impacts are reversible.

9.2 Development Background

9.2.1 Development Site

The proposed development area is located at Caplich to the north of the A837 between Rosehall and Ledmore Junction, Sutherland. The village of Rosehall is located approximately 4 km to the east of the proposed site entrance and 9.5km from the nearest turbine, while Oykel Bridge is located approximately 4.7km south of the nearest turbine. Located within the historic county of Sutherland, the site now lies within the administrative authority of The Highland Council. The proposed turbine site centre is at NC 3696 0634, with the access track entry site at NC 4310 0118. The proposed development site will be accessed from the A837 near Tuiteam Tarbhach to the south, using an existing track which crosses rising ground through coniferous plantation. The area proposed for turbine development comprises open moorland with summits including Beinn an Eoin Bheag to the east (372 m AOD) and a minor summit of Beinn an Eoin to the north-east (429 m AOD).

9.2.2 Development Proposal

Muirhall Energy Ltd proposes a Wind Farm development at Caplich, to the north of the A837 between Rosehall and Ledmore Junction, Sutherland. Twenty wind turbines, with a blade tip height of 132 m are proposed, arranged within an envelope in the north-west of the site (Figure 9.1). The wind turbines will require a variety of ancillary works and installations, which will include access tracks; crane pads; a sub-station; interconnecting cables between turbines and the sub-station building; grid connection to the power transmission network and temporary areas to facilitate construction.

9.2.3 Government and Local Planning Policies

9.2.3.1 National Planning Policy Guidelines

The statutory framework for heritage in Scotland is outlined in the Town and Country Planning (Scotland) Act 1997¹, as amended in the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997² and the Ancient Monuments and Areas Act 1979³ both of which are modified by the Historic Environment (Amendment) (Scotland) Act 2011⁴.

The implications of these Acts, with regard to local government planning policy, are described within Scottish Planning Policy (SPP)⁵, Scottish Historic Environment Policy⁶ and Planning Advice Notes (PAN) for Scotland. SPP, SHEP 'Scottish Historic Environment Policy' and PAN 2/2011 'Archaeology and Planning'⁷ deal specifically with planning policy in relation to heritage. The planning guidance expresses a general presumption in favour of preserving heritage remains *in situ*. Their 'preservation by record' (i.e. through excavation and recording, followed by analysis and publication, by qualified archaeologists) is a less desirable alternative. SPP expresses the following policy principles:

'The planning system should:

- promote the care and protection of the designated and non-designated historic environment (including individual assets, related settings and the wider cultural landscape) and its contribution to sense of place, cultural identity, social well-being, economic growth, civic participation and lifelong learning; and
- enable positive change in the historic environment which is informed by a clear understanding of the importance of the heritage assets affected and ensure their future use. Change should be sensitively managed to avoid or minimise adverse impacts on the fabric and setting of the asset, and ensure that its special characteristics are protected, conserved or enhanced⁸.

SHEP sets out the Scottish Executive's policy for the sustainable management of the historic environment. Key principles of the policy note that 'there should be a presumption in favour of preservation of individual historic assets and also the pattern of the wider historic environment; no historic asset should be lost or radically changed without adequate consideration of its significance and of all the means available to manage and conserve it'⁹ (1.14.b).

9.2.3.2 The Highland Wide Local Development Plan

The Highland Wide Local Development Plan¹⁰ replaced the Highland Structure Plan (2001)¹¹ on the 5th of April 2012 and updates and supersedes the General Policies and other related material of the Sutherland Local Plan (2010)¹². Policy 57 of the Highland Wide Local Development Plan pertains to archaeological or cultural heritage issues:

Policy 57 Natural, Built and Cultural Heritage

All development proposals will be assessed taking into account the level of importance and type of heritage features, the form and scale of the development and any impact on the feature and its setting, in the context of the policy framework detailed in Appendix 2. The following criteria will also apply:

1. For features of **local/regional** importance we will allow developments if it can be satisfactorily demonstrated that they will not have an unacceptable impact on the natural environment, amenity and heritage resource.
2. For features of **national** importance we will allow developments that can be shown not to compromise the natural environment, amenity and heritage resource. Where there may be any significant adverse effects, these must be clearly outweighed by social or economic benefits of national importance. It must also be shown that the development will support communities in fragile areas who are having difficulties in keeping their population and services.
3. For features of **international** importance developments likely to have a significant effect on a site, either alone or in combination with other plans or projects, and which are not directly connected with or necessary to the management of the site for nature conservation will be subject to an appropriate assessment. Where we are unable to ascertain that a proposal will not adversely affect the integrity of a site, we will only allow development if there is no alternative solution and there are imperative reasons of overriding public interest, including those of

¹ HMSO 1997 Town and Country Planning (Scotland) Act 1997.

² HMSO 1997a Planning (Listed Buildings and Conservation Areas (Scotland)) Act 1997.

³ HMSO 1979 The Ancient Monuments and Archaeological Areas Act 1979.

⁴ HMSO 2011 Historic Environment (Amendment)(Scotland) Act 2011.

⁵ Scottish Government 2014 SPP Scottish Planning Policy.

⁶ Historic Scotland 2011 Scottish Historic Environment Policy (SHEP).

⁷ Scottish Government 2011 PAN2/2011 Planning and Archaeology.

⁸ Scottish Government 2014 SPP Scottish Planning Policy, Paragraph 137.

⁹ Historic Scotland 2011 Scottish Historic Environment Policy (SHEP), 1.14.b.

¹⁰ Highland Council 2012 Highland Wide Local Development Plan.

¹¹ Highland Council 2001 Highland Council Structure Plan.

¹² Highland Council 2010 Sutherland Local Plan.

a social or economic nature. Where a priority habitat or species (as defined in Annex 1 of the Habitats Directive) would be affected, development in such circumstances will only be allowed if the reasons for overriding public interest relate to human health, public safety, beneficial consequences of primary importance for the environment, or other reasons subject to the opinion of the European Commission (via Scottish Ministers). Where we are unable to ascertain that a proposal will not adversely affect the integrity of a site, the proposal will not be in accordance with the development plan within the meaning of Section 25(1) of the Town and Country Planning (Scotland) Act 1997.

Note: Whilst Appendix 2 groups features under the headings international, national and local/regional importance, this does not suggest that the relevant policy framework will be any less rigorously applied. This policy should also be read in conjunction with the Proposal Map...

In due course the Council... intends to adopt the Supplementary Guidance [See 2.3.3] on the Highland Historic Environment Strategy. The main principles of this guidance will ensure that:

- Future developments take account of the historic environment and that they are of a design and quality to enhance the historic environment bringing both economic and social benefits;
- It sets a proactive, consistent approach to the protection of the historic environment.'

Supplementary Planning Guidance (SPG) on Historic Environment Strategy¹³ was adopted by Highland Council in January 2013. This supplementary guidance is intended to compliment Policy 57 of the adopted Highland Wide Local Development Plan (2012). The SPG lays out 34 strategic aims for the Historic Environment of which 16 are relevant to this application:

'Strategic Aim 1:

To ensure that future management strategies, proposals and decisions affecting the historic environment are based on a thorough understanding of the special features of the heritage assets and associated archaeology, history and architecture of the Scottish Highlands.

Strategic Aim 2:

To ensure that the historic environment is enhanced, protected and promoted and is recognised as the foundation for encouraging high quality and appropriate development to meet the future social and economic needs of the local communities within the Highlands.

Strategic Aim 3:

To ensure that the historic environment is recognised as a key driver for economic growth and regeneration.

Strategic Aim 6:

That listed buildings within Highland are protected from harmful developments, including extension and alteration, which may affect their special architectural and historic interest or their setting and that there is a presumption against the demolition of listed buildings.

¹³ Highland Council 2013 *The Highland Council Supplementary Guidance: Historic Environment Strategy (Version that is recommended to the Planning, Environment and Development Committee (16 January 2013) to be statutorily adopted and issued).*

Strategic Aim 13:

That scheduled monuments - and their setting - within Highland are protected from harmful developments which may affect their national importance.

Strategic Aim 14:

That all designed landscapes within Highland are protected from harmful developments which may affect their integrity.

Strategic Aim 15:

That nationally important battlefields are recognised in the development planning process and to ensure that impacts upon them are a material consideration in development management.

Strategic Aim 16:

To ensure that the importance of non-designated archaeological sites and landscapes and their settings are understood and wherever possible are protected from harmful developments.

Strategic Aim 17:

To ensure no asset or its setting is lost or altered without adequate consideration of its significance and of the means available to preserve, record and interpret it in line with national and local policy and Highland Council's Standards for Archaeological Work.

Strategic Aim 25:

To record, protect, promote and seek improvement for all natural features which make a valuable contribution to the historic environment.

Strategic Aim 26:

To ensure that management of the historic environment is based on considered judgement of how best to protect and enhance its importance and value.

Strategic Aim 27:

To promote and advocate best practice in heritage protection in the Highlands through the planning process.

Strategic Aim 29:

To ensure that both local and national policy for the conservation and preservation of the historic environment is implemented through the development management process.

Strategic Aim 30:

To ensure that new development is sensitive to the historic environment and responds to and reflects the established qualities of the surroundings.

Strategic Aim 33:

To ensure that proposed new developments have due regard to the archaeological, historical and cultural significance of all aspects of the local environment.

Strategic Aim 34:

To ensure that through the development management process appropriate measures of intervention are taken to protect the historic environment from harmful changes and inappropriate developments.'

9.2.3.3 Emerging Policy: The Caithness and Sutherland Local Development Plan

The Highland Council is in the process of producing a new style local development plan for Caithness and Sutherland: the *Caithness and Sutherland Local Development Plan*. Once formally adopted, it will replace the existing Sutherland Local Plan (2010).

9.2.3.4 Planning Considerations Pertaining to the Site

The Local Planning Authority is advised on all archaeological and built heritage matters by the Highland Council Historic Environment Team.

The setting of Listed Buildings is a competent planning matter; **Section 14.2** of the Planning (Listed Buildings and Conservation Areas) Act 1997 states that when determining applications for development which could impact upon the setting of a listed building:

'...the planning authority or the Secretary of State, as the case may be, shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses'¹⁴.

A new development must not impact upon the area of a Scheduled Monument without the prior formal consent of Historic Scotland. A development may not have a direct, i.e. physical, impact upon a Scheduled Monument without Scheduled Monument Consent. The setting of Scheduled Monuments is also a key consideration when determining planning applications. This principle is outlined in Scottish Planning Policy Paragraph 145:

'Where there is potential for a proposed development to have an adverse effect on a scheduled monument or on the integrity of its setting, permission should only be granted where there are exceptional circumstances. Where a proposal would have a direct impact on a scheduled monument, the written consent of Scottish Ministers via a separate process is required in addition to any other consents required for the development'¹⁵.

Paragraph 141 of Scottish Planning Policy notes the importance of preserving the settings of Listed Buildings, stating that *'The layout, design, materials, scale, siting and use of any development which will affect a listed building or its setting should be appropriate to the character and appearance of the building and setting. Listed buildings should be protected from demolition or other work that would adversely affect it or its setting'¹⁶.*

9.2.3.5 Scoping and Consultee Responses

In its scoping opinion of 24th June, the Scottish Government Energy Consents and Deployment Unit stated that, *'The ES should address the predicted impacts on the historic environment and describe the mitigation proposed to avoid or reduce impacts to a level where they are not significant. Historic environment issues should be taken into*

consideration from the start of the site selection process and as part of the alternatives considered'¹⁷. In an attached annex of consultee comments, The Highland Council Planning Authority noted that:

'The cultural heritage chapter will be informed by a detailed walkover survey of the development area (including any land required for associated infrastructure).

Where indirect impacts are predicted, these will be illustrated using photomontages. Cumulative visual impacts, including existing and proposed wind farm development in the wider area (where applicable), must be taken into consideration and assessed in this case.

Where impacts are unavoidable, HET expect proposed methods to mitigate this impact to be discussed in detail, including both physical (i.e. re-design) and where appropriate, compensatory and off-setting. Areas subject to survey must be clearly marked on a map. The assessment will consider the potential direct impacts of the development to cultural heritage as well as indirect impacts. The indirect impact assessment will need to include a study of cumulative impacts. Where indirect impacts are predicted, these will be illustrated using photomontages in line with Highland Council visualisation standards'¹⁸.

Additionally, Historic Scotland stated:

'While we can confirm that there are no nationally important heritage assets within the boundary of the proposed development, there are some that lie in its vicinity. Our initial assessment indicates that the setting of these assets could be impacted upon. We note from the report submitted with the request for a scoping opinion that the need to consider the magnitude of these indirect impacts and potential mitigation measures is recognised. We are content with the proposed methodology and we advise that any future assessments forming part of the EIA are undertaken by a suitably qualified archaeological consultant. Particular attention should be given to assessing the following scheduled monuments (please bear in mind that the list of assets is not exhaustive):

- *Creich, broch 1600m NW of, Glen Cassley (Index No. 1852)*
- *Langwell, fort and dun 500m WSW of (Index No. 5302)*
- *Scheduled monuments situated in the vicinity of the Glen Oykel.*

We would recommend that visualisations are produced from the above monuments showing the views towards the proposed development. With regards to the monuments in the Glen Oykel area, only the sites that fall within the ZTV and are likely to be significantly impacted upon could be selected.

Cumulative impact of this development together with others in the vicinity may be an issue, and we would encourage that this is assessed as part of a forthcoming ES.

Once further information about the proposal is available and the visualisations recommended above have been produced we would be able to make an informed assessment of the scale of impacts and discuss the scope of any mitigation required. We would be happy to discuss this at any time prior to application'¹⁹.

9.3 Aims and Objectives

The aim of this assessment is to identify the archaeological and cultural heritage value of land proposed for wind farm development at Caplich to the north of the A837 between Rosehall and Ledmore, Sutherland, Highland and

¹⁴ HMSO, 1997a *Planning (Listed Buildings and Conservation Areas (Scotland)) Act 1997*, Section 14.2.

¹⁵ Scottish Government 2014 *SPP Scottish Planning Policy*, Paragraph 145.

¹⁶ Scottish Government 2014 *SPP Scottish Planning Policy*, Paragraph 141.

¹⁷ Scottish Government Energy Consents and Deployment Unit 2014 *Scoping Opinion: Caplich Wind Farm*, 28.

¹⁸ Scottish Government Energy Consents and Deployment Unit 2014 *Scoping Opinion: Caplich Wind Farm*, 42.

¹⁹ Scottish Government Energy Consents and Deployment Unit 2014 *Scoping Opinion: Caplich Wind Farm*, page 60.

the potential Direct and Indirect Impacts of the proposed development on sites, monuments and other cultural heritage assets located both within the development site, and in the case of designated assets within a 5 km radius of it (extending slightly further to the north-west to incorporate a group of Scheduled Monuments within Glen Oykel). In order to achieve this objective, archaeological sites and monuments recorded both within the proposed development boundary and within a 1 km radius of this boundary, and Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory Gardens and Designed Landscapes and Inventory Battlefields at distances up to 5 km away (and within a group of monuments in Glen Oykel to the north-west), which might be subject to impacts upon their settings, have been identified.

In its scoping response, Historic Scotland requested that the potential for the proposal to impact upon the settings of several designated assets be considered. In particular, Historic Scotland requested assessments of: Creich Broch 1600 m NW of, Glen Cassley (Scheduled Monument Index No. 1852) (**Site 1**), located 4.5 km north-east of the turbine area; Langwell, fort and dun 500 m WSW of (Scheduled Monument Index No. 5302) (**Site 13**), located 5.0 km south-east of the proposed turbine area, and Scheduled Monuments in the vicinity of Glen Oykel, located between 4 and 6.5 km to the north-west of the proposed Wind Farm. Additionally, the Highland Council Historic Environment Team identified a single asset of potential National Importance, the site of Chapel and Graveyard, Achness (**Site 44**) within 5 km of the proposed development.

9.3.1 Limitations of Scope

This assessment is based upon data obtained from publicly accessible archives as described in the Data Sources in **Section 9.5.2**, a walkover survey, ZTV mapping and visualisation provided by the client.

9.4 Methodology

9.4.1 Standards

The scope of this assessment meets the requirements of current planning regulations set out in SPP²⁰, SHEP²¹ and PAN2/2011²². It also follows Highland Council Standards for Archaeological Work, including Chapter 4, which covers Environmental Statements²³. This assessment conforms to IfA Standards and Guidance for Desk Based Assessments, Field Evaluations etc²⁴.

9.4.2 Data Sources

The following data sources were consulted during preparation of this assessment:

- National Monuments Record for Scotland (NMRS) (RCAHMS, Bernard Terrace, Edinburgh):

For NMRS data, aerial photographs, archive photographs, NMRS maps, various archaeological and historical publications, and unpublished archaeological reports;

- National Map Library (National Library of Scotland, Causewayside, Edinburgh):

For old Ordnance Survey maps (1st & 2nd Edition, small- and large-scale) and pre-Ordnance Survey historical maps;

- Historic Scotland (Longmore House, Salisbury Place, Edinburgh):

For Scheduled Monument data, Listed Buildings data and Inventory Garden and Designed Landscape data;

- The Highland Council Historic Environment Team:

For Historic Environment Record data.

9.4.3 Report Structure

Each heritage asset referred to in the text is listed in the Gazetteer in **Technical Appendix 9.1**. Each has been assigned a 'Site No.' unique to this assessment, and the Gazetteer includes information regarding the type, period, grid reference, NMRS number, HER number, statutory protective designation, and other descriptive information, as derived from the consulted sources. Factors which define a monument's Setting, Cultural Value, Visual Sensitivity, Aesthetics and Contemporary Appreciation are made clear in **Technical Appendix 9.1**. **Technical Appendix 9.2** contains plates illustrating the report.

Each heritage asset, including archaeological or historical sites, monuments or buildings, referred to in the text is plotted on the location maps (**Figures 9.1 and 9.2**) at the end of the report, using the assigned Site Nos. The proposed development site is outlined in red.

All known heritage assets located within a 1 km radius from the edge of the proposed Wind Farm development area have been included in the assessment. The aim of this is to help predict whether any similar hitherto unknown archaeological remains are likely to be impacted by the development. In addition, Scheduled Monuments, Listed Buildings, Conservation Areas, Inventory Gardens and Designed Landscapes, Inventory Battlefields and non-statutory monuments of national importance (as identified by the Highland Council HER) at distances up to 5 km away, which might be subject to impacts upon their settings, have also been identified. Figure 9.1 records archaeological remains and cultural heritage assets located within a 1 km assessment area surrounding the development site, while **Figure 9.2** shows designated heritage assets within 5 km of the proposed Wind Farm.

All sources consulted during the assessment, including publications, archived records, photographic and cartographic evidence, are listed in the Bibliography at the end of this report.

9.4.4 Impact Assessment Methodology

This Environmental Impact Assessment has been prepared using the following methodology which conforms to the accepted professional standards.

9.4.4.1 Direct Impacts

Establishing Cultural Significance

The rating of importance of the culture heritage assets within the proposed development area has been guided by criteria used by Historic Scotland for scheduling monuments and classifying listed buildings. Monuments are generally considered for scheduling based upon factors such as age, rarity, condition and archaeological context, while listed buildings are designated and categorised based upon similar criteria as well as technical innovation/virtuosity, architectural design and associations with well-known architects, historical persons or events. In some cases, a site or building which does not have a protective designation assigned to it could

²⁰ Scottish Government 2014 *SPP Scottish Planning Policy*.

²¹ Historic Scotland 2011 *Scottish Historic Environment Policy (SHEP)*.

²² Scottish Government 2011 *PAN2/2011 Planning and Archaeology*.

²³ Highland Council 2012 *Standards for Archaeological Work*.

²⁴ Institute for Archaeologists 1994-5 Institute for Archaeologists (IfA) Standards and Guidance for Desk Based Assessments, Field Evaluations, etc.

nonetheless still be rated as having the same importance as another one which is protected. This is because the selection of items for listing and scheduling is an ongoing national activity. Generally, the criteria for judging the level of heritage significance are gradually evolving, with an increasing trend towards including more recent types of structures. In some cases, important heritage assets may have been overlooked during the designation process, or could now be judged worthy of designation, whereas they were not previously.

The criteria used to rate importance of heritage assets in the proposed development area are presented in **Table 9.1** below.

Table 9.1: Criteria for Establishing Relative Importance of Heritage Assets

Importance	Criteria
International and National	World Heritage Sites; or Iconic Sites and Monuments; or Scheduled Monuments (Actual and Potential); or Category A Listed Buildings; or Inventory Gardens and Designed Landscapes; or Inventory Battlefields; or Remains of national or international importance, or fine, little-altered examples of some particular period, style or type.
Regional	Category B Listed Buildings; or Conservation Areas; or Remains of regional or more than local importance, or major examples of some period, style or type, which may have been altered; or Remains of national importance that have been partially damaged.
Local	Category C Listed Buildings; or Remains of local importance, lesser examples of any period, style or type, as originally constructed or altered, and simple, traditional sites, which group well with other significant remains, or are part of a planned group such as an estate or an industrial complex; or Cropmarks of indeterminate origin; or Remains of regional importance that have been partially damaged or remains of national importance that have been largely damaged.
Negligible	Relatively numerous types of remains, of some local importance; or Findspots of artefacts that have no definite archaeological remains known in their context; or Remains of local importance that have been largely damaged;

Importance	Criteria
	or Isolated findspots; or Undesignated structures.

Establishing Magnitude of Impact

The magnitude of the physical impact upon heritage assets caused by the development has been rated using the classifications and criteria outlined in **Table 9.2** below.

Table 9.2: Criteria for Classifying Magnitude of Physical Impact

Magnitude	Criteria
High	Major loss of information content resulting from total or large-scale removal of deposits from a site whether or not the site is associated with a monument; Major alteration of a monument’s baseline condition; Any physical alteration to a Scheduled Monument; Any physical alteration to a Category A Listed Building; Massive alterations to a Category B or Category C Listed Building.
Medium	Moderate loss of information content resulting from material alteration of the baseline conditions by removal of part of a site whether or not the site is associated with a monument; Slight alteration of a monument’s baseline condition
Low	Minor detectable impacts leading to the loss of information content; Minor alterations to the baseline condition of a monument.
Marginal	Very slight or barely measurable loss of information content; Loss of a small percentage of the area of a site’s peripheral deposits; Very slight and reversible alterations to a monument.
None	No physical impact anticipated.

Establishing Significance of Impact

The predicted significance of impact upon each asset was determined by considering its importance in conjunction with the magnitude of impact predicted on it. The method of deriving the significance of impact classifications is shown in Table 9.3 below:

Table 9.3: Method of Rating Significance of Impact on Heritage Assets by the Proposed Development

Magnitude of Impact	Importance of Heritage Asset				
	Negligible	Local	Regional	National	International
High	Minor-to-Moderate	Moderate	Moderate-to-Major	Major	Extreme
Medium	Minor	Minor-to-Moderate	Moderate	Moderate-to-Major	Major
Low	Negligible	Minor	Minor-to-Moderate	Moderate	Moderate-to-Major
Marginal	Negligible	Negligible	Minor	Minor-to-Moderate	Moderate
None	None	None	None	None	None

The impacts recorded in grey highlighted cells are 'significant' in terms of the Electricity Works (EIA) (Scotland) Regulations 2000²⁵.

9.4.4.2 Indirect Impacts

Establishing Sensitivity of Assets

The predicted significance of visual impact upon the settings of Scheduled Monuments, Listed Buildings and other statutory monuments and non-statutory monuments of national importance was determined by considering the asset's relative visual sensitivity, taking into consideration its cultural value, in conjunction with the magnitude of visual impact predicted on it. The method of establishing relative visual sensitivity is outlined in **Table 9.4** below.

Table 9.4: Criteria for Establishing Relative Visual Sensitivity

Sensitivity*	Definition
High	A monument which retains an overtly intended or authentic relationship with its visual setting and the surrounding landscape. In particular ritual monuments which have constructed sightlines to and/or from them or structures intended to be visually dominant within a wide landscape area i.e. castles, tower houses, prominent forts etc. A monument, the current understanding of which, relies heavily on its modern aesthetic setting regardless of whether or not this was intended by the original constructors or authentic users of the monument.
Medium	A monument which had overtly intended authentic relationship with its visual setting and the surrounding landscape but where that relationship has been moderately compromised either by previous modern intrusion affecting the setting or landscape or whereby the monument itself is in such a state of disrepair that the relationship cannot be fully determined. A monument, the current understanding of which, relies partially on its modern aesthetic setting regardless of whether or not this was intended by the original constructors or authentic users of the monument.
Low	A monument which had an overtly intended authentic relationship with its visual setting and the surrounding landscape but where that relationship has been

²⁵ Scottish Executive 2000 *Electricity Works (EIA) (Scotland) Regulations 2000*.

Sensitivity*	Definition
	significantly compromised either by previous modern intrusion to the setting or landscape or whereby the monument itself is in such a state of disrepair that the relationship cannot be determined. A monument whose placement within the landscape was not determined by visual setting but by some other factor whether that be industrial, agricultural or simply functional etc.**
Marginal	A monument whose placement within the landscape was not determined by visual setting but by some other factor whether that be industrial, agricultural or simply functional etc; and is additionally in such a state of disrepair that its relationship to its setting cannot be determined.
None	A site whose remains are located fully below the current ground surface (i.e. crop mark sites), and subsequently for which neither the full extent nor significance of the site itself nor its setting can be determined without intrusive archaeological investigation.

* Note that the determination of a monument's sensitivity is first and foremost reliant upon the determination of its setting; i.e. a country house may have a high sensitivity within its own landscaped park or garden but its level of sensitivity to change may be less when considered within the wider landscape area.

**While the immediate setting of such monuments is clearly significant, their relationship to the wider landscape is less sensitive to visual change. Where the immediate setting of such sites is to be impacted by development this will be taken into consideration.

Establishing Magnitude of Impact

The method of classifying the magnitude of visual impact is shown in **Table 9.5** below.

Table 9.5: Criteria for Classifying Magnitude of Visual Impact

Visual Impact	Criteria
High	Direct and substantial visual impact on a significant sightline to or from a ritual monument or prominent fort; Direct severance of the relationship between a monument and its setting where that monument has a Low, Medium or High visual sensitivity; Major alteration to the penumbral or close settings of a Scheduled Monument; Major visual imposition within a Cultural Landscape; Major visual imposition within or affecting an Iconic Site or Monument.
Medium	Oblique visual impact on an axis adjacent to a significant sightline to or from a ritual monument but where the significant sightline of the monument is not obscured; Major visual imposition affecting glaxis of a prominent fort (based on the proportion of the glaxis that would be obscured); Partial severance of the relationship between a monument and its setting where that monument has a Low, Medium or High visual sensitivity;

Visual Impact	Criteria
	Significant alteration to the setting of a Scheduled Monument of Medium to High visual sensitivity or significant alteration to the setting of a Category A, B or C Listed Building of Medium to High visual sensitivity beyond those elements of the setting which directly contribute to the understanding of the cultural value of the monument; Significant but not major visual imposition within a Cultural Landscape.
Low	Peripheral visual impact on a significant sightline to or from a ritual monument; Insignificant alteration to the setting of a Scheduled Monument of Medium to High visual sensitivity or insignificant alteration to the setting of a Category A, B or C Listed Building of Medium to High visual sensitivity beyond those elements of the setting which directly contribute to the understanding of the cultural value of the monument; Minor visual imposition with a Cultural Landscape.
Marginal	All other visual impacts.
None	No intervisibility.

Establishing Significance of Impact

The predicted significance of visual impact upon the setting of each monument was determined by considering its visual sensitivity, taking cognisance of its cultural significance, in conjunction with the magnitude of visual impact predicted on it. The method of deriving the significance of impact classifications is shown in **Table 9.6** below.

Table 9.6: Method of Rating Significance of Impact on Heritage Assets by the Proposed Development

Magnitude of Impact	Relative Visual Sensitivity			
	Marginal	Low	Medium	High
High	Minor	Minor-to-Moderate	Moderate	Major
Medium	Negligible	Minor	Minor-to-Moderate	Moderate
Low	None/Negligible	Negligible	Minor	Minor-to-Moderate
Marginal	None	None	Negligible	Minor

The impacts recorded in grey highlighted cells are 'significant' in terms of the Electricity Works (EIA) (Scotland) Regulations 2000²⁶.

The assessment of the significance of impact by the development is based upon plans and ZTV data and site visits.

9.4.5 Walkover Survey

Walkover survey of the development site was undertaken by AOC in April 2014 in order to relate the existing landscape to research findings and to identify possible hitherto unrecorded heritage assets. The whole site was systematically surveyed and a photographic record was maintained of all previously recorded and newly

²⁶ Scottish Executive 2000 *Electricity Works (EIA) (Scotland) Regulations 2000*.

identified heritage assets within the development site. A hand-held GPS was used to note the position of any surviving previously unrecorded remains on the site.

9.5 Archaeological and Historical Baseline

9.5.1 Context

The site of the proposed Caplich wind farm is currently occupied by open moorland with summits including Beinn an Eoin Bheag to the east (372 m AOD) and a minor summit of Beinn an Eoin to the north-east (429 m AOD). Several watercourses cross the area, most significantly the Allt Rugaidh Bheag in the south of the proposed turbine area, where two lochans are present. The proposed development site will be accessed from the A837 near Tuiteam Tarbhach to the south, using an existing track which crosses rising ground through coniferous plantation. Aerial photographic evidence indicates that the site has been largely covered by open moorland since the mid-20th century and that preparations for the planting of the coniferous plantation that surrounds much of the proposed access track (itself a forestry track) was undertaken in the 1980s.

9.5.2 Prehistoric (pre-AD43)

At the south end of the proposed access track, remains of hut circles and an associated field system including scattered clearance heaps are recorded at Strath Oykel (**Site 27**). Several prehistoric heritage assets are recorded within c.1 km of the proposed development site. To the south-west of the proposed access track a Neolithic cairn is recorded at Strath Oykel (**Site 22**), while a hut circle associated with clearance heaps is recorded at Garbh Leathad (**Site 23**). In 2011 Dagg²⁷ identified a possible area of cultivation (**Site 36**) to the south-east of the proposed access track at Carn Beag (Rosehall Farm), interpreting it as a prehistoric field system. An Early Bronze Age cist burial was excavated in 2009²⁸ at Langwell Farm (**Site 19**), to the south-west of the proposed access.

There are several Scheduled Monuments of prehistoric date within c.5 km of the proposed Wind Farm. Located 1.3 km south-west of the access track is the Scheduled Langwell, fort and dun (**Site 13**), a late prehistoric defensive site. To the north-east of the proposed Wind Farm the Scheduled Creich, broch 1600 m NW of, Glen Cassley (**Site 1**) comprises the remains of a broch that has been heavily robbed to build sheepfolds to the south. There is a concentration of prehistoric Scheduled Monuments between c.4 km and 6.5 km north-west of the proposed Wind Farm. These include seven chambered cairns, the closest of which, at a distance of c.4.2 km from the proposed Wind Farm, is the chambered cairn at Cnoc Chaornaidh (**Site 9**), which is scheduled alongside a nearby long mound and cairn (**Site 9.1**). In close proximity is the Scheduled Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh (**Site 18**), which is heel-shaped with a horned facade. Further afield are the Scheduled Loch Ailsh, chambered cairn 900 m SE of (**Site 17**); Cnoc Chaornaidh, chambered cairn 570 m SW of (**Site 14**); Cnoc Chaornaidh, chambered cairn 560 m WSW of (**Site 15**); Cnoc Chaornaidh, chambered cairn 180 m NNE of, Stratheskie (**Site 12**) and Strathseasgaich, chambered cairn 700 m SW of (**Site 11**). Also just beyond 5 km north-east of the proposed Wind Farm is the Scheduled Cnoc Chaornaidh, cairn 930 m NW of (**Site 16**) and Strathseasgaich, burnt mound 500 m SW of (**Site 10**).

²⁷ Dagg, C 2011 *Duchally and Rosehall, Balnagown Estate, Creich, Sutherland: Proposed New Native Woodland Planting, Archaeological Survey*, unpublished client report.

²⁸ Lelong, O 2009 'Langwell Farm, Strath, Oykel, Sutherland, Highland (Kincardine parish), excavation', *Discovery Excav Scot*, New, vol.10 Cathedral Communications Limited, Wiltshire, England, 103.

9.5.3 Early Historic (AD43-AD1000)

No evidence exists of Early Historic activity on the development site. However, within 1 km, a pre-medieval, Celtic type, cross slab is recorded at the burial ground of Cladh a Chnocain (**Site 31**) to the south-east of the proposed access track.

9.5.4 Medieval (AD1000-AD1560)

While no medieval sites are recorded within the proposed Wind Farm boundaries, to the south-east of the proposed access track a skirmish between the Mackays and the Macleods at Tuiteam Tarbhach (**Site 30**) is said to have taken place around 1400. Associated remains comprise a turf-covered natural knoll with an early modern rectangular enclosure on its summit. A 'kirk' is said to have existed at Knockan by c.1600, suggesting that there was a chapel associated with the burial ground at Cladh a Chnocain (**Site 31**), to the south-east of the proposed access track, in the late medieval and early post-medieval period. Further afield, to the east of the proposed development, Highland Council Historic Environment Team have classified the site of the Chapel and Graveyard, Achness (**Site 44**), which dates to between the 11th and the 19th centuries, as a Non-statutory Site of National Importance.

9.5.5 Post-Medieval (AD1560-AD1900)

Early maps of the north of Scotland do not have sufficient detail to be informative regarding the proposed development site, beyond indicating its clearly undeveloped, hilly nature. Gordon's map of c.1636-52²⁹ (Figure 9.3) depicts 'Tuymtimervach', likely the small settlement later called Tuiteam Tarbhach (**Site 34**) to the east of the entrance to the proposed access track. It also shows a church at 'Knoken K', likely the nearby Cladh a Chnocain (**Site 31**). Like Gordon's map, Blaeu's map of 1654³⁰ (not illustrated) shows a string of settlement along 'Strath Okel', or Strath Oykel, including both 'Tuymtimervach' (**Site 34**) and 'Knoken' (**Site 31**), but the hills above are shown without settlement. Moll's map of 1745³¹ (not illustrated) lacks even the detail of Gordon's and Blaeu's maps.

William Roy's Military Survey of 1747-52³² (Figure 9.4) is more detailed, showing the area as undeveloped and very hilly; on Roy's map settlements are shown at 'Knockan' (**Site 31**) and on the banks of Strath Oykel (mainly on the south bank) at 'Langelmenoch'. This may be an early form of Langwell (**Site 20**) south of the proposed development. An anonymous sketch³³ of 'the boundaries & divisions of the earldom of Sutherland', dated 1815 (not illustrated) lacks detail in the area covering the proposed development, but indicates that it was under the ownership of Sir Charles Ross. Buildings are shown on Forbes' map of 1820³⁴ (not illustrated) at 'Tuitemtarravach' (**Site 34**) and at 'Knockan' (**Site 31**). Similarly, Thomson's map of 1820³⁵ (Figure 9.5) depicts settlement at 'Tuilmtarravach' (**Site 34**) and 'Crockan' (**Site 31**), and also at 'Lamwall', again likely Langwell (**Site 20**). Burnett and Scott's map of 1855³⁶ (not illustrated), based on survey in 1831 and 1832, depicts 'Tuitumtarvach' (**Site 34**); it shows the proposed development area as hilly and undeveloped, providing names for the hills but showing no settlement in the area.

²⁹ c.1636-52 Gordon, Robert *Sutherland, Strath Okel & Strath Charron, Sutherland, Strath Oykel and Strathcarron*

³⁰ 1654 Blaeu, Joan *Southerlandia*, Amsterdam

³¹ 1745 Moll, Herman *The Shires of Ross, and Cromartie*, London: Bowles and Bowles

³² 1747-52 Roy, William *Military Survey of Scotland: Highlands*

³³ 1815 Anonymous *Sketch of the county of Sutherland showing the boundaries & divisions of the earldom of Sutherland*

³⁴ 1820 Forbes, William *Sutherlandshire*

³⁵ 1820 Thomson, J *Sutherland Shire*, Edinburgh: J. Thomson & Co

³⁶ 1855 Burnett, Gregory & Scott, William *Map of the county of Sutherland made on the basis of the trigonometrical survey of Scotland in the years 1831, 1832*, Edinburgh: W. & A. K. Johnson

Detailed Ordnance Survey mapping commenced with the 1st Edition 1:10,560 maps of 1879-1881³⁷ (Figure 9.6), which depict the turbine area and the majority of the access track as a landscape of hilly moorland crossed by watercourses. On the Ordnance Survey 1:10,560 map of 1879³⁸, in the west of the area proposed for turbines, a sheepfold (still present on modern 21st century mapping) is labelled as a 'Fank' near Allt a' Choire Bhuidhe (**Site 33**). It is now termed a sheepfold. A road or track (**Site 32**) is shown running from south-west to north-east to the north of Tuiteam Tarbhach on the Ordnance Survey 1:10,560 map³⁹. It is still present on modern 21st century mapping, forming part of the A837 to the south-east of the site access. Adjacent to the track a small area of apparent quarrying appears on the mapping of 1879⁴⁰ and 1908⁴¹ (not illustrated) within the proposed development boundary. It is possible that this road forms a section of the road that 'runs through the parish from Bonar to within a few miles of the manse of Assynt', mentioned in the New Statistical Account⁴².

The NMRS and HER record various non-designated structures within c.1 km of the proposed Wind Farm. To the south-west of the proposed access track is the farmstead of Langwell (**Site 20**), present on both late 19th century and late 20th century Ordnance Survey mapping. To the south of the entrance to the access track, remains of another farmstead are recorded at An Sgreadan (**Site 24**). Nearby a township is recorded at Brae (**Site 25**) and is depicted on both late 19th and late 20th century mapping. Remains of post-medieval buildings are also recorded just south-east of the proposed access track at Strath Oykel (**Site 26**). To the east of the entrance to the proposed access track off the A837, the NMRS records an unroofed building at Tuitim Burn (**Site 28**) and a farmstead at Tuiteam Tarbhach (**Site 29**), both visible on late 19th century mapping.

Several sites of likely post-medieval date were identified by Dagg in 2011⁴³. These are located within 1 km of the proposed access track and include building remains, representing farmsteads (**Sites 37 & 40**); an enclosure (**Site 38**); a turf and rubble dyke (**Site 39**) and a trackway (**Site 41**) to the south-east. To the north-east of the proposed access track, at Carn Beag (Tuitim Burn) (**Site 43**), Dagg also recorded a drystone circular sheep shelter.

Listed Buildings within 5 km of the proposed development include the Category B Listed Rosehall House (**Site 5**) with its associated walled garden (**Site 5.1**) as well as its Category C Listed North Lodge (**Site 3**) and Rosehall Free Church (**Site 4**), all of which are located to the east of the proposed access track. Rosehall House (**Site 5**) was built for Richard Dunning, 2nd Lord Ashburton (1782-1823) who bought Rosehall Estate in 1806. The original house burnt down in May 1817 and was replaced with a classical house in the style of William Robertson. It is likely that the present Rosehall incorporates some fabric from the former house, such as the west wing with its barrel vaulted ceiling. Work undertaken by Ross in 1873 probably included adding further servants' quarters parallel to the rear of the house. The walled garden (**Site 5.1**) is immediately east of the house and incorporates, to the west, a pair of mirrored L-plan single storey and loft ancillary buildings. The North Lodge (**Site 3**) is an early 19th century single storey, square rubble gate lodge, Listed with the adjoining walls. Rosehall Free Church (**Site 4**) dates to c.1844 and is a simple rectangular church.

³⁷ 1879-81 (Surveyed 1873-4) Ordnance Survey *Sutherland* Sheets XCII, C & CI 6 inch to the mile, First Edition

³⁸ 1879 (Surveyed 1873) Ordnance Survey *Sutherland* Sheet C 6 inch to the mile, First Edition

³⁹ 1879 (Surveyed 1873) Ordnance Survey *Sutherland* Sheet CI 6 inch to the mile, First Edition

⁴⁰ 1879 (Surveyed 1873) Ordnance Survey *Sutherland* Sheet CI 6 inch to the mile, First Edition

⁴¹ 1908 (Revised 1903) Ordnance Survey *Sutherland* Sheet CI, 6 inch to the mile, First Edition

⁴² NSA 1845 'Parish of Creich' by Rev. Murdo Cameron, in *The New Statistical Account of Scotland*, vol. 15 (Sutherland-Caithness-Orkney-Shetland-General Index), 21.

⁴³ Dagg, C 2011 *Duchally and Rosehall, Balnagown Estate, Creich, Sutherland: Proposed New Native Woodland Planting, Archaeological Survey*, unpublished client report.

There are several 19th century Listed bridges to the south of the proposed development, including the Category B Listed Invernauld Bridge over Allt Mor Burn (**Site 6**) and Old Oykel Bridge over River Oykel (**Site 7**), both are single span bridges. The Category B Listed Rosehall Cassley Bridge over River Cassley (**Site 2**) also dates to the early 19th century, and is a double span rubble bridge.

9.5.6 Modern (AD1900-present)

The development area appears largely unchanged between the 1st Edition 1879-81 Ordnance Survey 1:10,560 mapping⁴⁴ and the 2nd Edition Ordnance Survey 1:10,560 mapping of 1906-08⁴⁵ (not illustrated). Both the sheepfold previously shown in the west of the area of proposed turbines (**Site 33**) and the road or track (**Site 32**) with associated quarrying to the north of Tuiteam Tarbhach are still depicted. Mapping from 1967⁴⁶ (Figure 9.7) continues to show the proposed development area, including the access track, as open undeveloped ground (with no evidence for forestry plantation); it shows the previously visible sheepfold (**Site 33**) and road (**Site 32**). Mapping of the 1990s⁴⁷ (not illustrated) shows the existence of forestry plantation (Clais Mor Forest) around most of the access route, the line of which largely follows a forestry track. The area proposed for turbines remains as open hills, with the exception of the sheepfold (**Site 33**) in the west. Also apparent are 20th century boundaries around the south of the access track

Approximately 0.7 km to the south-east of the proposed access track is the Brae Doune Foot Bridge over River Oykel (**Site 8**), a suspension bridge constructed in 1938, which is Category B Listed. Further to the east, the interior of the Category B Listed Rosehall House (**Site 5**) is unique in Scotland for its late 1920s interior scheme designed by Coco Chanel.

9.5.7 Undated Remains

The NMRS records the findspot of a stone bowl, a large sandstone pebble with an oval hollow at Alltan Leacach (**Site 21**), to the south of the proposed access track.

9.5.8 Previous Archaeological Surveys

As noted above, an Early Bronze Age cist burial was excavated in 2009 at Langwell Farm⁴⁸ (**Site 19**) to the south-west of the proposed access. Desk-Based Assessments including walkover surveys have been undertaken at Caplich Woodlands (**Site 42**), to the west of the proposed Wind Farm⁴⁹, and on various parts of the Balnagowan Estate (**Site 35**) including areas to the north-east of the proposed access track at Carn Beag (Tutim Bridge) and at Carn Beag (Rosehall Farm)⁵⁰. Several sites were identified by Dagg in 2011⁵¹ within 1 km of the proposed access track, including a possible area of cultivation, perhaps representing a prehistoric field system (**Site 36**) to the south-east. Nearby Dagg also recorded several heritage assets including farmsteads (**Sites 37 & 40**); an enclosure

⁴⁴ 1879-81 (Surveyed 1873-4) Ordnance Survey *Sutherland* Sheets XCII, C & CI 6 inch to the mile, First Edition

⁴⁵ 1906-08 (Revised 1903) Ordnance Survey *Sutherland* Sheets XCII, C & CI 6 inch to the mile, First Edition

⁴⁶ 1967 (Surveyed 1964) Ordnance Survey Sheet NC30 SE, 1:10,560

⁴⁷ Footnotes are for citations and references and notes 1990 (Revised 1989) Ordnance Survey Sheets NC30 SE & NC40 SW, 1:10,000

⁴⁸ Lelong, O 2009 'Langwell Farm, Strath, Oykel, Sutherland, Highland (Kincardine parish), excavation', *Discovery Excav Scot*, New, vol.10 Cathedral Communications Limited, Wiltshire, England, 103.

⁴⁹ Harden, J 1998 A Rapid Archaeological Assessment of Caplich Woodlands, Strath Oykel, Sutherland, in Advance of a Woodland Grant Scheme, unpublished client report.

⁵⁰ Dagg, C 2011 *Duchally and Rosehall, Balnagowan Estate, Creich, Sutherland: Proposed New Native Woodland Planting, Archaeological Survey*, unpublished client report.

⁵¹ Dagg, C 2011 *Duchally and Rosehall, Balnagowan Estate, Creich, Sutherland: Proposed New Native Woodland Planting, Archaeological Survey*, unpublished client report.

(**Site 38**); a turf and rubble dyke (**Site 39**) and a trackway (**Site 41**). To the north-east of the proposed access track, at Carn Beag (Tutim Burn) (**Site 43**) Dagg recorded a drystone circular sheep shelter.

9.5.9 Walkover Survey

A walkover survey of the proposed access track and turbine area was undertaken on the 14th and 15th of April 2014 in order to investigate the condition and significance of known archaeology on the site and with the aim of identifying any previously unknown remains. The weather was generally sunny and dry, with some cloud; visibility was generally good.

The access track follows an existing forestry access track, which at first rises over moorland pasture from the A837, near Tuiteam Tarbhach. To the west of the access, off the road, is an area of undulating ground and bedrock, perhaps the remains of a former quarry associated with the earlier form of the A837 (**Site 32**). To the north is an area in which are recorded hut circles and field systems at Strath Oykel (**Site 27**). Several elements of this site were identified within the proposed development area during the walkover survey. Of three previously recorded hut circles, only two are now clearly visible. One hut circle (**Site 27.1**), likely that recorded on the NMRS as 'A', was visible on a slight rise above and north of the existing forestry track, and was centred at NC 43083 01300 (**Technical Appendix 9.2**; Plate 1). It was damaged to the south by the forestry track and perhaps by earlier erosion (**Technical Appendix 9.2**; Plate 2), and appeared to have an entrance to the east. It was marked by a c.2 m wide grass-covered bank and had a diameter of less than 10 m. To the north, at NC 43012 01382, a hut circle (**Site 27.2**), likely 'C', was identified with an internal diameter of c. 10-11 m, and a wall width (marked by a low earthwork bank with stones) of between 2 m and 2.5 m, and a height of up to 0.5 m (**Technical Appendix 9.2**; Plate 3). Near this hut circle, a small earth bank (**Site 27.8**), c. 0.3 m high and 10 m long, aligned NW/SE, was visible between NC 43025 01391 and NC 43032 01386). Another earth bank, up to 0.5 m high and between 2 m and 3 m wide, representing a potential lynchet (**Site 27.7**), was visible between NC 43012 01364 and NC 42992 01366), with a corner at NC 42995 01371 (**Technical Appendix 9.2**; Plate 4).

The third hut circle recorded by the NMRS, likely 'B', could not be clearly identified, even with the aid of Ordnance Survey mapping, though an area of disturbed ground around NC 43120 01350 (**Site 27.3**), to the south of the forestry track and near an area of modern culverting showed some evidence for potential earth banks. However, this was more likely evidence for quarrying for the forestry track as there was a deep hollow in the centre of the area (**Technical Appendix 9.2**; Plate 5).

An earth and stone bank (**Site 27.9**), between 1 m and 1.5 m wide and up to 1 m high, though commonly much lower, was seen to curve from west to east between NC 43147 01494 and NC 43168 01498, with a pronounced curve at its centre around NC 43155 01498 (**Technical Appendix 9.2**; Plate 6). Various potential clearance cairns associated with the field system around the hut circles were also identified during the walkover survey (**Sites 27.4-27.6**). A potential clearance cairn located a little further north (**Site 47**) may also be an outlying element of **Site 27**.

There are numerous signs of disturbance caused by the construction of the forestry track in the later 20th century. A small quarry (**Site 46**), to its north-west is likely to be connected with this work.

The forestry track crosses an extensive area of plantation and is marked by numerous modern quarrying areas associated with the construction of the track. There are several modern wooden structures including possible hides adjacent to the access route. No evidence was found for a possible earthwork at Clais Mor (**Site 45**), visible on aerial photographs of the 1940s and 1950s, to the south of the track. This area was found to be under dense plantation.

The main part of the Wind Farm development area, to the north-west of the access track, is marked by open hilly moorland, commonly with extensive views (**Technical Appendix 9.2**; Plates 7 & 8), in particular from such heights as Beinn an Eoin Bheag (372 m AOD) and minor summits to the south-west of Beinn An Eoin. There are numerous bedrock outcrops and areas of peat hacks. Within the main turbine area, the sheepfold at Allt a' Choire Bhuidhe (**Site 33**) visible on 19th to 21st century mapping, was found to be still largely upright, with walls up to 1.5 m in height and 0.8 m in width (**Technical Appendix 9.2**; Plate 9). It appears that entrances have been blocked in the past. Possible entrances may have existed to the west, north and south-east. Apart from this feature the area is largely devoid of signs of human activity, with the exception of drainage cuts. A small walkers' cairn was found at the summit of Beinn an Eoin Bheag (**Site 48**) (**Technical Appendix 9.2**; Plate 10).

9.5.10 Aerial Photographic Evidence

A search of vertical aerial photographs held by the RCAHMS identified images dating from 1946 to 1989 which depicted the land within and immediately surrounding the development site (Section 9.8.3).

The photographs indicated that the area of the proposed Wind Farm has been largely covered by moorland from the mid-1940s onwards. The area proposed for turbines is devoid of human constructions, with the exception of the sheepfold near Allt a' Choire Bhuidhe (**Site 33**), which is visible on numerous photographs, and extensive drainage trenches, in particular in the vicinity of the sheepfold. South of the proposed access track and c.25-50 m beyond the proposed development area, a circular feature, perhaps an earthwork, is visible on images from the 1940s and 1950s⁵² near the confluence of Clais Mor with Allt na Claise Moire (**Site 45**). It is of a similar size to a nearby sheepfold located to the south-east beyond the proposed development area. Its absence on images in the 1980s is likely a result of its disturbance, if not entire removal, by forestry works. Images from the 1980s show the preparation of the area surrounding the proposed access track for forestry plantation, with the excavation of plantation furrows⁵³. Images from this sortie are also the first to depict the forestry track that the proposed access track largely follows. Dark spots visible at points along the sides of the forestry track are likely to be signs of quarrying for the track. A short track is visible leading from the forestry track to an enclosure (labelled a 'Fank' on historic Ordnance Survey mapping) beyond the proposed development area and to the south-east of the access track. A pool (likely derived from quarrying) marked on up-to-date mapping of the site, near the entrance to the access route is not visible on aerial photographic images of the 1980s⁵⁴, and is therefore likely a very recent feature.

9.6 Archaeological and Cultural heritage Value

The Cultural Heritage Value of the assets known within the proposed development area has been classified according to the method shown in **Table 9.1** and the results are shown in **Table 9.7** below.

Table 9.7: Sensitivity of Heritage Assets

Site No.	Site Name	Status	Description	Cultural Heritage Value
27	Strath Oykel	Not Designated	Hut Circles; Clearance Cairns; Banks	Regional
32	Tuiteam Tarbhach	Not Designated	Road; Quarry (Possible)	Negligible

⁵² e.g. Sortie 58/0801; Frame 3143, dated 1951 and Sortie CPE/UK/0185; frame 1073, dated 1946

⁵³ e.g. Sortie OS/86/134; Frame 009, dated 1986

⁵⁴ e.g. Sortie ASS/628/88; Frame 243, dated 1988

33	Allt a' Choire Bhuidhe	Not Designated	Sheepfold	Negligible
46	Strath Oykel	Not Designated	Quarry	None
47	Strath Oykel	Not Designated	Clearance Cairn (Possible)	Negligible
48	Beinn an Eoin Bheag	Not Designated	Walker's Cairn	None

The field system remains and hut circles recorded near the access track at Strath Oykel (**Site 27**), in spite of the damage caused to elements of them, especially the south-eastern hut circle (**Site 27.3**) are judged as a whole to be of potentially Regional Cultural Value, as an example of late prehistoric settlement. The hut circle and field system provide evidence for prehistoric, and perhaps later, agricultural utilisation of the area around the access route. A possible outlying clearance cairn (**Site 47**) is judged to be of Negligible Cultural Value, as, even if real, is a relatively common feature of little importance. Similarly, the sheepfold (**Site 33**) in the north-west of the proposed development area and the road with associated quarrying (**Site 32**) identified near the south of the access track are common features of limited importance, and are judged to be of at most Negligible Cultural Value. The other features identified, including a quarry (**Site 46**) likely associated with the construction of the forestry track and a small walker's cairn (**Site 48**) are common features of recent date and judged to be of no Cultural Heritage Value.

9.7 Potential Impacts

9.7.1 Direct Impacts

Potential impacts on known or unknown buried archaeological remains in the case of this development relate to the possibility of disturbing, removing or destroying *in situ* remains and artefacts during groundbreaking works (including excavation, construction and other works associated with the development) on this site.

This assessment has identified six cultural heritage sites of prehistoric, post-medieval and modern date within the development site, in particular in proximity to the access track. These features include 20th century quarry remains and a walkers' cairn of essentially No Cultural Heritage Value; post-medieval quarrying, road and agricultural remains of Negligible Cultural Heritage Value and a prehistoric field system with hut circles of potentially Regional Cultural Heritage Value. Heritage assets within and in the vicinity of the Proposed Development, including archaeological or historical sites, monuments or buildings, are plotted on the site location maps (**Figures 9.1 and 9.2**), including the extent of Scheduled Monuments as indicated by Historic Scotland polygons.

The magnitude of impact upon the known heritage assets can be predicted by plotting known archaeology against proposed locations for turbines, access tracks and other site infrastructure. Table 9.8 below outlines the predicted significance of impact by the development upon the remains of Negligible or more Cultural Heritage Value found within the development area, its conclusions have been formulated using the criteria laid out in **Tables 9.1 to 9.3**.

Table 9.8: Summary of Impacts upon Remains within Proposed Development Area

Site No.	Site Name	Cultural Heritage Value	Magnitude of Impact	Significance of Impact
27	Strath Oykel	Regional	Marginal	Minor
32	Tuiteam Tarbhach	Negligible	Low	Negligible

33	Allt a' Choire Bhuidhe	Negligible	None	None
47	Strath Oykel	Negligible	None	None

The prehistoric hut circles and field system remains at Strath Oykel, although already damaged in areas by the existing forestry track, would potentially incur impacts on peripheral elements, in particular around surviving remains of hut circles on either side of the track (**Sites 27.1 & 27.3**) and a clearance cairn (**Site 27.4**). However, the design of the access track utilises the existing forestry track. The access track design will avoid widening of the track, e.g. for passing places, where adjacent to visible remains, in particular in the vicinity of the relatively undamaged hut circle to the north-west of the track (**Site 27.1**); the hut circle to the south-east (**Site 27.3**) of the track and the clearance cairn to the north (**Site 27.4**). Additionally, the track will be reduced to 4.0 m running width where necessary, overlying the existing track, and would therefore not impact visible remains. As a result, there is potential for at worst the loss of a small quantity of peripheral deposits associated with the heritage asset. This would be at worst an impact of Marginal magnitude and *Minor* significance, and thus not significant in terms of EIA regulations. The route of the access track would avoid all impacts on the possible clearance cairn at Strath Oykel (**Site 47**) and the sheepfold at Allt a' Choire Bhuidhe (**Site 33**), though the former is likely to require a visible buffer to avoid inadvertent damage from plant movement. The works at the entrance to the access track are likely to cause only minimal impacts to remains of the late post-medieval road that preceded the A837, perhaps including the removal of evidence for associated quarrying (**Site 32**). This would be at worst a Low magnitude impact of *Negligible* significance.

Given the existence of prehistoric and later remains in the vicinity of the southern end of the access track, including the chapel and burial ground at Cladh a Chnocain (**Site 31**), with its pre-medieval cross slab, it is possible that, in addition to the assets identified in this report, as yet unknown buried archaeological remains may survive within the development site, in particular in proximity to the southern end of the access route.

9.7.2 Indirect Impacts

Indirect impacts include visual impacts upon the setting of designated heritage assets such as Listed Buildings, Scheduled Monuments and Gardens and Designed Landscapes. While there are no protected heritage assets within the proposed Wind Farm site, this assessment has identified eleven Scheduled Monuments within c. 5 km of the proposed Wind Farm. Additionally, seven Listed Buildings and one site identified by the Highland Council Historic Environment Team as being of potentially National Importance can be found within 5 km of the proposed Wind Farm. Each of these has the potential to incur impacts on their settings from the proposed Wind Farm, though the rolling topography of the area and the presence of large stands of forestry plantation and woodland are likely to limit the actual number and scale of such impacts. In their scoping response, Historic Scotland requested that particular attention be paid to potential impact upon the settings of: Creich Broch 1600 m NW of, Glen Cassley (Scheduled Monument Index No. 1852) (**Site 1**), located 4.5 km north-east of the turbine area; Langwell, fort and dun 500 m WSW of (Scheduled Monument Index No. 5302) (**Site 13**), located 5.0 km south-east of the proposed turbine area, and Scheduled Monuments in the vicinity of Glen Oykel, located between 4 and 6.5 km to the north-west of the proposed Wind Farm. The site visits for the setting assessment were undertaken from 14th to 17th April 2014.

This assessment is based upon Zone of Theoretical Visibility (ZTV) mapping data, and upon a scheme for 20 turbines with blade tip heights of 132 m, positioned within the proposed development area as illustrated in

Figure 9.1. The extent to which tree cover, hedge lines, walls and intervening buildings could affect the theoretical visibility indicated on the ZTV was also taken into consideration in the assessment through site visits. Zone of Theoretical Visibility (ZTV) mapping has indicated that there will be six Scheduled Monuments, four Listed Buildings and a Non-Statutory Site of National Importance that will not be intervisible with the wind turbines. These heritage assets are listed in **Table 9.9**.

Table 9.9: Designated Heritage Assets Not Intervisible with the Proposed Wind Farm According to ZTV Data

Site No.	Site Name	Status
1	Creich, broch 1600 m NW of, Glen Cassley	Scheduled Monument 1852
2	Rosehall, Cassley Bridge over River Cassley	Listed Building: Category B
5	Rosehall House and Walled Garden (House)	Listed Building: Category B
5.1	Rosehall House and Walled Garden (Garden)	Listed Building: Category B
7	Old Oykel Bridge over River Oykel	Listed Building: Category B
8	Brae Doune Foot Bridge over River Oykel	Listed Building: Category B
10	Strathseasgaich, burnt mound 500 m SW of	Scheduled Monument 4025
12	Cnoc Chaornaidh, chambered cairn 180 m NNE of, Stratheskie	Scheduled Monument 4045
15	Cnoc Chaornaidh, chambered cairn 560 m WSW of	Scheduled Monument 4023
16	Cnoc Chaornaidh, cairn 930 m NW of	Scheduled Monument 4042
17	Loch Ailsh, chambered cairn 900 m SE of Strathseasgaich	Scheduled Monument 4043
44	Site of Chapel and Graveyard, Achness	Non-Statutory Site of National Importance

Historic Scotland has indicated particular concern with the potential impacts on the settings of: Creich Broch 1600 m NW of, Glen Cassley (Scheduled Monument Index No. 1852) (**Site 1**); Langwell, fort and dun 500 m WSW of (Scheduled Monument Index No. 5302) (**Site 13**), and Scheduled Monuments in the vicinity of Glen Oykel. As noted above Creich Broch does not lie within the ZTV and so assessment of it is not taken further here. A summary of the predicted visual impacts upon the settings of cultural heritage assets within the ZTV is provided in

Table 9.10 below. Brae Doune Footbridge while outwith the ZTV will be in close proximity to the access track and so is included below.

Table 9.10: Summary of Impacts upon the Setting of Heritage Assets

Site No.	Site Name	Status	Distance to nearest turbine	Number of turbines visible	Factors Affecting Visibility	Relative Visual Sensitivity	Magnitude of Impact	Significance of Impact
4	Rosehall Free Church	Listed Building: Category C	11.2 km	6-10	Mature trees and rising ground to west of church would block views towards the site as demonstrated by the wireline drawing and photomontage provided in Figure 9.13 .	Medium	Marginal	Negligible
8	Brae Doune Foot Bridge over River Oykel	Listed Building: Category B	990 m from site entrance	N/A	Intervisible with proposed access track, though rising ground and trees prohibit views of proposed turbines.	Low	Low	Negligible
9	Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (chambered cairn)	Scheduled Monument 4654	4.53 km	6-10	Rising ground to east limits intervisibility with proposed Wind Farm as demonstrated by the wireline drawing and photomontage provided in Figure 9.9 .	High	Marginal	Minor
9.1	Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (long mound, cairn)	Scheduled Monument 4654	4.81 km	1-5	Set within a clearing in forestry plantation; plantation trees in close proximity and rising ground to east will limit intervisibility with proposed Wind Farm.	High	Marginal	Minor
11	Strathseasgaich, chambered cairn 700 m SW of	Scheduled Monument 4044	6.82 km	1-5	Set within a clearing in forestry plantation; plantation trees in close proximity and rising ground to east will limit intervisibility with proposed Wind Farm as demonstrated by the wireline drawing and photomontage provided in Figure 9.12 .	High	Marginal	Minor
13	Langwell, fort and dun 500 m WSW of	Scheduled Monument 5302	5.66 km	6-10	Rising ground to north will limit intervisibility with proposed Wind Farm as demonstrated by the wireline drawing and photomontage provided in Figure 9.8 .	High	Marginal	Minor
14	Cnoc Chaornaidh, chambered cairn 570 m SW of	Scheduled Monument 4022	5.64 km	1-5	Rising ground to east will limit intervisibility with proposed Wind Farm as demonstrated by the wireline drawing and photomontage provided in Figure 9.11 .	High	Marginal	Minor
18	Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh	Scheduled Monument 4046	4.65 km	16-20	Set within a linear (N/S) clearing in forestry plantation; plantation trees in close proximity and rising ground to east will limit intervisibility with proposed Wind Farm as demonstrated by the wireline drawing and photomontage provided in Figure 9.10 .	High	Marginal	Minor

The majority of the designated heritage assets within c.5 km of the proposed Wind Farm would not be intervisible with the turbines, due to topography (**Table 9.9**) and, in the case of several Listed Buildings near Rosehall (**Sites 3 & 6**), the presence of mature woodland and plantation in close proximity (these heritage assets are also located at a distance of greater than 10 km from the turbine area. As a result, No impact on the settings of these heritage assets are predicted. However, Brae Doune Foot Bridge over River Oykel (**Site 8**), although not intervisible with the turbines, would be intervisible with the access and associated infrastructure, including a sub-station and compounds (**Technical Appendix 9.2**; Plate 11). The bridge is a communications feature and its visual setting was not a primary factor in its location over a wide watercourse. As such, it is judged to be of Low visual sensitivity to changes to its setting. The alterations to an already existing access track and the addition of infrastructure, would result in minor changes to the bridge's current setting, and at most cause a Low magnitude impact to its setting. This is considered to be an impact of, at most, *Negligible* significance. The turbines would potentially be peripherally visible in distant views to the west from Rosehall Free Church (**Site 4**), beyond a thin screen of trees, in particular in winter months (**Figure 9.13**; Cultural Heritage Viewpoint 6). However, this would be, at most, an impact on the setting of the church of Marginal magnitude, and an effect of *Negligible* significance.

The fortified site of Langwell, fort and dun 500 m WSW of (**Site 13**), commands a dominant location on the south side of the River Oykel (**Technical Appendix 9.2**; Plate 12). It clearly owes its location in large part to its visual setting, and is also of High visual sensitivity. Only the eastern part of the fort would be theoretically intervisible with the turbines of the proposed Wind Farm, which would be visible at a distance of over 5 km, well beyond the east/west axis of the river, to the north-west, and in large part shielded by the rising topography in this direction and by forestry (**Figure 9.8**; Cultural Heritage Viewpoint 1). As such the turbines would only be peripherally if at all visible, leading to an impact of Marginal magnitude, and an effect of *Minor* significance. While it is possible that the removal of intervening forestry may lead to higher impacts, the wireline drawings which are provided in **Figure 9.8** show that the visibility of the development with no intervening vegetation at all will not form a significant alteration to the setting of the monument in all instances assessed.

The Scheduled burial monuments in Glen Oykel, which largely comprise chambered cairns, are judged to be of High visual sensitivity, as they were designed to be visible from the surrounding landscape. Those that lie within the ZTV of the proposed Wind Farm include Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (**Sites 9 & 9.1**), Strathseasgaich, chambered cairn 700 m SW of (**Site 11**), Cnoc Chaornaidh, chambered cairn 570 m SW of (**Site 14**) and Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh (**Site 18**).

Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh (**Site 18**) is located within a linear (north/south-aligned) clearing in a mature forestry plantation (**Technical Appendix 9.2**; Plate 13). It is likely that plantation trees in close proximity and rising ground to the east will limit intervisibility with the proposed Wind Farm (**Figure 9.10**; Cultural Heritage Viewpoint 3). Additionally, the present setting of the monument is currently characterised by the plantation in which it is located. As such, at most a Marginal magnitude impact on its setting is predicted, an effect of *Minor* significance. It is possible that when the surrounding forestry is cropped higher impacts may be incurred. However the wireline drawings which are provided in **Figure 9.10** show that the visibility of the development with no intervening vegetation at all will not form a significant alteration to the setting of the monument in all instances assessed.

The Scheduled Cnoc Chaornaidh, chambered cairn, cairn and long mound east of, is divided into two separate areas, a chambered cairn (**Site 9**), located on the edge of forestry, with open views across the River Oykel towards the east, and a long mound and cairn (**Site 9.1**) located within a large clearing in commercial forestry plantation.

(**Figure 9.9**; Cultural Heritage Viewpoint 2) For both areas of this Scheduled Monument, intervisibility with the proposed Wind Farm will be limited by rising ground to the east; forestry in close proximity would additionally limit intervisibility from **Site 9.1**. Insignificant alterations to the wider setting of this Scheduled Monument are predicted. The turbines will be located beyond the original valley setting of these heritage assets. This would comprise at worst an impact of Marginal magnitude and an effect of *Minor* significance. Again, while it is possible that the forestry surrounding **Site 9.1** may be cropped, leading to a potential for a slightly greater impact, the wireline drawings which are provided in **Figure 9.9** show that the visibility of the development with no intervening vegetation at all will not form a significant alteration to the setting of the monument in all instances assessed.

Due to rising topography to the east, both Strathseasgaich, chambered cairn 700 m SW of (**Site 11**) (**Technical Appendix 9.2**; Plate 14) (**Figure 9.12**; Cultural Heritage Viewpoint 5) and Cnoc Chaornaidh, chambered cairn 570 m SW of (**Site 14**) (**Technical Appendix 9.2**; Plate 15) (**Figure 9.11**; Cultural Heritage Viewpoint 4) are located on the edge of the ZTV of the proposed Wind Farm. These Scheduled Monuments also stand more than 5 km from the turbines of the proposed Wind Farm. Additionally, the former is set within a clearing in forestry plantation and the trees of the plantation, which are located close to the cairn, will further limit intervisibility with the proposed Wind Farm. The proposed Wind Farm therefore has a potential to cause at most Marginal magnitude impacts to the wider settings of these monuments, effects of at most *Minor* significance.

9.7.3 Cumulative Impacts

Cumulative impacts in so far as they relate to cultural heritage are for the most part limited to Indirect Impacts upon the settings of monuments. For this assessment statutory monuments up to 5 km from the proposed Wind Farm have been identified and the significance of the impacts which may result from the proposed Wind Farm at Caplich has been assessed. Cumulative impacts have only been considered for those assets where the impact upon setting from the Caplich development alone has been judged to be of *Minor* significance or greater. This is because it is judged to be unlikely that cumulative impacts upon the setting of those monuments which will be subject to impacts of negligible significance (based on Caplich itself) are unlikely to reach the EIA regulation significance threshold. The following five assets are considered for cumulative impacts:

- Cnoc Chaornaidh, chambered cairn, cairn and long mound east of, Scheduled Monument 4564 (**Sites 9 & 9.1**);
- Strathseasgaich, chambered cairn 700 m SW of, Scheduled Monument 4044 (**Site 11**);
- Langwell, fort and dun 500 m WSW of, Scheduled Monument 5302 (**Site 13**);
- Cnoc Chaornaidh, chambered cairn 570 m SW of, Scheduled Monument 4022 (**Site 14**); and
- Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh, Scheduled Monument 4046 (**Site 18**).

Although now superseded by SPP⁵⁵, PAN45⁵⁶ provides more detailed guidance than SPP on the visibility of turbines. PAN45 notes that wind turbines located at a distance of 15 to 30 km away are '*only seen in very clear visibility – a minor element in the landscape*'. Scottish Natural Heritage's (SNH) *Siting and Designing Wind Farms*

⁵⁵ Scottish Government 2014 SPP *Scottish Planning Policy*.

⁵⁶ Scottish Executive 2002 PAN45 *Renewable Energy Technologies*.

in the *Landscape* notes, however, that, 'The visibility and visual impacts of a windfarm are affected by the distance from which it is viewed, as well as other aspects such as weather conditions and siting. In the past, guidance notes such as *Planning Advice Note 45* have offered generic categories of visibility and visual impact in relation to distance, suggesting the following: that in an open landscape at distances of up to 2 km, a windfarm is likely to be a prominent feature; between 2–5km it will be relatively prominent; between 5–15 km only prominent in clear visibility when it is seen as part of the wider landscape; and over 15km it will only be seen in very clear visibility and as a minor element in the landscape. However, in practice these guidelines are limited in their application: – firstly, because it is unclear what height of turbine these distances were based upon; and, – secondly, because visual impacts are not directly proportional to distance, as the nature of a view (e.g. a framed/open view or backclothed/skyline view) and its context are as important as the size of a development within that view'⁵⁷. However, it is considered that impacts at such distances are unlikely in most instances, to have a significant impact on the cultural heritage value of monuments except in very rare cases, none of which have been identified here. Operational, consented and proposed wind farms projects within c.15 km of the site have been considered with regards to potential cumulative impacts on cultural heritage. These include: the operational wind farms at Rosehall and Achany, and the wind farms with planning applications at Glencassley, Sallachy and Braemore. Additionally an application has been made for two turbines at Croick Estate.

The Scheduled Monument of Langwell, fort and dun 500 m WSW of (**Site 13**) is located to the south-east of the turbine area of the proposed Wind Farm at Caplich, and has no significant intervisibility with the operational wind farms at Rosehall and Achany, to its north-east. It is also unlikely to have significant intervisibility with Glencassley, Sallachy or Braemore, which would be located at greater distances to the north-east and east. However, it is possible that the two proposed turbines at Croick Estate may be visible to the south-west. However, the Croick Estate turbines and the Caplich turbines would rarely, if ever, be visible in the same views, particularly as theoretical visibility of the Caplich turbines is limited to the east of the monument. As such the cumulative impact on the setting of the monument is judged at worst to be of Marginal magnitude, with an effect of *Minor* significance.

The Scheduled Monuments in the Glen Oykel area, Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (**Sites 9 & 9.1**); Strathseasgaich, chambered cairn 700 m SW of (**Site 11**); Cnoc Chaornaidh, chambered cairn 570 m SW of (**Site 14**), and Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh (**Site 18**) are all located to the north-west of the proposed Wind Farm at Caplich, and the various wind farm developments located further to the east and south-east (Rosehall; Achany, Braemore and Glencassley), are likely to be largely shielded by intervening high ground. If visible at all, these developments would appear as minor features, behind and generally slightly to the (north) side of the Caplich turbines. As such, the cumulative impact of these developments would at worst, not constitute a significant alteration to the settings of these Scheduled Monuments. Similarly, the wind farm in planning at Sallachy, located to the north-east of this group of monuments, would be largely, if not entirely, shielded from them by intervening high ground. The turbines of Sallachy, if visible at all, would be located in a group behind and to the north of the Caplich turbines, producing an insignificant alteration to the wider settings of the monuments. Similarly, the turbines at Croick Estate, if constructed, would be largely shielded from these monuments by intervening hills and would appear behind or slightly to the (south) side of the turbines of Caplich. Overall, the cumulative impacts on the settings of these Scheduled Monuments (**Sites 9, 11, 14 & 18**) would be of, at worst, Marginal magnitude and of *Minor* significance.

⁵⁷ Scottish Natural Heritage 2009 *Siting and Designing Wind Farms in the Landscape*, Paragraph 4.20.

9.8 Mitigation

National planning policies and planning guidance, SPP⁵⁸, SHEP (2011)⁵⁹ and PAN2/2011⁶⁰, as well as the local planning policies (Highland Council 2012⁶¹ & 2013⁶²), outlined in Section 9.2.3 of this report, require a mitigation response that is designed to avoid or minimise the potential for archaeological sites within the development area to be impacted. The mitigation proposals outlined here would allow the preservation or recording of any significant heritage remains encountered.

The presence of prehistoric hut circles and field system remains (**Site 27**) in proximity to the southern end of the proposed access track indicates that the area has been subject to occupation and agricultural activities in the past. Additionally, there are remains in the vicinity, including the chapel and burial ground at Cladh a Chnocain (**Site 31**) which indicate pre-medieval, medieval and post-medieval occupation. Quarries associated with roads and tracks, a sheepfold and a walkers' cairn indicate more recent activity (commonly 19th or 20th century) within the proposed Wind Farm boundary. Impact assessment has indicated the possibility for direct impacts of potentially *Minor* significance upon peripheral deposits associated with the visible prehistoric hut circles and field system remains at Strath Oykel (**Site 27**). The remains of two hut circles (**Sites 27.1 & 27.3**) and a clearance cairn (**Site 27.4**) are located adjacent to the route of the proposed access track. However, the access track largely utilises the existing forestry track, and the design of the track avoids impacts on these visible features. In areas in the vicinity of **Site 27** where the access track involves widening of the existing track, e.g. for passing places, prior to groundworks intrusive and/or non-intrusive evaluation may be required to be undertaken to identify and record fully potential sub-surface archaeological deposits and features. Depending on the results of such investigation, this may lead to additional archaeological works such as excavation and post-excavation analyses.

As far as is feasible, e.g. around a linear bank (**Site 27.9**), these features will be fenced off with a buffer during construction to avoid accidental damage by heavy plant movement. Design works have led to the avoidance of the sheepfold at Allt a' Choire Bhuidhe (**Site 33**) and the possible clearance cairn at Strath Oykel (**Site 47**). However, the latter of these heritage assets will be fenced off to avoid inadvertent damage by plant. As works at the entrance to the access track are likely to cause only minimal impacts to remains of the late post-medieval road that preceded the A837, perhaps including the removal of peripheral elements of associated quarrying (**Site 32**), it is not considered that specific mitigation works are required.

Given the largely peat-covered nature of the ground proposed for development and the identification of known prehistoric and post-medieval sites within the vicinity, there is a possibility of encountering hitherto unknown buried archaeological remains during groundbreaking works associated with the development, in particular within the southern part of the access route. Further evaluation or mitigation works may therefore be required by the planning authority. For example, an archaeological evaluation and/or watching brief on a proportion of groundbreaking works may be required by the local planning authority. The purpose of such works would be to identify any archaeological remains threatened by the development, to assess their significance and to mitigate any impact upon them either through avoidance or, if preservation *in situ* is not warranted, through preservation

⁵⁸ Scottish Government 2014 *SPP Scottish Planning Policy*.

⁵⁹ Historic Scotland 2011 *Scottish Historic Environment Policy (SHEP)*.

⁶⁰ Scottish Government 2011 *PAN2/2011 Planning and Archaeology*.

⁶¹ Highland Council 2012 *Highland Wide Local Development Plan*.

⁶² Highland Council 2013 *The Highland Council Supplementary Guidance: Historic Environment Strategy (Version that is recommended to the Planning, Environment and Development Committee (16 January 2013) to be statutorily adopted and issued)*.

by record. It is possible that evaluation works may lead on to further works such as excavation and post-excavation analyses.

This assessment has indicated potential impacts ranging from *Negligible* to *Minor* significance on the settings of designated heritage assets. Additionally, cumulative impacts of, at worst, *Minor* significance are also possible on the settings of four Scheduled Monuments in Glen Oykel (**Sites 9, 11, 14 & 18**). Such impacts are not deemed to be significant in terms of EIA regulations. It should also be noted that the Caplich turbines would be located at a significant distance from these monuments, and would not affect their close setting. Thus the close settings of the monuments would remain unaltered by the proposed Wind Farm. Additionally, impacts upon the setting of these monuments are limited to the 25 year operational period of the wind farm. The impacts are reversible.

9.8.1 Residual effects

The Proposed Development is predicted to result in no significant direct residual effects in EIA terms on heritage assets. No significant effects in EIA terms on the settings of designated heritage assets including Scheduled Monuments, Listed Buildings or non-designated Sites of National Importance are predicted.

Table 9.11: Summary of Residual Effects by Proposed Development upon Heritage Assets and their Settings

Site No.	Site Name	Type of Impact	Magnitude of Impact	Significance of Impact
4	Rosehall Free Church	Indirect	Marginal	Negligible
8	Brae Doune Foot Bridge over River Oykel	Indirect	Low	Negligible
9	Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (chambered cairn)	Indirect	Marginal	Minor
9	Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (chambered cairn)	Cumulative	Marginal	Minor
9.1	Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (long mound, cairn)	Indirect	Marginal	Minor
9.1	Cnoc Chaornaidh, chambered cairn, cairn and long mound east of (long mound, cairn)	Cumulative	Marginal	Minor
11	Strathseasgaich, chambered cairn 700 m SW of	Indirect	Marginal	Minor
11	Strathseasgaich, chambered cairn 700 m SW of	Cumulative	Marginal	Minor
13	Langwell, fort and dun 500 m WSW of	Indirect	Marginal	Minor
13	Langwell, fort and dun 500 m WSW of	Cumulative	Marginal	Minor

Site No.	Site Name	Type of Impact	Magnitude of Impact	Significance of Impact
14	Cnoc Chaornaidh, chambered cairn 570 m SW of	Indirect	Marginal	Minor
14	Cnoc Chaornaidh, chambered cairn 570 m SW of	Cumulative	Marginal	Minor
18	Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh	Indirect	Marginal	Minor
18	Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh	Cumulative	Marginal	Minor
27	Strath Oykel	Direct	Marginal	Minor
32	Tuiteam Tarbhach	Direct	Low	Negligible

9.9 References

9.9.1 Bibliographic References

- Becket, A & Miller, J 2009 'Langwell Farm, Strath, Oykel, Sutherland, Highland (Kincardine parish), excavation, auger survey and peat sampling', *Discovery Excav Scot*, New, vol.10 Cathedral Communications Limited, Wiltshire, England, 103-104.
- Childe, V G & Thorneycroft, W 1938 'The vitrified fort at Rahoy, Morvern, Argyll', *Proc Soc Antiq Scot*, vol.72, 23-55.
- Dagg, C 2011 *Duchally and Rosehall, Balnagown Estate, Creich, Sutherland: Proposed New Native Woodland Planting, Archaeological Survey*, unpublished client report.
- Fernie, E 1995 *Art History and its Methods, a Critical Anthology*.
- HMSO 1979 *The Ancient Monuments and Archaeological Areas Act 1979*.
- HMSO 1997 *Town and Country Planning (Scotland) Act 1997*.
- HMSO, 1997a *Planning (Listed Buildings and Conservation Areas (Scotland)) Act 1997*.
- HMSO 2011 *Historic Environment (Amendment)(Scotland) Act 2011*.
- Harden, J 1998 *A Rapid Archaeological Assessment of Caplich Woodlands, Strath Oykel, Sutherland, in Advance of a Woodland Grant Scheme*, unpublished client report.
- Henshall, A S 1963 *The Chambered Tombs of Scotland*, vol.1 Edinburgh.
- Henshall, A S 1972 *The Chambered Tombs of Scotland*, vol.2 Edinburgh.
- Highland Council 2001 *Highland Council Structure Plan*.
- Highland Council 2010 *Sutherland Local Plan*.
- Highland Council 2012 *Highland Wide Local Development Plan*.
- Highland Council 2012 *Standards for Archaeological Work*.
- Highland Council 2013 *The Highland Council Supplementary Guidance: Historic Environment Strategy (Version that is recommended to the Planning, Environment and Development Committee (16 January 2013) to be statutorily adopted and issued)*.
- Highland Council 2013a *Visualisation Standards for Wind Energy Developments*.
- Historic Scotland 2010 *Managing Change in the Historic Environment: Setting*.
- Historic Scotland 2011 *Scottish Historic Environment Policy (SHEP)*.
- Hume, J R 1977a *The Industrial Archaeology of Scotland, 2, the Highlands and Islands*, London.
- Hume, J R 1977b 'Scottish suspension bridges', *Scot Archaeol Forum*, vol.8.
- ICOMOS 1999 *The Burra Charter*.
- ICOMOS 2005 *Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas*.
- Institute for Archaeologists 1994-5 *Institute for Archaeologists (IfA) Standards and Guidance for Desk Based Assessments, Field Evaluations, etc.*
- Lelong, O 2009 'Langwell Farm, Strath, Oykel, Sutherland, Highland (Kincardine parish), excavation', *Discovery Excav Scot*, New, vol.10 Cathedral Communications Limited, Wiltshire, England, 103.
- Macfarlane, W 1906-8 *Geographical Collections Relating to Scotland*, (ed. Mitchell, A & Clark, J T), 3 vols, Edinburgh.
- Mackay, J 1897 'History, Part 1', in Gunn, A and Mackay, J *Sutherland and the Reay Country*, Glasgow.
- Mackie, E W 2007 *The Roundhouses, Brochs and Wheelhouses of Atlantic Scotland c.700 BC-AD 500: architecture and material culture, the Northern and Southern Mainland and the Western Islands*, BAR British series 444(II), 444(1), 2 V Oxford.
- Mercer, R J 1980 *Archaeological Field Survey in Northern Scotland, 1976-1979*, University of Edinburgh, Department of Archaeology, Occasional Paper No. 4, Edinburgh.
- Nelson, G 1990 *Highland Bridges*, Aberdeen.
- NSA 1845 'Parish of Creich' by Rev. Murdo Cameron, in *The New Statistical Account of Scotland*, vol. 15 (Sutherland-Caithness-Orkney-Shetland-General Index), 17-23.
- Nisbet, H C 1973 'Langwell Tor a' Chorain: hill fort and vitrified dun', *Discovery Excav Scot*, 48-9.
- Nisbet, H C 1974 'Langwell, Tor a' Chorain: vitrified dun', *Discovery Excav Scot*, 59-60.
- RCAHMS 1911 *The Royal Commission on the Ancient and Historical Monuments and Constructions of Scotland. Second Report and Inventory of Monuments and Constructions in the County of Sutherland*, Edinburgh.
- Scottish Executive 2000 *Electricity Works (EIA) (Scotland) Regulations 2000*.
- Scottish Executive 2002 *PAN45 Renewable Energy Technologies*.
- Scottish Government 2011 *PAN2/2011 Planning and Archaeology*.
- Scottish Government 2011 *Town and Country Planning (Environmental Impact Assessment)(Scotland) Regulations 2011*.
- Scottish Government Energy Consents and Deployment Unit 2014 *Scoping Opinion: Caplich Wind Farm*.
- Scottish Government 2014 *SPP Scottish Planning Policy*.
- Scottish Natural Heritage 2009 *Siting and Designing Wind Farms in the Landscape*.
- UNESCO 2003 *Convention for the Safeguarding of the Intangible Cultural Heritage*.
- UNESCO 2009 *World Heritage Cultural Landscapes*.

Welsh, T C 1968 'Strath Oykell, by Lairg, vitrified fort', *Discovery Excav Scot*, 45

Wood, J & Dagg, C 2011 'Duchally and Rosehall, Balnagown Estate, Highland (Creich parish), desk-based assessment and walkover survey', *Discovery Excav Scot*, New, vol.12 Cathedral Communications Limited, Wiltshire, England, 102.

9.9.2

9.9.3 Cartographic References

c.1636-52 Gordon, Robert *Sutherland, Strath Okel & Strath Charron, Sutherland, Strath Oykell and Strathcarron*

1654 Blaeu, Joan *Southerlandia*, Amsterdam

1745 Moll, Herman *The Shires of Ross, and Cromartie*, London: Bowles and Bowles

1747-52 Roy, William *Military Survey of Scotland: Highlands*

1815 Anonymous *Sketch of the county of Sutherland showing the boundaries & divisions of the earldom of Sutherland*

1820 Forbes, William *Sutherlandshire*

1820 Thomson, J *Sutherland Shire*, Edinburgh: J. Thomson & Co

1855 Burnett, Gregory & Scott, William *Map of the county of Sutherland made on the basis of the trigonometrical survey of Scotland in the years 1831, 1832*, Edinburgh: W. & A. K. Johnson

1879 (Surveyed 1873) Ordnance Survey *Sutherland* Sheet C, 6 inch to the mile, First Edition

1879 (Surveyed 1873) Ordnance Survey *Sutherland* Sheet CI, 6 inch to the mile, First Edition

1879-81 (Surveyed 1873-4) Ordnance Survey *Sutherland* Sheet XCII 6 inch to the mile, First Edition

1906 (Revised 1903) Ordnance Survey *Sutherland* Sheet XCII 6 inch to the mile, First Edition

1906 (Revised 1903) Ordnance Survey *Sutherland* Sheet C, 6 inch to the mile, First Edition

1908 (Revised 1903) Ordnance Survey *Sutherland* Sheet CI, 6 inch to the mile, First Edition

1967 (Surveyed 1964) Ordnance Survey Sheet NC40 SW, 1:10,560

1967 (Surveyed 1964) Ordnance Survey Sheet NC30 SE, 1:10,560

1990 (Revised 1989) Ordnance Survey Sheet NC30 SE, 1:10,000

1990 (Revised 1989) Ordnance Survey Sheet NC40 SW, 1:10,000

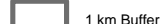

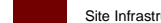
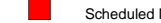
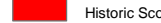

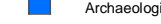

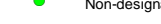
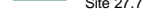
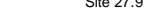
9.9.4 Photographic References

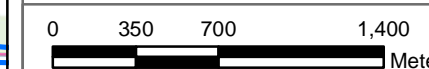
9.9.4.1 Vertical Aerial Photographs

Library Reference	Sortie	Frames	Date	Scale
B_0059	CPE/UK/0180	4374-4380	08/10/1946	1:11,600
B_0063	CPE/Scot/UK/0182	1049-1052; 1139-1143; 4054-4057	08/10/1946	1:9,600
B_0140	CPE/UK/0185	1072-1076; 2076-2079; 3074-3079	09/10/1946	1:9,600
B_0331	58/0794	4082-4086	02/10/1951	1:10,000
B_0335	58/0801	3110-3114; 3135-3143; 4143-4147	12/10/1951	1:10,000
C_0161	540/1267	F21: 205-206	09/03/1954	
B_0367	58/RAF/1424	F21: 276-277; F21: 303-307	23/04/1954	1:10,000
OS/62/089	OS/62/089	091-092; 107-108	14/08/1962	1:27,000
OS/76/206	OS/76/206	221-223	23/08/1976	1:26,000
OS/77/093	OS/77/093	290-292; 340-344; 376-377	11/07/1977	1:26,000
OS/86/134	OS/86/134	009-014	23/06/1986	
C_0250	ASS/628/88	241-243	23/06/1988	1:24,000
C_0290	ASS/618/89	092-094	19/05/1989	1:24,000

Caplich Wind Farm

Legend

-  1 km Buffer
-  Turbine Coordinates
-  Site Infrastructure Layout
-  Scheduled Monuments (SM)
-  Historic Scotland SM polygons
-  Listed Buildings
-  Archaeological Surveys
-  Archaeological Survey Areas
-  Non-designated Heritage Assets
-  Site 27.7
-  Site 27.9



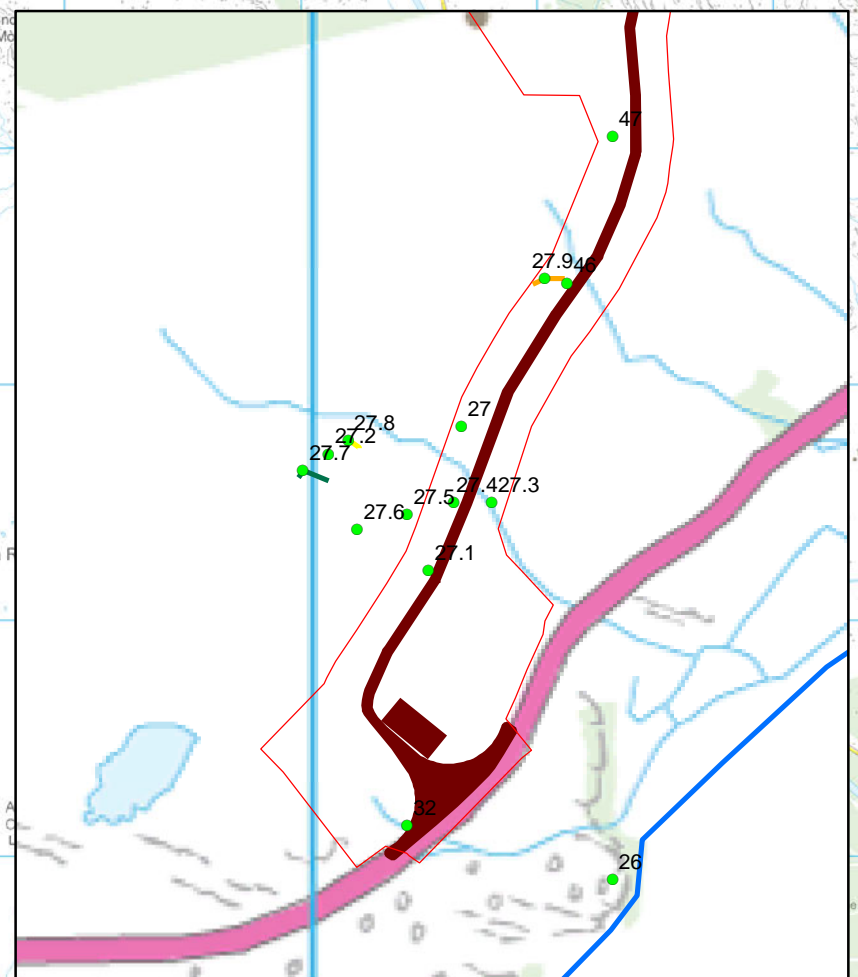
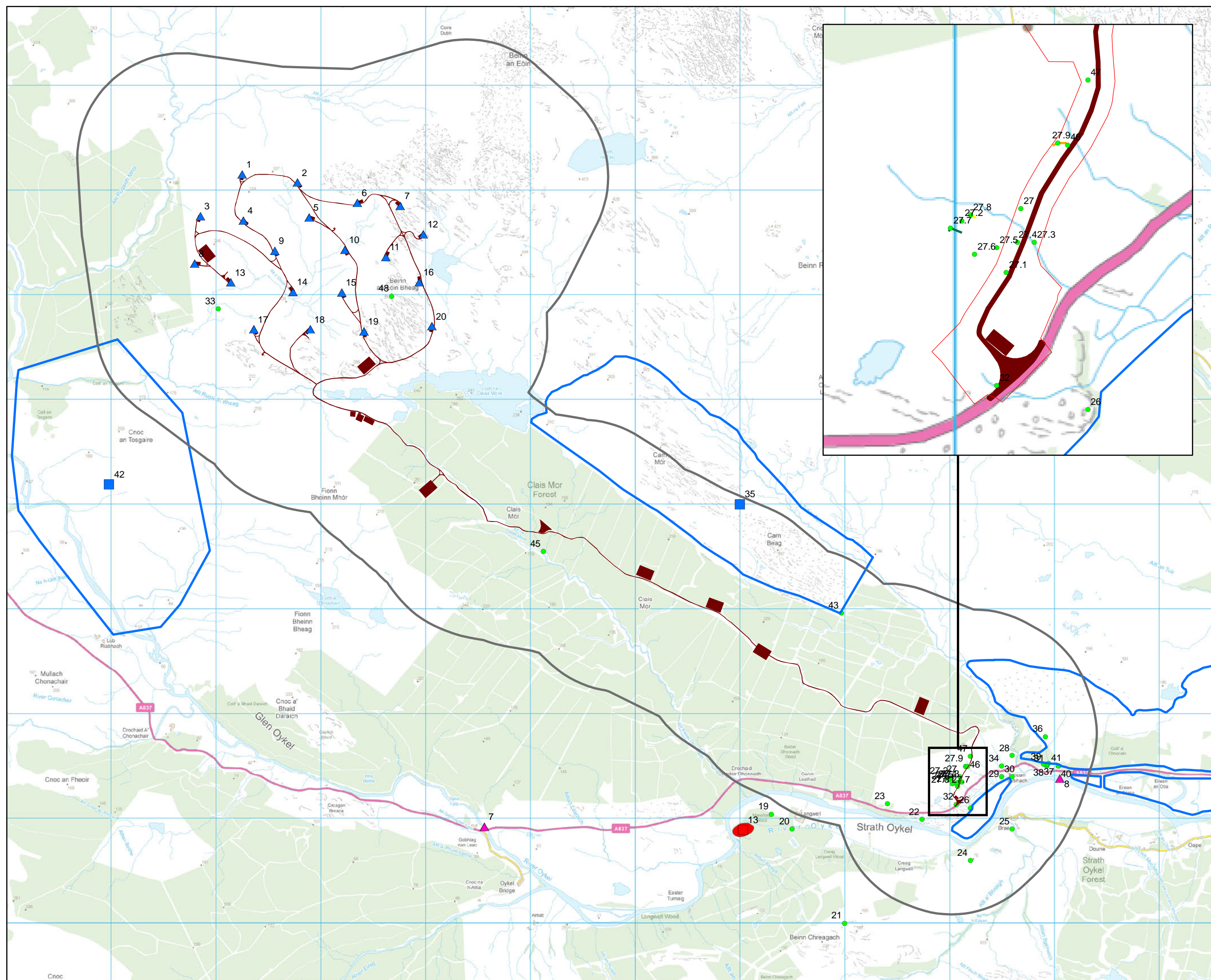
Scale @ A3 1: 32,000

Figures 9.1: Location of Caplich with heritage assets within 1 km

Date: 08.10.2014

Ref:

Drawn: MR



Caplich Wind Farm

Legend

- Red Line Boundary
- 5 km Buffer
- Scheduled Monuments
- Site of National Importance
- Listed Buildings

ZTV*

Value

- 0 turbines
- 1- 5 turbines
- 6-10 turbines
- 11-15 turbines
- 16-20 turbines

*The Zone of Theoretical Visibility (ZTV) has been calculated for a tip height of 132 m and assumes bare earth scenario with vegetation screening not accounted for.

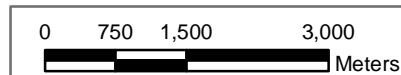


Figure 9.2: Designated Heritage Assets within c.5 km of Caplich

Date: 07.10.2014


Ref:

Drawn: MR



Caplich
Wind Farm

Legend

 Approximate Site Boundary



Not to exact scale

Figure 9.3: Extract from
map by Gordon, 1636-52

Date: 12.09.2014

Ref:

Drawn: MR



Caplich
Wind Farm

Legend

 Red Line Boundary

0 125 250 500 750 1,000
Meters

Scale @ A3 1:25,000

Figure 9.4: Extract from
map by Roy, 1747-52

Date: 12.09.2014

Ref:

Drawn: MR



Caplich
Wind Farm

Legend
Red Line Boundary



0 295 590 1,180 1,770 2,360
Meters

Scale @ A3 1:30,000

Figure 9.5: Extract from
map by Thomson, 1820

Date: 12.09.2014

Ref:

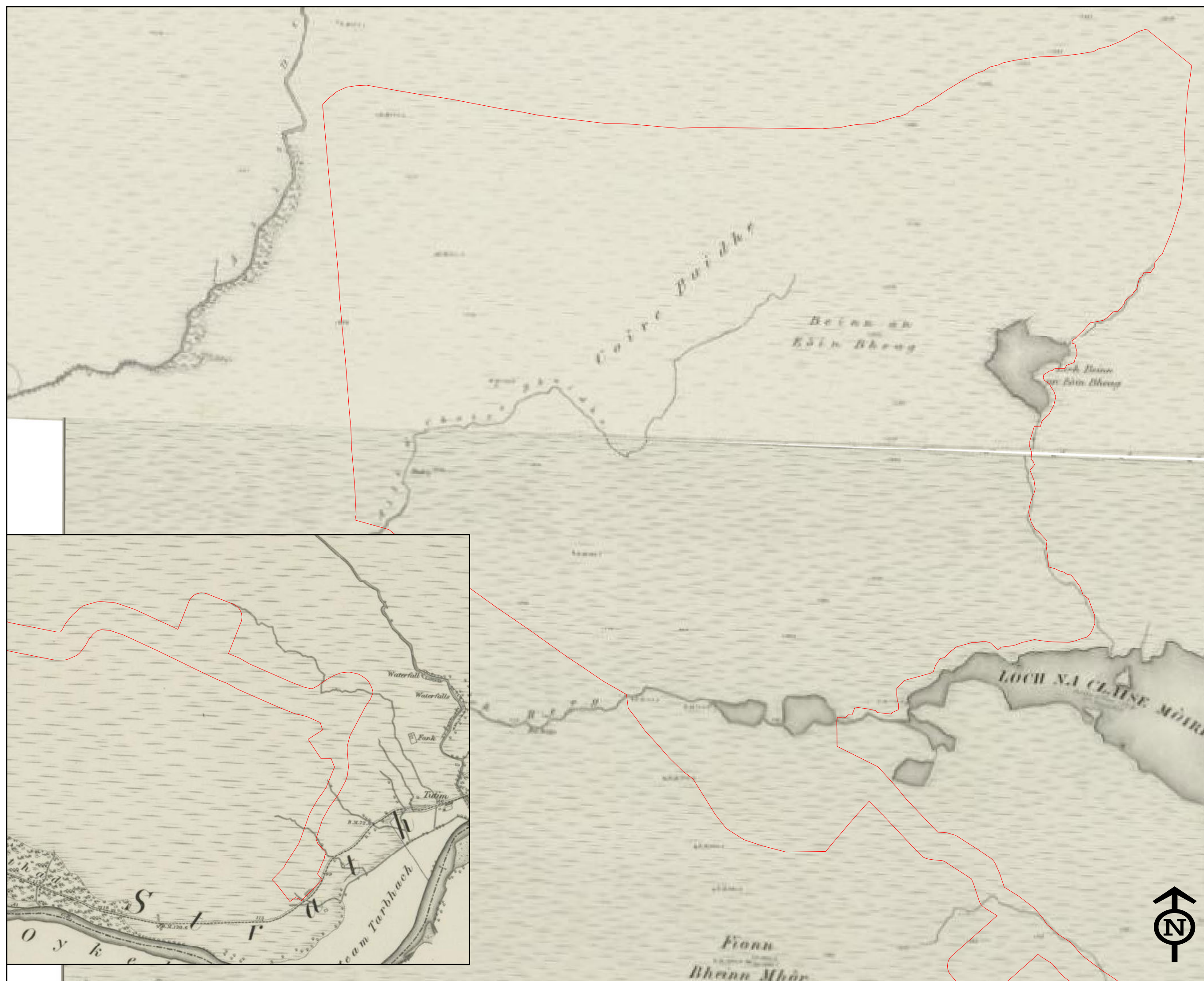
Drawn: MR



Caplich
Wind Farm

Legend

Red Line Boundary



0 50 100 200 300 400
Meters

Scale @ A3 1:12,000

Figure 9.6: Extract from map
by Ordnance Survey, 1879-81

Date: 12.09.2014

Ref:

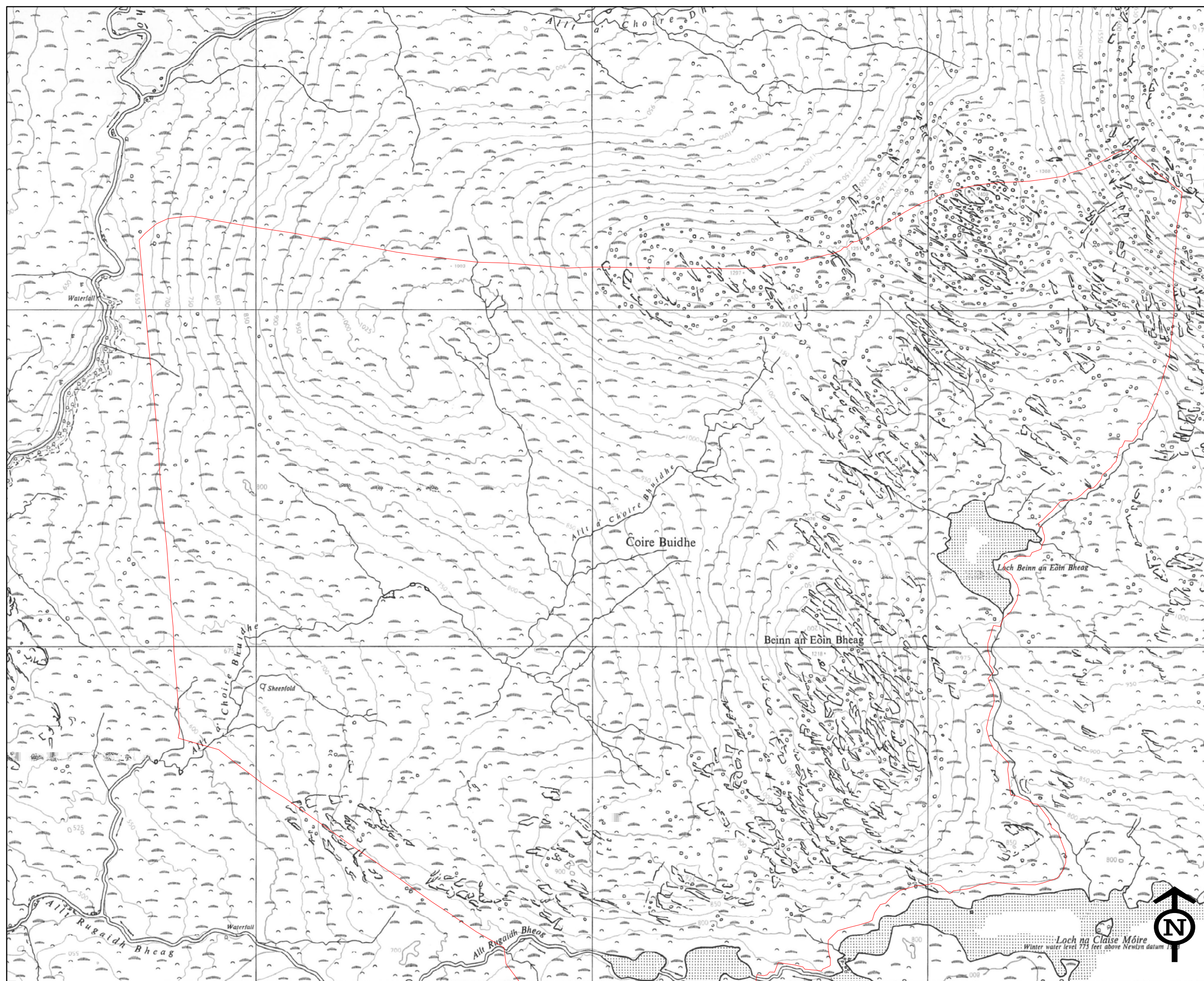
Drawn: MR



Caplich
Wind Farm

Legend

Red Line Boundary



0 50 100 200 300 400
Meters

Scale @ A3 1:10,000

Figure 9.7: Extract from map
by Ordnance Survey, 1967

Date: 12.09.2014

Ref:

Drawn: MR





**Cultural Heritage Viewpoint 1
Langwell Fort and Dun (Site 13)**

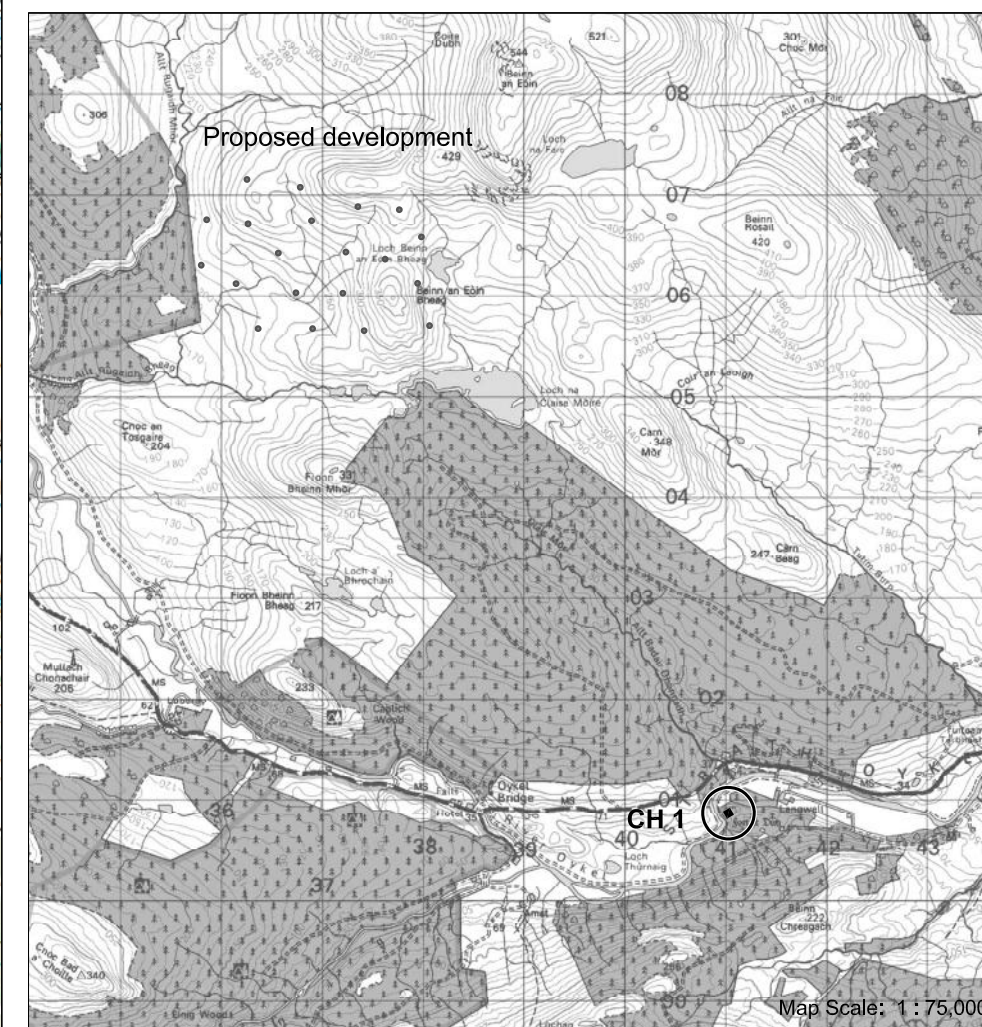
View towards turbines from Scheduled Area. Forestry Plantation present in front of turbines. Site occupies high ground to south of River Oykel and A837 and is accessible on foot.

Viewpoint Location

OS Reference:	241026, 900864
Terrain height AOD (from model) :	33 m
Distance to the nearest turbine:	5,673 m

A 65.5° Monocular View

Figure 9.8.1



View A

Photomontage



Photography information

Date:	23rd August 2014	Time:	11:50	Distance to nearest turbine:	5,673 m	Camera type:	Nikon D600	Focal length (horizontal):	28 mm	Focal length (vertical):	50 mm
						Camera height:	1.5 m	Horizontal Field of View:	65.5°	Vertical Field of View:	27°

Viewing Instructions*

The images contained on this page and the following page are not representative of scale and distance from the actual viewpoint and show the wind farm development in its wider landscape context only.

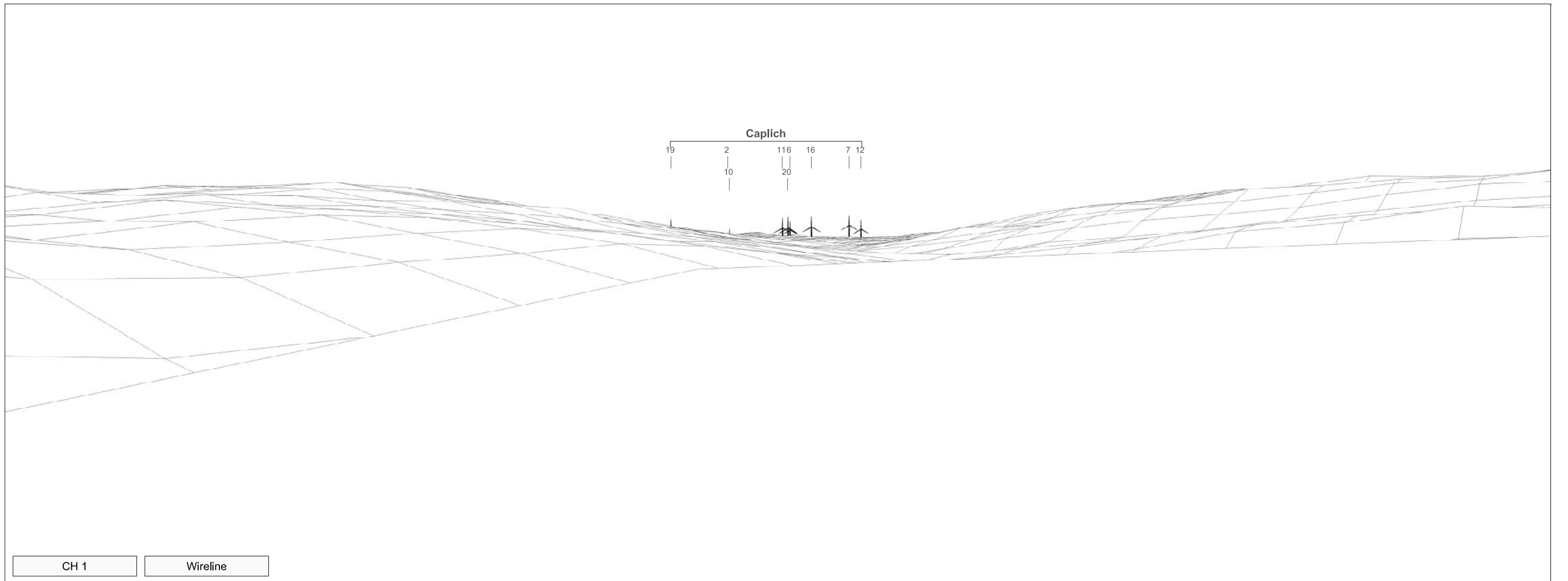
For empirical testing, the wireline image on the next page can be accurately assessed in the field when converted to a transparency.

If viewed with one eye at a distance of 300mm from exactly the same location and height as the original camera lens, the image will fit the real landscape cues.



CH 1

Existing View



CH 1

Wireline



**Cultural Heritage Viewpoint 4
Cnoc Chaornaidh, Chambered Cairn (Site 14)**

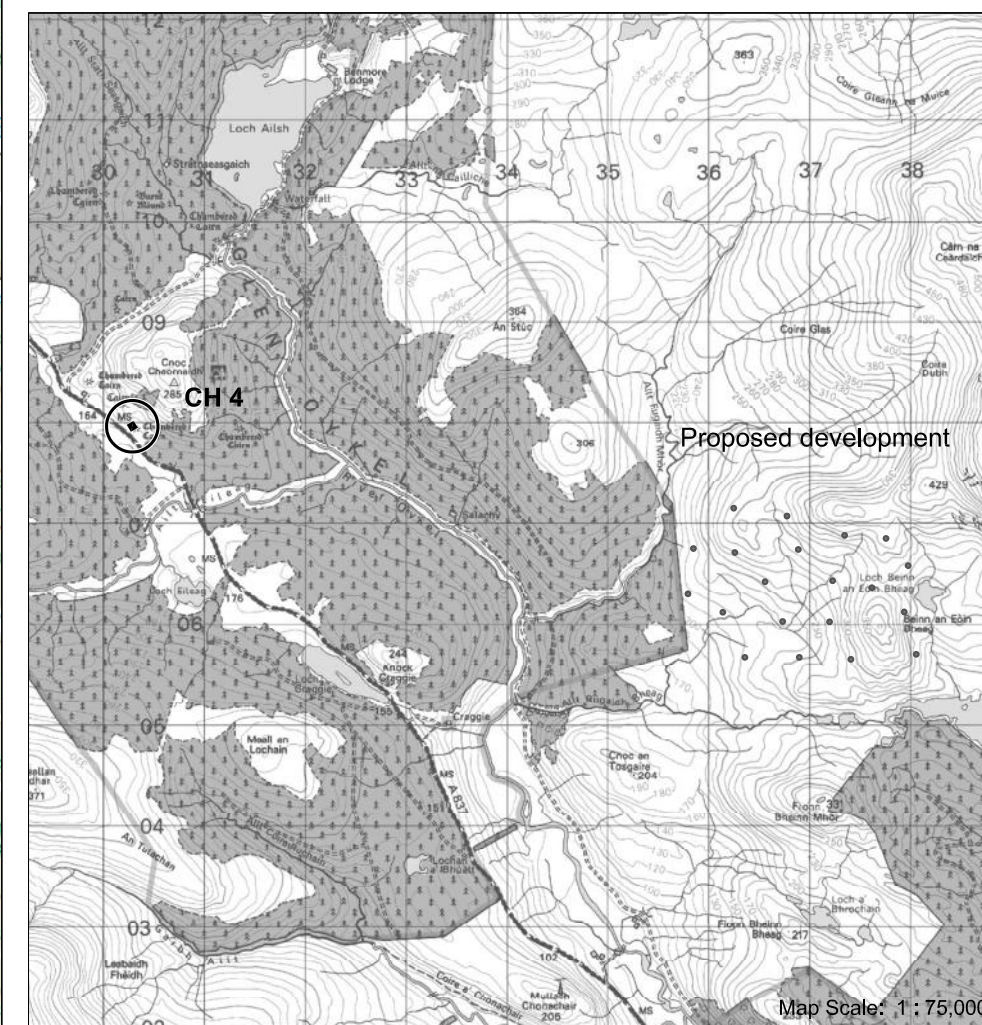
View from field across Cnoc Chaornaidh, Chambered Cairn from west towards turbines. Forestry plantation also visible on high ground to east. Site is located north of A837.

Viewpoint Location

OS Reference:	230283, 907962
Terrain height AOD (from model) :	169 m
Distance to the nearest turbine:	5,697 m

A 65.5° Monocular View

Figure 9.11.1



View A Photomontage



Photography information

Date:	15th August 2014	Time:	16:25	Distance to nearest turbine:	5,697 m	Camera type:	Nikon D600	Focal length (horizontal):	28 mm	Focal length (vertical):	50 mm
						Camera height:	1.5 m	Horizontal Field of View:	65.5°	Vertical Field of View:	27°

Viewing Instructions*

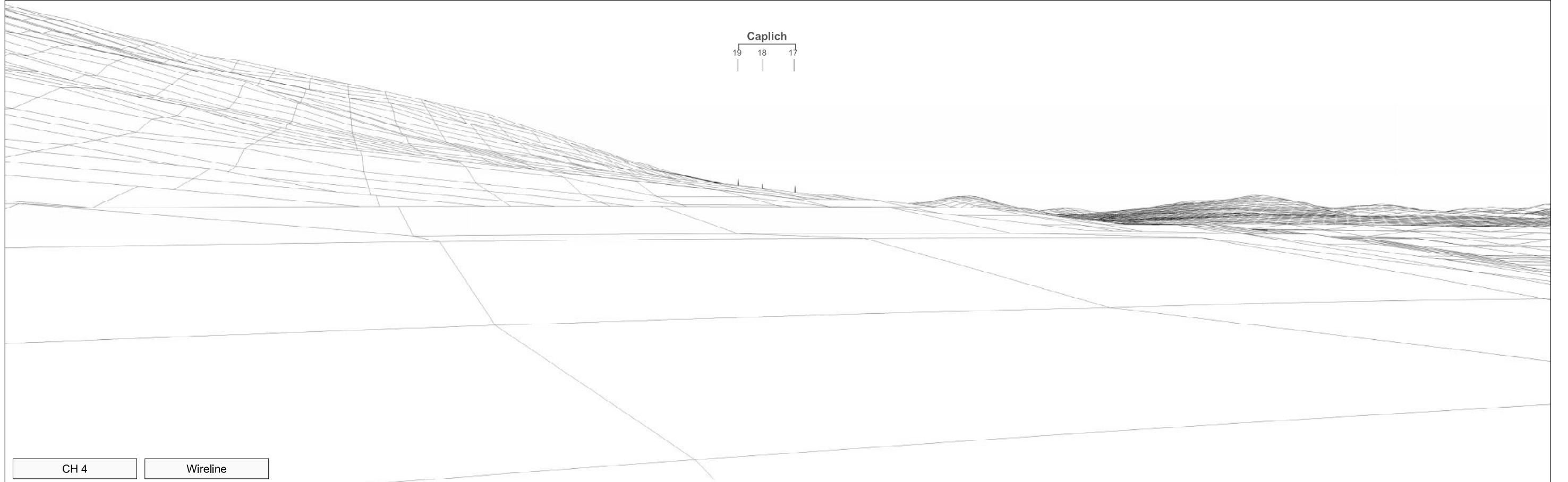
The images contained on this page and the following page are not representative of scale and distance from the actual viewpoint and show the wind farm development in its wider landscape context only.
 For empirical testing, the wireline image on the next page can be accurately assessed in the field when converted to a transparency.
 If viewed with one eye at a distance of 300mm from exactly the same location and height as the original camera lens, the image will fit the real landscape cues.

*Viewing Instructions from The Highland Council 'Visualisation Standards for Wind Energy Developments' May 2013



CH 4

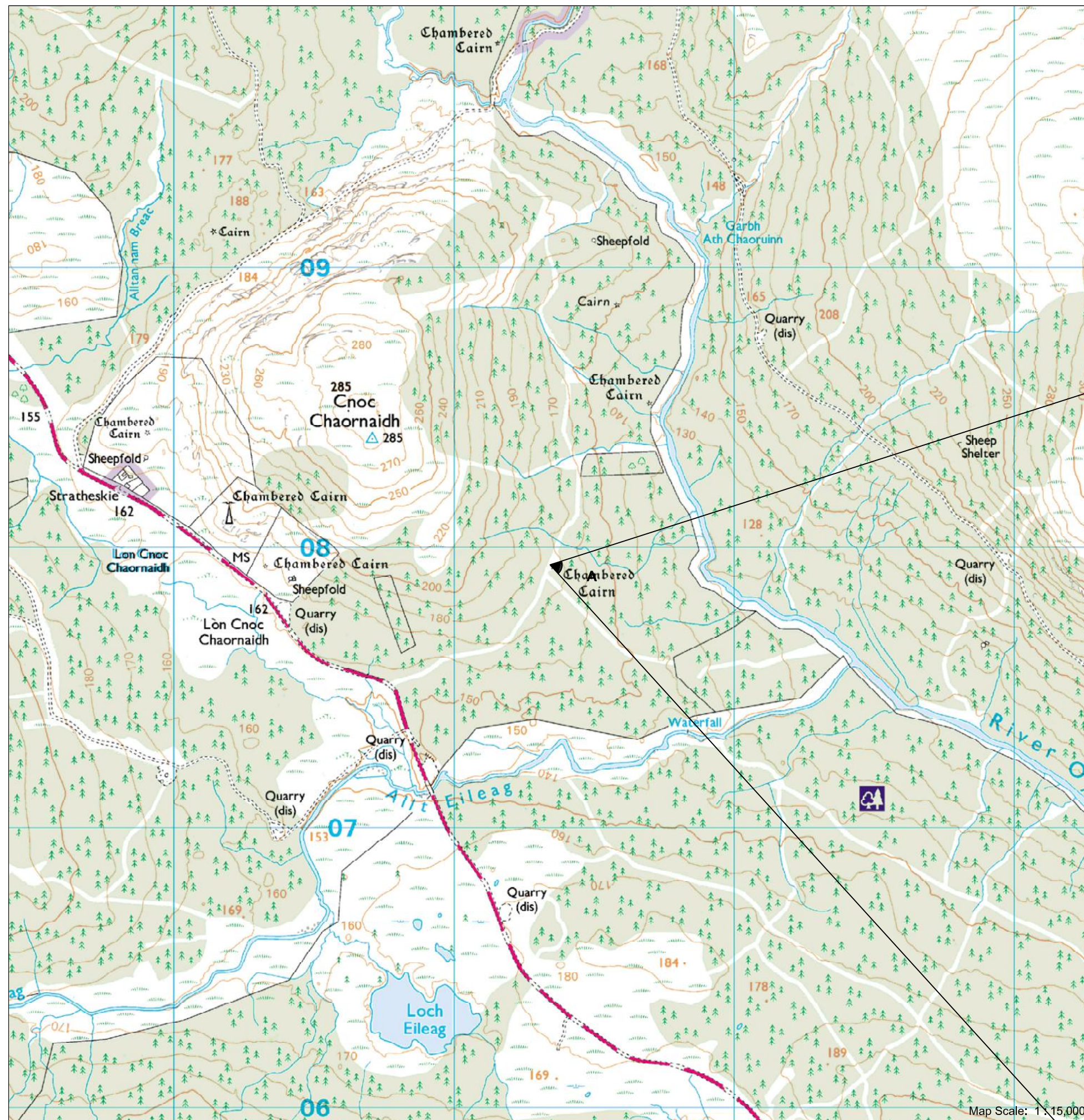
Existing View



Caplich
19 18 17

CH 4

Wireline



**Cultural Heritage Viewpoint 3
Allt Eileag, Chambered Cairn (Site 18)**

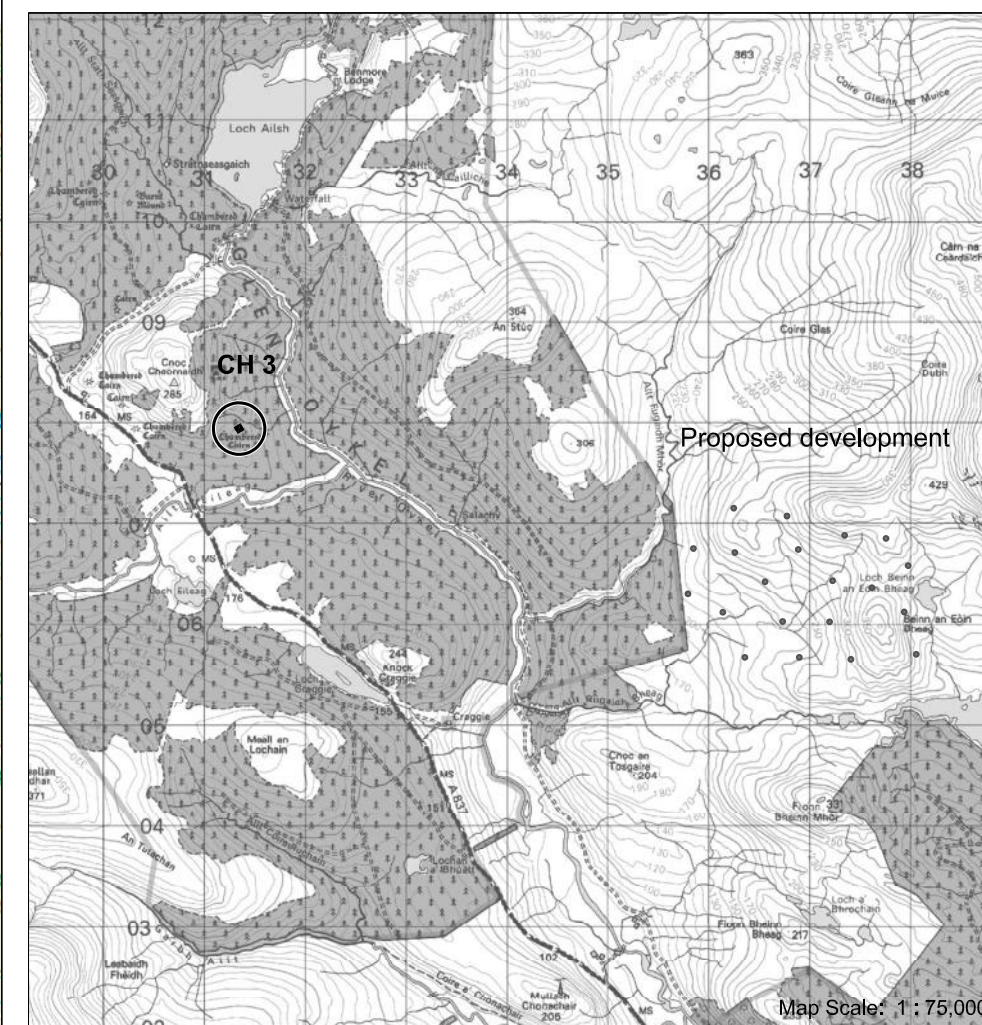
View from within forestry clearing and adjacent to Allt Eileag, Chambered Cairn towards turbines to east. Forestry plantation present to east.

Viewpoint Location

OS Reference:	231343, 907939
Terrain height AOD (from model) :	175 m
Distance to the nearest turbine:	4,661 m

A 65.5° Monocular View

Figure 9.10.1



View A Photomontage



Photography information

Date:	23rd August 2014	Time:	13:25	Distance to nearest turbine:	4,661 m	Camera type:	Nikon D600	Focal length (horizontal):	28 mm	Focal length (vertical):	50 mm
						Camera height:	1.5 m	Horizontal Field of View:	65.5°	Vertical Field of View:	27°

Viewing Instructions*

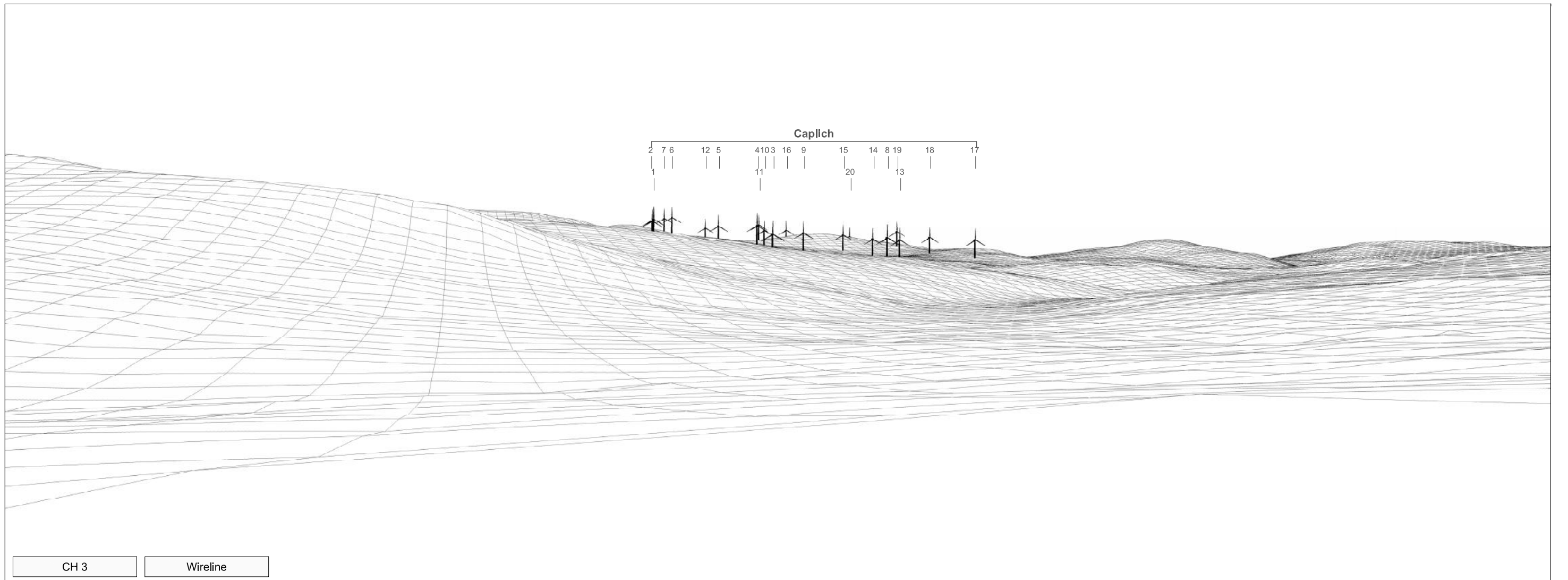
The images contained on this page and the following page are not representative of scale and distance from the actual viewpoint and show the wind farm development in its wider landscape context only.
 For empirical testing, the wireline image on the next page can be accurately assessed in the field when converted to a transparency.
 If viewed with one eye at a distance of 300mm from exactly the same location and height as the original camera lens, the image will fit the real landscape cues.

*Viewing Instructions from The Highland Council 'Visualisation Standards for Wind Energy Developments' May 2013



CH 3

Existing View



CH 3

Wireline



**Cultural Heritage Viewpoint 4
Cnoc Chaornaidh, Chambered Cairn (Site 14)**

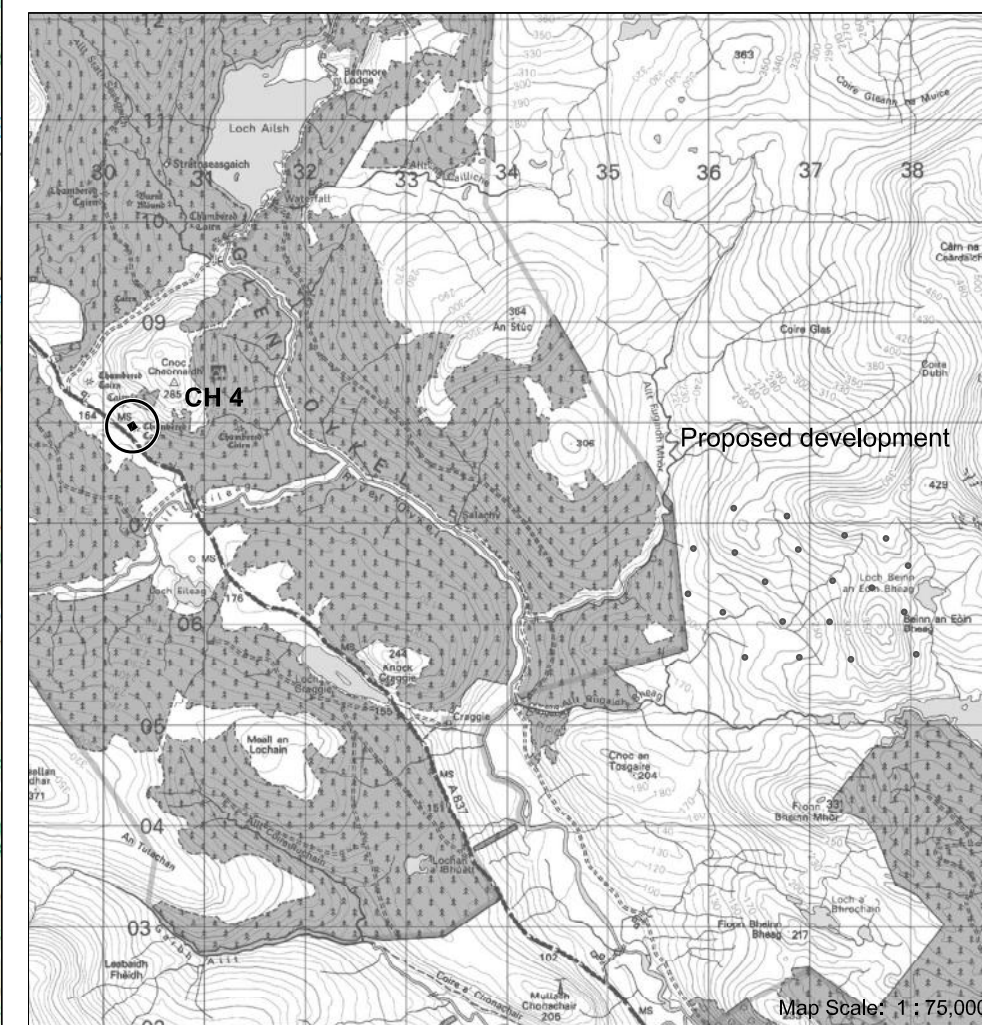
View from field across Cnoc Chaornaidh, Chambered Cairn from west towards turbines. Forestry plantation also visible on high ground to east. Site is located north of A837.

Viewpoint Location

OS Reference:	230283, 907962
Terrain height AOD (from model) :	169 m
Distance to the nearest turbine:	5,697 m

A 65.5° Monocular View

Figure 9.11.1



View A

Photomontage



Photography information

Date:	15th August 2014	Time:	16:25	Distance to nearest turbine:	5,697 m	Camera type:	Nikon D600	Focal length (horizontal):	28 mm	Focal length (vertical):	50 mm
						Camera height:	1.5 m	Horizontal Field of View:	65.5°	Vertical Field of View:	27°

Viewing Instructions*

The images contained on this page and the following page are not representative of scale and distance from the actual viewpoint and show the wind farm development in its wider landscape context only.

For empirical testing, the wireline image on the next page can be accurately assessed in the field when converted to a transparency.

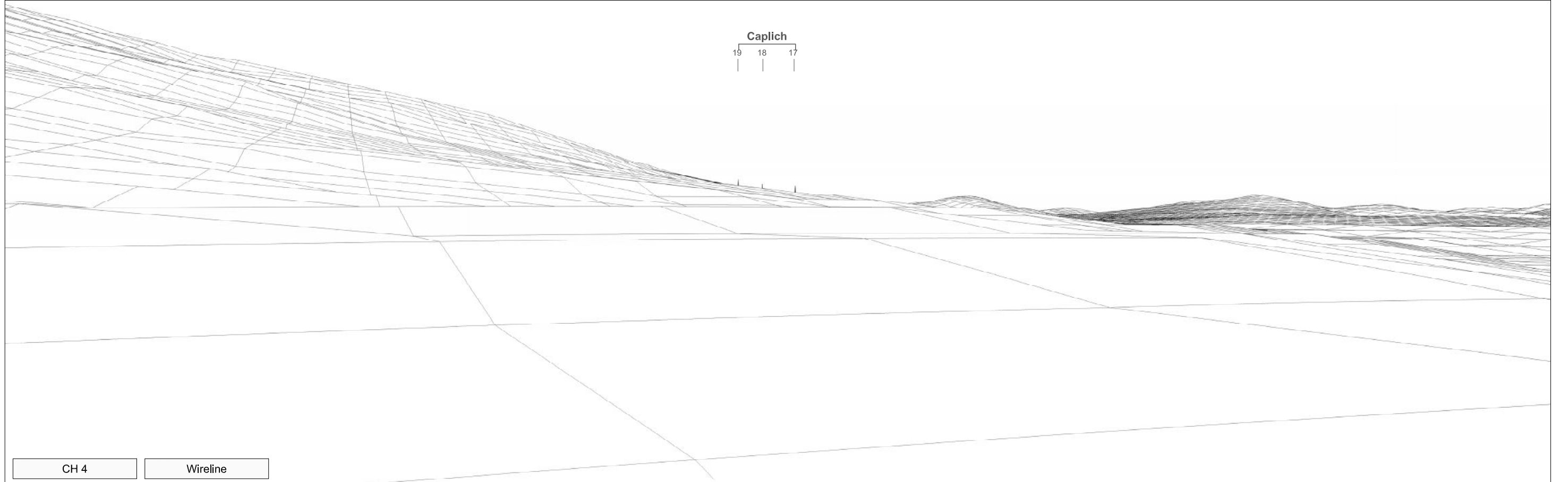
If viewed with one eye at a distance of 300mm from exactly the same location and height as the original camera lens, the image will fit the real landscape cues.

*Viewing Instructions from The Highland Council 'Visualisation Standards for Wind Energy Developments' May 2013



CH 4

Existing View



Caplich
19 18 17

CH 4

Wireline

**Cultural Heritage Viewpoint 5
Strathseasgaich, Chambered Cairn (Site 11)**

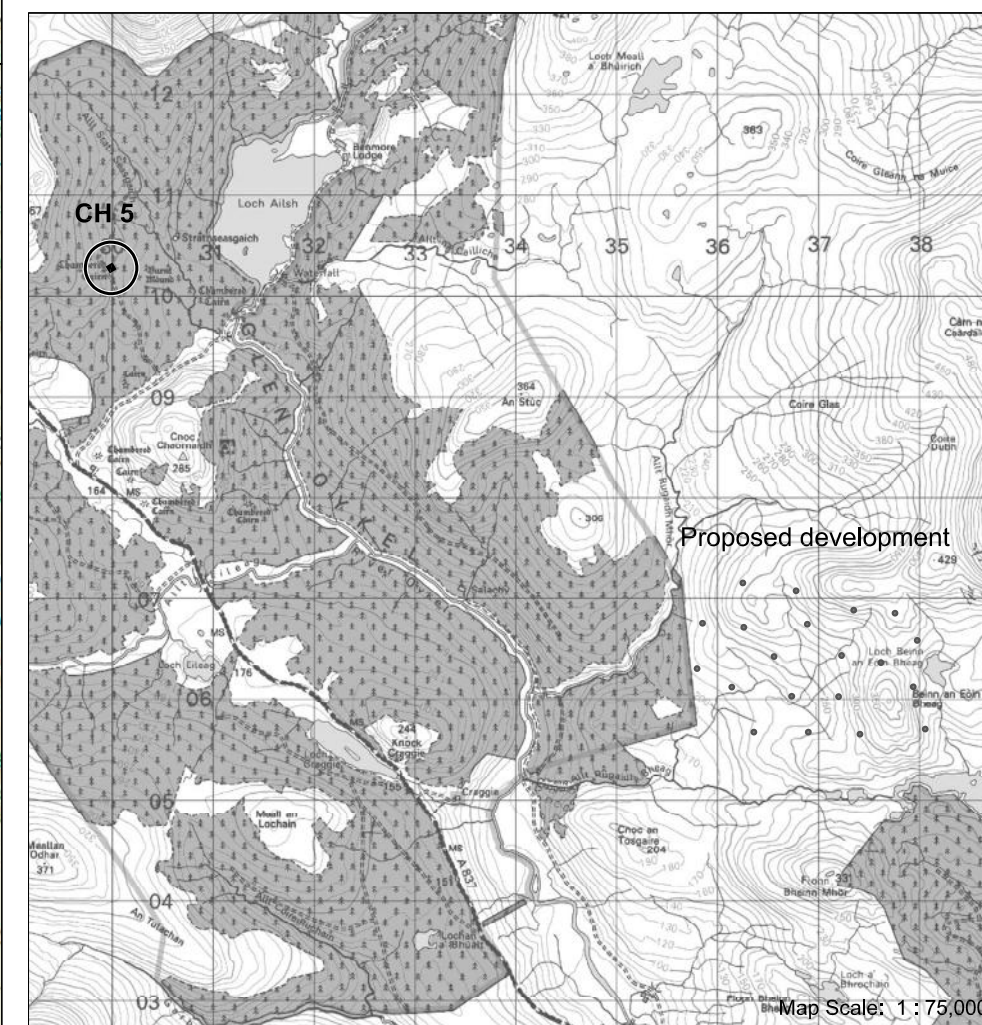
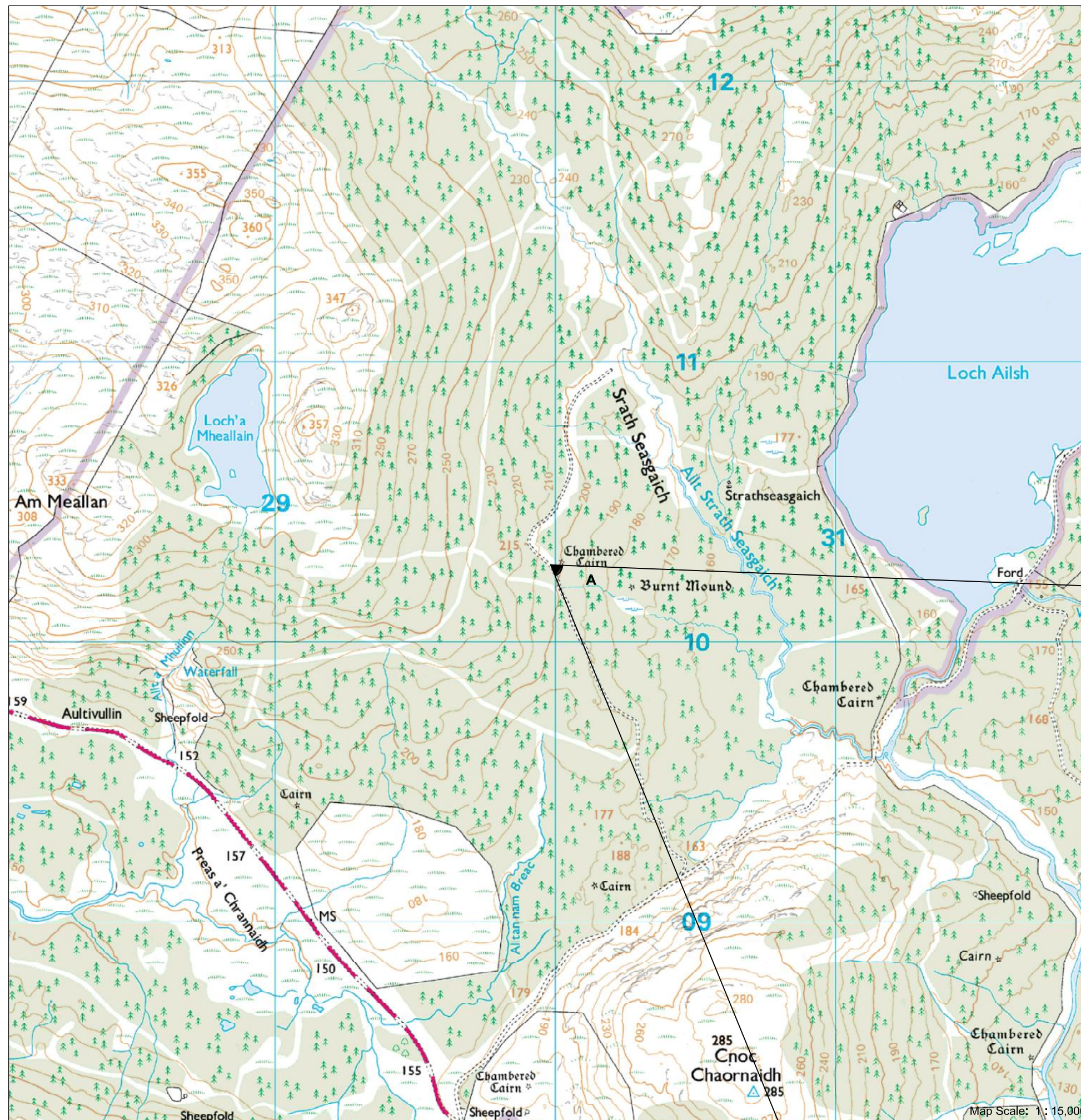
View from within clearing in forestry, adjacent to Strathseasgaich, Chambered Cairn towards turbines to southeast. Areas of forestry plantation also present in view. Site is accessible from forestry track.

Viewpoint Location

OS Reference:	229983, 910275
Terrain height AOD (from model) :	204 m
Distance to the nearest turbine:	6,844 m

A 65.5° Monocular View

Figure 9.12.1



View A Photomontage



Photography information

Date:	23rd August 2014	Time:	15:30	Distance to nearest turbine:	6,844 m	Camera type:	Nikon D600	Focal length (horizontal):	28 mm	Focal length (vertical):	50 mm
						Camera height:	1.5 m	Horizontal Field of View:	65.5°	Vertical Field of View:	27°

Viewing Instructions*

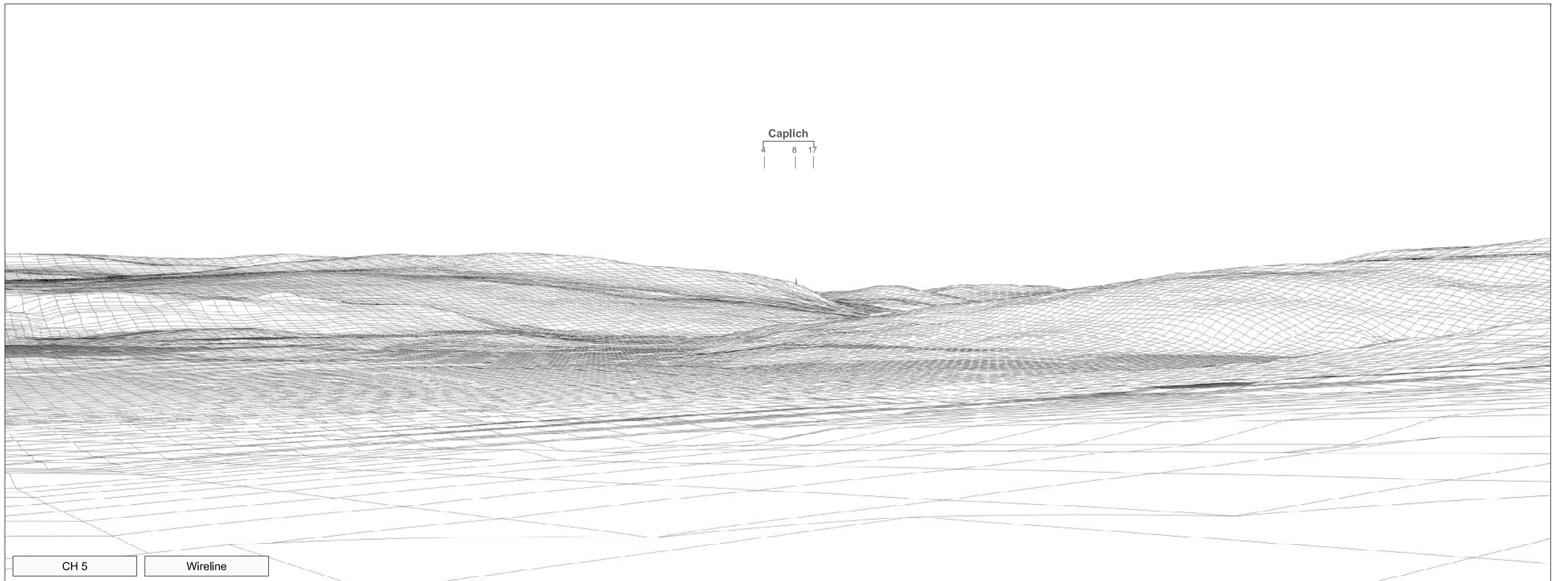
The images contained on this page and the following page are not representative of scale and distance from the actual viewpoint and show the wind farm development in its wider landscape context only.
 For empirical testing, the wireline image on the next page can be accurately assessed in the field when converted to a transparency.
 If viewed with one eye at a distance of 300mm from exactly the same location and height as the original camera lens, the image will fit the real landscape cues.

*Viewing Instructions from The Highland Council 'Visualisation Standards for Wind Energy Developments' May 2013



CH 5

Existing View



Caplich
4 8 17

CH 5

Wireline



**Cultural Heritage Viewpoint 6
Rosehall Free Church (Site 4)**

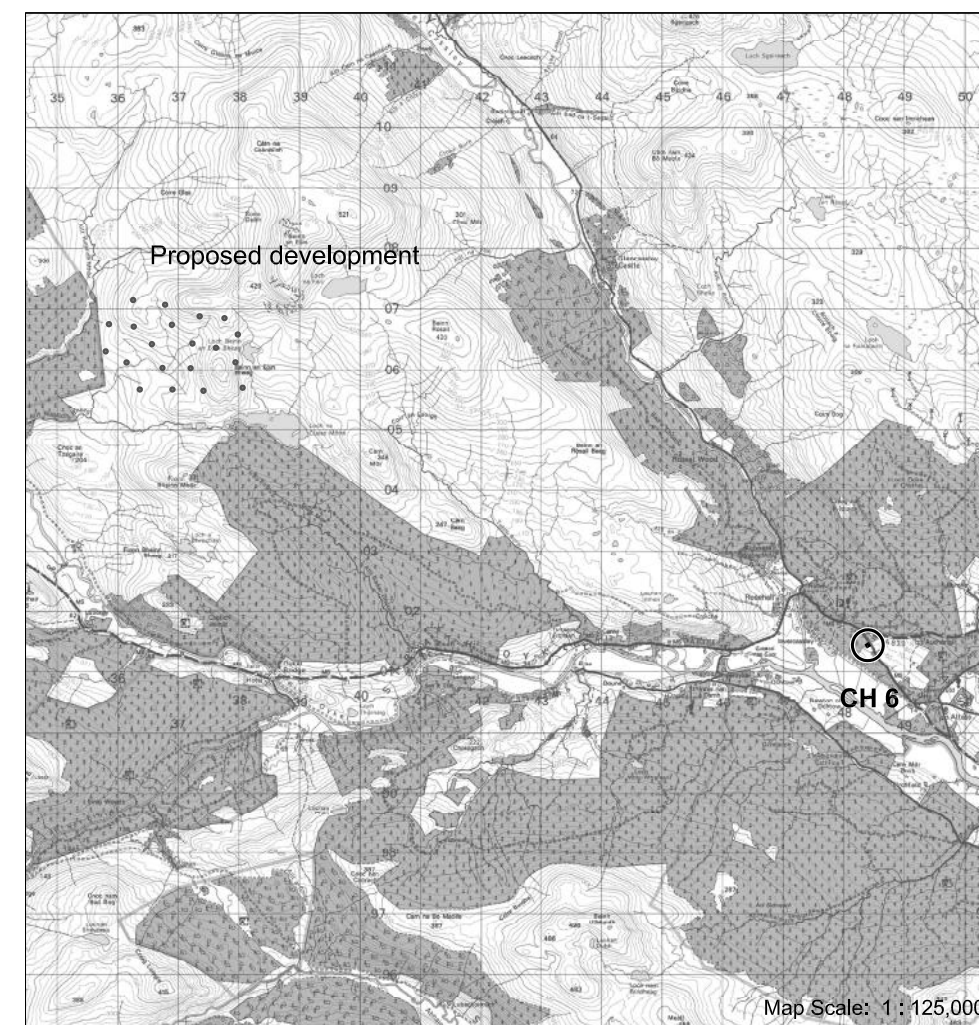
View from rear (west side) of Rosehall Free Church towards turbines, from within the grounds of the church.

Viewpoint Location

OS Reference:	248397, 901442
Terrain height AOD (from model) :	60 m
Distance to the nearest turbine:	11,179 m

A 65.5° Monocular View

Figure 9.13.1



View A

Photomontage



Photography information

Date:	16th October 2014	Time:	10:10	Distance to nearest turbine:	11,179 m	Camera type:	Nikon D700	Focal length (horizontal):	28 mm	Focal length (vertical):	50 mm
						Camera height:	1.5 m	Horizontal Field of View:	65.5°	Vertical Field of View:	27°

Viewing Instructions*

The images contained on this page and the following page are not representative of scale and distance from the actual viewpoint and show the wind farm development in its wider landscape context only.

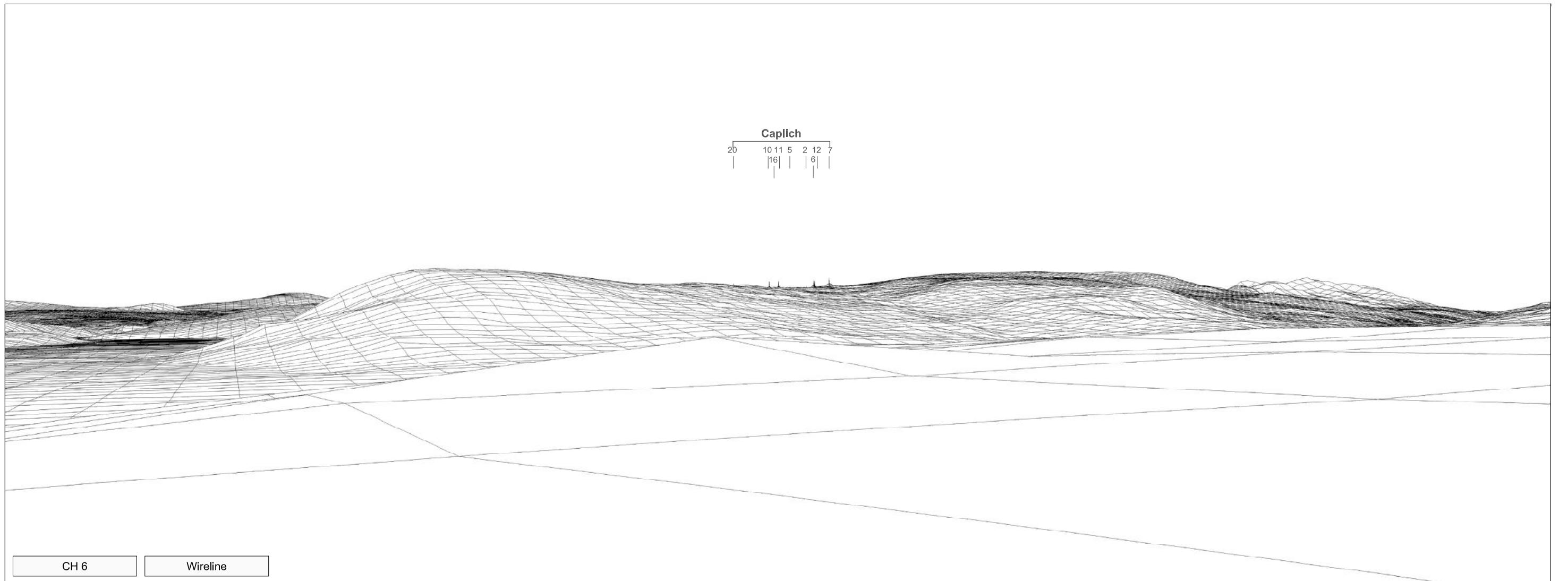
For empirical testing, the wireline image on the next page can be accurately assessed in the field when converted to a transparency.

If viewed with one eye at a distance of 300mm from exactly the same location and height as the original camera lens, the image will fit the real landscape cues.



CH 6

Existing View



Caplich
20 10 11 5 2 12 7
| 16 | | 6 | |

CH 6

Wireline

Technical Appendix 9.1: Site Gazetteer

[Reproduced from AOC Archaeology Group Doc. I.D Caplich Site Gazetteer]

Site Number	1
Site Name	Creich, broch 1600 m NW of, Glen Cassley
Type of Site	Broch (Iron Age - 550 BC to 560 AD)
NMRS Number	NC41SW 1
HER Number	MHG11897
Status	Scheduled Monument 1852
Easting	241162
Northing	911214
Parish	Creich
Council	Highland
Description	Prehistoric domestic and defensive

NC41SE 1 4116 1121

(NC 4116 1121) Broch (NR)
OS 6" map, (1967).

The remains of a broch set on the slope of the hill, with the ground falling sharply from the site on the north and east. The interior is filled with debris, the wall being nowhere visible for more than 5 ft above it, reaching a maximum height of 11 ft externally and about 17 ft internally on the NW. The south has been heavily robbed to build sheepfolds. The entrance passage in the east is still intact at its inner end and is 18 ft 6 ins long, with a guard chamber on the north. An oval mural chamber 7 ft south of the entrance is entered from the central court, as is a gallery which is visible within the wall on the S and W (RCAHMS 1911, 19, No. 49; visited 1909).

The broch still stands to a height of 3.5 m on the NW and has an overall diameter of 17.8 m.

Visited by OS (E G C), 7 April 1963.

The broch is as described above, although none of the internal features are particularly well-defined, all being obscured by tumbled stones.
Visited by OS (J B), 30 September 1976.

Project Euan W Mackie Broch Corpus 2

Notes NC41 1 DAIL LANGWELL
NC/4116 1121

This unexcavated broch in Creich, Sutherland, stands on the west side of Glencassley about 7.5 miles above the junction of the rivers Cassley and Oykel (visited 7/7/85). The huge mound of stone sits on a hillock on a slope about 24m (80ft) above the river. There are no modern stone buildings anywhere near except for some large sheep enclosures built next to the broch on the south-east side.

The structure is full of debris and dilapidated but the wall stands 3.36m (11ft) high on the upstream or north-west side, where the inner face is some 2m higher than the outer. On this side there is a stretch of lintelled intra-mural gallery the roof of which is not far below the top of the adjacent internal wallface. Because of the height of the wall it must be an upper gallery, thus making Dail Langwell a true hollow-walled broch. The inner wallface is even higher on the opposite side. No trace of a scarcement can be seen on the inner face, and the evident height of the wall suggests that it is still buried under the debris in the interior.

The entrance was clearly visible on the east side in 1909 [2] but is hard to trace now; its outer end is presumably hidden by the sheep pens. It is evidently about 5.64m (18ft 6in) long and

the inner end was intact; it was then still lintelled over for a distance of 3.0m (10ft). The doorway to a guard cell on the right of the passage was visible 2.59m (8ft 6in) from the exterior, and the roof of its corbelled chamber then also seemed to be intact; no trace of this cell was observed in 1985. A pair of door-checks were visible 1.22m (4ft) inwards from the doorway to this cell so there ought to be another door-frame further forward and hidden by debris. The space between the visible pair is 51cm (20in) and they are composed of 10cm (4in)-thick slabs set at right angles into the wall and projecting slightly from it. A bar-hole and -socket were seen behind the checks and the right hole seemed to lead into the guard cell.

All the other features described in 1909 are still visible. South of the entrance part of an oval mural cell can be seen – probably at about 7.30 o'clock – and the parts of the upper mural gallery about 1.07m (3ft 5in) wide on the north and north-west have already been mentioned. A raised void to the interior can be seen next to the north sector, at about 3 o'clock. On the south side is another stretch of roofed upper gallery with one huge lintel spanning it at about 9 o'clock; this measures 2.13m (7ft) long, 61cm (2ft) wide and 25cm (10in) thick. There is another raised lintelled void to the interior here. Some of the stones in the wall are very large; one on the south is 1.52m (5ft) long by 91cm (3ft) wide by 30cm (1ft) thick: its upper edge is 1.52m (5ft) above the ground.

Dimensions (taken from [2]); the internal diameter is c. 9.46m (31ft), the wall is about 5.64m (18.5ft) thick at the entrance so the overall diameter is probably about 20.74m (68ft). The wall proportion might therefore be about 54.5%.

Sources: 1. NMRS site no. NC41SW 1: 2. RCAHMS 1911a, 19, no 49 (MacKie 2007).

Notes NC 4329 0228 and NC 3856 1595 A desk-based assessment and walkover survey were carried out, 15 December 2010–1 April 2011, in advance of a native woodland planting scheme. The scheme consists of five planting areas. Areas 1–3 centred on Dalnaclave (NC 3856 1595) and areas 4–5 centred on Carn Beag, Rosehall (NC 4329 0228). The survey covered a c815ha area and the land ranged in height from 16m above sea level at Rosehall to 260m N of Dubh Coille.

The desk-based assessment identified two scheduled ancient monuments, Croich Broch (NC 4116 1121) and Langwell Fort and Dun (NC 4104 0084), whilst the survey identified land use features, which predated the sheep and deer forest. A number of features were marked out and exclusion zones defined. The protection of features from the effect of regenerating vegetation will be included in any management plan.

Archive: RCAHMS

Funder: CKD Galbraith

Highland Archaeology Services, 2011 (Wood and Dagg 2011).

Survival: Visible Feature (>1 m (undated))

Site Number	2
Site Name	Rosehall Cassley Bridge over River Cassley (Rosehall, Cassley Bridge)
Type of Site	Road Bridge
NMRS Number	NC40SE 11
HER Number	MHG11877
Status	Listed Building; Category B
Easting	247181
Northing	902274
Parish	Creich
Council	Highland
Description	Historic Building No. 277.

This building is in the Highland Council and the Creich Parish. It is a category B building and was listed on 18/03/1971.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 471 023.

Description

Circa 1830. Double span rubble bridge, with dressed rubble arched rings and triangular cutwaters; dressed rubble parapet cope and splayed approach; shallow end buttresses.

References

John Hume, THE INDUSTRIAL ARCHAEOLOGY OF SCOTLAND, ii, (1977) p.312 (Listed Building report).

NC40SE 11 47181 02274

Cassley Bridge [NAT]

OS (GIS) MasterMap, May 2010.

(Location cited as NC 471 023). Bridge, Rosehall. A 2-span bridge with segmental arches and triangular cutwaters (Hume 1977, 312).

(Location cited as NC 472 023). Rosehall Bridge is of a similar date (1823) and style to that at Inveran (NC40SE 11), but remains in use. It has two unequal spans with triangular cutwaters and is built of rubble, but the voussoirs and cutwaters are dressed. The parapet, unusually, is higher at the ends than in the centre, and curves neatly down to the road (Nelson 1990, 155).

This bridge carries the A837 public road over the River Cassley, a short distance above its junction with the River Oykel.

Information from RCAHMS (RJCM), 6 May 1998.

BRIDGE (Post Medieval - 1560 AD to 1900 AD)

Site Number	3
Site Name	Rosehall, North Lodge and Adjoining Walls
Type of Site	Lodge (19th Century)
NMRS Number	NC40SE 28
HER Number	MHG17015 & MHG43590
Status	Listed Building; Category C
Easting	248000
Northing	901810
Parish	Creich
Council	Highland
Description	Historic Building No. 276.

This building is in the Highland Council and the Creich Parish. It is a category C building and was listed on 07/03/1984.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 479 017.

Description

Lodge; early 19th century single storey, square rubble gate lodge, with harled west and south elevations. Centre door in west elevation with narrow flanking windows; lean-to extension to south elevation. Single window in north elevation (facing road); varied glazing; single bay extension to east incorporated in abutting wall. Pyramidal slate roof terminating in centre apex stack. Walls; high coped rubble walls about lodge at west and east, breaking (without gate piers) at centre entrance pair cast-iron gates. Pedestrian entrance to left of gates, and also to left of lodge. Ball finials top coping to right (west).

Notes

Drive serves Rosehall House only as grassy track (Listed Building report).

NC40SE 28 48000 01810

Project Buildings at Risk Register BARR

Notes

Single storey, square rubble gate lodge, with harled west and south elevations. Centre door in west elevation with narrow flanking windows; lean-to extension to south elevation. Single window in north elevation (facing road); varied glazing; single bay extension to east incorporated in abutting wall. Pyramidal slate roof terminating in centre apex stack. Walls; high coped rubble walls about lodge at west and east, breaking (without gate piers) at centre entrance pair cast-iron gates. Pedestrian entrance to left of gates, and also to left of lodge. Ball finials top coping to right (west) (Historic Scotland)

BARR website <http://www.buildingsatrisk.org.uk/details/927818>

LODGE (Post Medieval - 1560 AD to 1900 AD)

WALL (Undated)

Site Number	4
Site Name	Rosehall Free Church (Rosehall, United Free Church)
Type of Site	Church
NMRS Number	NC40SE 24
HER Number	MHG17037
Status	Listed Building; Category C
Easting	248402
Northing	901448
Parish	Creich
Council	Highland
Description	Historic Building No. 278.

This building is in the Highland Council and the Creich Parish. It is a category C building and was listed on 07/03/1984.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 483 014.

Description

Circa 1844. Simple rectangular church, rubble with tooled ashlar dressings. Round headed entrance in centre, east gable; 2 round headed windows in north and 4 in south elevation, all with lattice pane glazing. Slightly later hexagonal Ministers' porch of harled rubble at centre of south elevation, with hexagonal piended roof terminating with wooden finial. Rectangular bellcote plinth at east gable apex; ball finial at west apex; flat skewers and square skewputts;

slate roof; stone ridge. Simple drystone wall fronts church; pair cast-iron gates with spear-head detailing and plain monolith stone piers.

Notes

Building in ecclesiastical use as such. Now divided in half internally, and re-cast to west. The Rev Gustavus Aird (1813-98) "came <> at Croick, 1843, and subsequently became Free Church Minister at Creich (Migdale).

References

Alexander MacRae, THE LIFE OF GUSTAVUS AIRD, MA, DD. (no date, circa 1900) p.119. Ewing, ANNALS OF THE FREE CHURCH ii (1906) p.221 (Listed Building report).

NC40SE 24 48402 01448

Church [NAT]

OS (GIS) MasterMap, May 2010.

FREE CHURCH (Built, 19th Century - 1844 AD to 1844 AD (circa))

Site Number	5
Site Name	Rosehall House and Walled Garden (Rosehall House)
Type of Site	Country House (19th Century)
NMRS Number	NC40SE 23
HER Number	MHG17007 & MHG41075
Status	Listed Building; Category B
Easting	247487
Northing	901585
Parish	Creich
Council	Highland
Description	Historic Building No. 275.

This building is in the Highland Council and the Creich Parish. It is a category B building and was listed on 18/03/1971.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 47488 01575.

Description

1818-25, dated 1822 but probably incorporating earlier fabric, 'improvements' by Alexander Ross, 1873 (see Notes). Symmetrical 2-storey 7-bay classical mansion with projecting 2-storey and single storey rear wings forming shallow U-plan, partly infilled with later servant's passage additions. Unique notable late 1920s interior scheme designed by Coco Chanel (see Notes). Coursed grey and pink freestone with honey-coloured Moray sandstone dressings. Ribbon pointing. Deep eaves. In poor repair (2006).

SOUTH (PRINCIPAL) ELEVATION: slightly advanced central 5-bay block with central wide corniced doorpiece with 4-panel timber 2-leaf door with rectangular margined fanlight above and flanked by narrow sidelights between paired Roman Doric pilasters. Above, blind 1st floor window with datestone above. Wide open pediment with deep bracketed soffits spans central 3 bays. Predominantly 16- and 24-pane timber sash and case windows. Corniced end, lateral and ridge stacks. Slate roofs.

INTERIOR: simple classical interior with Chanel scheme. Wide entrance hall flanked by pair of

large well-proportioned reception rooms with 6-panel 2-leaf timber doors, timber dado and simple cornices. That to right with Ionic columned recess, that to left with simpler Doric pilastered recess. Some lesser rooms stripped to stone walls due to dry rot. Barrel-vaulted gun room with metal door and barred window, former kitchen with cast-iron range, both to West wing. Chanel scheme: very simple, throughout principal rooms. Hessian-textured wallpaper painted shades of beige with matt darker buff/beige coloured paintwork. Stage-set style simple (buff/beige) painted timber chimneypieces, some original cast-iron grates, some brick/tile replacements. First floor room with hand-blocked French floral wallpaper. Some bathrooms painted green. Early Shanks bidet to first floor bathroom to W (see Notes).

WALLED GARDEN: immediately to E of house, rubble walls with flat coping. Incorporating to W pair of mirrored L-plan single storey and loft ancillary buildings with steeply pitched roofs with pointed arch windows facing garden.

Notes

A good example of a simple classical mansion house with a unique interior scheme by the internationally renowned fashion designer Gabrielle 'Coco' Chanel (1883-1971). Rosehall was built for Richard Dunning, 2nd Lord Ashburton (1782-1823). He bought Rosehall Estate in 1806 and the house burnt down in May 1817. It was replaced with this classical house which Beaton notes is in the style of William Robertson. Ashburton linked Rosehall with the River Oykel by a no longer extant canal and used it to ship the Moray stone for the dressings. It is likely that the present Rosehall incorporates some fabric from the former house, such as the West wing with its barrel vaulted ceiling. The work undertaken by Ross in 1873 probably included adding further servants' quarters parallel to the rear of the house. The previous list description notes that there are underground passages below the house, with entrances in the retaining walls, to accommodate a footpath which formerly passed in front of the South elevation. Rosehall was acquired by Hugh Grosvenor, 2nd Duke of Westminster (1879-1953), in the late 1920s. At this time, Chanel was his mistress. Although he only owned Rosehall for a very short time (possibly as few as 2 years) the interior was not to Chanel's liking and she redecorated it in her celebrated chic style. The striking simplicity, with shades of beige and basic replacement chimneypieces in painted timber, would have been significantly radical for its time. This is the only known house in Scotland with an interior by Chanel and its survival is remarkable. Beige was a colour which Chanel frequently used in her interiors, such as her office door at the famous Rue Cambon Chanel showrooms in Paris and the sofa in her apartment on the second floor. Local knowledge had suggested that the house contained the first bidet in Scotland, installed as part of Chanel's scheme, however this seems unlikely as bidet's were being manufactured in Scotland from the early 1900s. This particular model appears to feature in Shank's 1912 catalogue, albeit produced for the French market. The house has been uninhabited since 1967 and is now (2006) in poor condition with extensive dry rot. Much of the beige wallpaper is peeling away from the wall.

References

Imperial Gazetteer of Scotland (circa 1858) ii, p660-1. 1st edition Ordnance Survey map (1868-75). Shanks Catalogue, Shanks and Co Ltd. Appareils Sanitaires, Tubal Works et Victorian Poteries, Barrhead (1912); E Beaton, RIAS Guide, Sutherland (1995), p20-1. F Baudot Chanel (2003). www.buildingsatrisk.org.uk. www.scottisharchitects.org.uk. Further information courtesy of former owner (Listed Building report).

ARCHITECT: Alexander Ross (I.A. Sept 10, 1873) Improvements (Undated) information in NMRS.

NC40SE 23.00 47487 01585

NC40SE 23.01 NC 47566 01533 Walled Garden

Project Buildings at Risk Register BARR

Notes Symmetrical 2-storey 7-bay classical mansion with projecting 2-storey and single storey rear wings forming shallow U-plan, partly infilled with later servant's passage additions. Unique notable late 1920s interior scheme designed by Coco Chanel. Coursed grey and pink freestone with honey-coloured Moray sandstone dressings. Ribbon pointing. Deep eaves. In

poor repair (2006). Predominantly 16- and 24-pane timber sash and case windows. Corniced end, lateral and ridge stacks. Slate roofs.

A good example of a simple classical mansion house with a unique interior scheme by the internationally renowned fashion designer Gabrielle 'Coco' Chanel (1883-1971).

Rosehall was built for Richard Dunning, 2nd Lord Ashburton (1782-1823). He bought Rosehall Estate in 1806 and the house burnt down in May 1817. It was replaced with this classical house which Beaton notes is in the style of William Robertson. Ashburton linked Rosehall with the River Oykel by a no longer extant canal and used it to ship the Moray stone for the dressings. It is likely that the present Rosehall incorporates some fabric from the former house, such as the West wing with its barrel vaulted ceiling. The work undertaken by Ross in 1873 probably included adding further servants' quarters parallel to the rear of the house. The previous list description notes that there are underground passages below the house, with entrances in the retaining walls, to accommodate a footpath which formerly passed in front of the South elevation.

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The house has been uninhabited since 1967 and is now (2006) in poor condition with extensive dry rot. Much of the beige wallpaper is peeling away from the wall. (Historic Scotland)

BARR website <http://www.buildingsatrisk.org.uk/details/891998>

HOUSE (Post Medieval - 1560 AD to 1900 AD)
WALLED GARDEN (Undated)

Woodland History Rosehall and Glencassley, Bell-Ingram Forestry Dept (see copy in file NC40SE0014 - i.e. Mining): "the canal was however used for the transport of facing stone and timber for Rosehall House constructed by uniting two existing houses together in 1823 (burnt to ground in 1870). A landscape painting of the House at this period shows extensive woodland on the lower ground etc etc". N.B. The grounds are apparently formed by landscaping old mining spoil heaps - see same file for corres - HAW 12/2003 (Highland Council HER).

Eastings	247566
Northing	901533
Parish	Creich
Council	Highland
Description	Historic Building No. 275.

This building is in the Highland Council and the Creich Parish. It is a category B building and was listed on 18/03/1971.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 47488 01575.

Description
1818-25, dated 1822 but probably incorporating earlier fabric, 'improvements' by Alexander Ross, 1873 (see Notes). Symmetrical 2-storey 7-bay classical mansion with projecting 2-storey and single storey rear wings forming shallow U-plan, partly infilled with later servant's passage additions. Unique notable late 1920s interior scheme designed by Coco Chanel (see Notes). Coursed grey and pink freestone with honey-coloured Moray sandstone dressings. Ribbon pointing. Deep eaves. In poor repair (2006).

SOUTH (PRINCIPAL) ELEVATION: slightly advanced central 5-bay block with central wide corniced doorpiece with 4-panel timber 2-leaf door with rectangular margined fanlight above and flanked by narrow sidelights between paired Roman Doric pilasters. Above, blind 1st floor window with datestone above. Wide open pediment with deep bracketed soffits spans central 3 bays. Predominantly 16- and 24-pane timber sash and case windows. Corniced end, lateral and ridge stacks. Slate roofs.

INTERIOR: simple classical interior with Chanel scheme. Wide entrance hall flanked by pair of large well-proportioned reception rooms with 6-panel 2-leaf timber doors, timber dado and simple cornices. That to right with Ionic columned recess, that to left with simpler Doric pilastered recess. Some lesser rooms stripped to stone walls due to dry rot. Barrel-vaulted gun room with metal door and barred window, former kitchen with cast-iron range, both to West wing. Chanel scheme: very simple, throughout principal rooms. Hessian-textured wallpaper painted shades of beige with matt darker buff/beige coloured paintwork. Stage-set style simple (buff/beige) painted timber chimneypieces, some original cast-iron grates, some brick/tile replacements. First floor room with hand-blocked French floral wallpaper. Some bathrooms painted green. Early Shanks bidet to first floor bathroom to W (see Notes).

WALLED GARDEN: immediately to E of house, rubble walls with flat coping. Incorporating to W pair of mirrored L-plan single storey and loft ancillary buildings with steeply pitched roofs with pointed arch windows facing garden.

Notes
A good example of a simple classical mansion house with a unique interior scheme by the internationally renowned fashion designer Gabrielle 'Coco' Chanel (1883-1971). Rosehall was built for Richard Dunning, 2nd Lord Ashburton (1782-1823). He bought Rosehall Estate in 1806 and the house burnt down in May 1817. It was replaced with this classical house which Beaton notes is in the style of William Robertson. Ashburton linked Rosehall with the River Oykel by a no longer extant canal and used it to ship the Moray stone for the dressings. It is likely that the present Rosehall incorporates some fabric from the former house, such as the West wing with its barrel vaulted ceiling. The work undertaken by Ross in 1873 probably included adding further servants' quarters parallel to the rear of the house. The previous list description notes that there are underground passages below the house, with entrances in the retaining walls, to accommodate a footpath which formerly passed in front of the South elevation. Rosehall was acquired by Hugh Grosvenor, 2nd Duke of Westminster (1879-1953), in the late 1920s. At this time, Chanel was his mistress. Although he only owned Rosehall for a very short time (possibly as few as 2 years) the interior was not to Chanel's liking and she redecorated it in her celebrated chic style. The striking simplicity, with shades of beige and basic replacement chimneypieces in painted timber, would have been significantly radical for its time. This is the only known house in Scotland with an interior by Chanel and its survival is remarkable. Beige

Site Number	5.1
Site Name	Rosehall House and Walled Garden (Rosehall House)
Type of Site	Walled Garden
NMRS Number	NC40SE 23.01
HER Number	MHG47629
Status	Listed Building; Category B

was a colour which Chanel frequently used in her interiors, such as her office door at the famous Rue Cambon Chanel showrooms in Paris and the sofa in her apartment on the second floor. Local knowledge had suggested that the house contained the first bidet in Scotland, installed as part of Chanel's scheme, however this seems unlikely as bidet's were being manufactured in Scotland from the early 1900s. This particular model appears to feature in Shank's 1912 catalogue, albeit produced for the French market. The house has been uninhabited since 1967 and is now (2006) in poor condition with extensive dry rot. Much of the beige wallpaper is peeling away from the wall.

References

Imperial Gazetteer of Scotland (circa 1858) ii, p660-1. 1st edition Ordnance Survey map (1868-75). Shanks Catalogue, Shanks and Co Ltd. Appareils Sanitaires, Tubal Works et Victorian Poteries, Barrhead (1912); E Beaton, RIAS Guide, Sutherland (1995), p20-1. F Baudot Chanel (2003). www.buildingsatrisk.org.uk . www.scottisharchitects.org.uk . Further information courtesy of former owner (Listed Building report).

NC40SE 23.01 47566 01533

WALLED GARDEN (Undated)

Site Number	6
Site Name	Invernauld Bridge over Allt Mor Burn (Invernauld Bridge)
Type of Site	Road Bridge
NMRS Number	NC40SE 29
HER Number	MHG17141
Status	Listed Building; Category B
Easting	249129
Northing	900497
Parish	Creich
Council	Highland
Description	Historic Building No. 266.

This building is in the Highland Council and the Creich Parish. It is a category B building and was listed on 07/03/1984.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 491 004.

Description

Earlier 19th century, high single span bridge; coursed rubble, polished ashlar keystone arched ring, string course and parapet cope; arched ring flanked by shallow pilasters with terminal caps; similar terminal detailing to splayed approach parapets (Listed Building report).

BRIDGE (Post Medieval - 1560 AD to 1900 AD)

Site Number	7
Site Name	Old Oykel Bridge over River Oykel
Type of Site	Road Bridge

NMRS Number	NC30SE 10
HER Number	MHG16991
Status	Listed Building; Category B
Easting	238561
Northing	900922
Parish	Creich
Council	Highland
Description	Historic Building No. 273.

This building is in the Highland Council and the Creich Parish. It is a category B building and was listed on 18/03/1971.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 385 007.

Description

Early 19th century. High single span rubble bridge; dressed rubble arched ring and footings; dressed rubble parapet cope with splayed approach.

Notes

Now by-passed by realigned A837 road.

References

NEW STATISTICAL ACCOUNT, 15 (1834) p.21 (Listed Building report).

NC30SE 10 38561 00922

(Location cited as NC 385 009). Oykel Bridge was built in the early 19th century and has been by-passed by the A837. It spans the Oykel with a single segmental arch of coursed rubble, the abutments being set on near-vertical rocks in a deep hollow (Nelson 1990, 156-7).

This bridge carries the former line of the A837 public road over the River Oykel. Information from RCAHMS (RJCM), 6 May 1998.

This bridge also lies in Kincardine (Sutherland) parish. Information from RCAHMS (RC) 4 May 2000.

BRIDGE (Post Medieval - 1560 AD to 1900 AD)

Built in 1823, single segmental arch on Bonar Bridge to lochinver road.

The Industrial Archaeology of Sutherland (A Scottish Highland Economy 1700-1900, p. 58) - Sinclair B Calder, 1974

J Aitken : 19/2/2004 (Highland Council HER).

Site Number	8
Site Name	Brae Doune Foot Bridge over River Oykel
Type of Site	Suspension Bridge
NMRS Number	NC40SW 9
HER Number	MHG17115
Status	Listed Building; Category B
Easting	244054
Northing	901382

Parish Creich
Council Highland
Description Historic Building No. 287.

This building is in the Highland Council and the Creich Parish. It is a category B building and was listed on 18/03/1971.

Group Items: N/A, Group Cat: N/A, Map Ref: NC 441 013.

Description
 John M. Henderson and Co, Aberdeen, Engineers. 1938. Single span suspension bridge; steel-girder pylons, wire-rope cables and iron-rod suspenders; wooden deck and woven wire hand rails. 200' (60m) span.

Notes
 South bank of river in Kincardine parish

References
 John Hume, THE INDUSTRIAL ARCHAEOLOGY OF SCOTLAND, ii, (1977) p.312 (Listed Building report).

NC40SW 9 44054 01382

(Location cited as NC 441 013). Suspension footbridge, Brae Doune, built 1938. A 300ft (97m) span bridge, with steel-girder pylons, wire-rope cables and iron-rod suspenders. The deck is wooden and the railing is of woven wire (Hume 1977a, 312).

(Suspension bridge of wire rope and unstiffened deck type with iron or steel pylons: location incorrectly cited as NG 441 013). Built in 20th century by J M Henderson and Co. Ltd., Aberdeen, engineers (ref. H7975). Steel girder pylons, wire-rope cables, iron rod suspenders, wooden deck, woven wire railings. Span about 220 ft (67m). Public footbridge (Hume 1977b, 104, no. 6h).

(Name cited as Tuitean Bridge). This bridge was built in 1938 by John Henderson and Co. of Aberdeen, has a span of 300 ft (91.5m) and appears disused (Nelson 1990, 155-6).

This bridge carries a footpath over the River Oykel, which here forms the boundary between the parishes of Kincardine and Creich.
 Information from RCAHMS (RJCM), 7 May 1998.

SUSPENSION BRIDGE (Modern - 1901 AD to 2100 AD)

Site Number 9
Site Name Cnoc Chaornaidh, chambered cairn, cairn and long mound E of
Type of Site Chambered Cairn
NMRS Number NC30NW6
HER Number MHG7392
Status Scheduled Monument 4564
Easting 231700
Northing 908530
Parish Kincardine
Council Highland

Description
 Description
 The monument comprises the remains of a chambered cairn, a cairn, and a long trapezoidal mound. At NC31750859 is a large mound measuring over 19m by 17m with what seem to be the top of chamber stones visible, with entrance towards the SW and a distinct suggestion of horns. At NC315088 are what may be a long low trapezoidal mound measuring about 27m NW/SE by up to 22m transversely at its E end and 6m at its W end. Some 50m to its NE at NC31580887 are the remains of a cairn about 11m in diameter and 0.8m high.

The monument to be scheduled comprises the structures described above in all else in two clearings in the forest the smaller centred on the chambered cairn and an area of ground around it in which will survive traces of activities associated with its construction and use and measuring 50m in diameter and the larger including the trapezoidal mound and the cairn and an area of ground around them in which will survive traces of activities associated with their construction and use and measuring 100m NE/SW by 50m transversely all as delineated in red on the attached map.

National Importance
 The monument is of national importance because it includes good field monuments and because it represents burial practices in the area between at earliest the time of the first farmers in this area and at latest the middle Bronze Age. The chambered cairn is exceptionally fine; the ambiguous nature of the long mound is balanced by its exceeding interest if its initial identification by academic archaeologists is correct, and the cairn is a substantial resource. Between them these mounds should preserve land surfaces giving evidence for the vegetation and land use of the area in the fourth to second millennia.

Reference:
 Mercer, R. J. (1980a) Archaeological field survey in northern Scotland, 1976-1979, University of Edinburgh, Department of Archaeology, Occasional Paper No. 4, 153, LOU 9 (Historic Scotland).

NC30NW 6 3170 0853.

(NC 3175 0859) Some 50.0m from the River Oykel at 430 ft OD is a robbed chambered cairn. It measures 19.0m NW-SE by 16.5m transversely with a distinct horned facade. The NE and SE sides of the cairn have been robbed producing the illusion of a tail extending to the east, but it seems more likely that it is heel-shaped on plan. The chamber is marked by the tops of several orthostats indicating a polygonal chamber 3.75m by 2.75m. To the E of the chamber a stone 2.70m by about 0.75m wide appears to be a displaced capstone. The entrance is probably from the SW but no passage can be seen. A bank of cairn material surrounds the area of the chamber.
 J H Howell 1976 (see archive)

NC 3170 0853. A chambered cairn as described and planned by the previous authority.
 Surveyed at 1:10,000.
 Visited by OS (N K B) 23 June 1980.

CHAMBERED CAIRN (Neolithic - 4000 BC to 2401 BC)

Site Number 9.1
Site Name Cnoc Chaornaidh, chambered cairn, cairn and long mound E of
Type of Site Cairn; Long Cairn (or Natural Feature)
NMRS Number NC30NW 7 & 10
HER Number MHG7393 & 7411
Status Scheduled Monument 4564
Easting 231580

Northing	908870	the body of the cairn and a number of boulders around the N end are entirely fortuitous. Visited by OS (N K B) 23 June 1980.
Parish	Kincardine	
Council	Highland	CHAMBERED CAIRN (Neolithic - 4000 BC to 2401 BC) CHAMBERED LONG CAIRN (Neolithic - 4000 BC to 2401 BC)
Description	<p>The monument comprises the remains of a chambered cairn, a cairn, and a long trapezoidal mound. At NC31750859 is a large mound measuring over 19m by 17m with what seem to be the top of chamber stones visible, with entrance towards the SW and a distinct suggestion of horns. At NC315088 are what may be a long low trapezoidal mound measuring about 27m NW/SE by up to 22m transversely at its E end and 6m at its W end. Some 50m to its NE at NC31580887 are the remains of a cairn about 11m in diameter and 0.8m high.</p> <p>The monument to be scheduled comprises the structures described above in all else in two clearings in the forest the smaller centred on the chambered cairn and an area of ground around it in which will survive traces of activities associated with its construction and use and measuring 50m in diameter and the larger including the trapezoidal mound and the cairn and an area of ground around them in which will survive traces of activities associated with their construction and use and measuring 100m NE/SW by 50m transversely all as delineated in red on the attached map.</p> <p>National Importance The monument is of national importance because it includes good field monuments and because it represents burial practices in the area between at earliest the time of the first farmers in this area and at latest the middle Bronze Age. The chambered cairn is exceptionally fine; the ambiguous nature of the long mound is balanced by its exceeding interest if its initial identification by academic archaeologists is correct, and the cairn is a substantial resource. Between them these mounds should preserve land surfaces giving evidence for the vegetation and land use of the area in the fourth to second millennia.</p> <p>Reference: Mercer, R. J. (1980a) Archaeological field survey in northern Scotland, 1976-1979, University of Edinburgh, Department of Archaeology, Occasional Paper No. 4, 153, LOU 9 (Historic Scotland).</p> <p>NC30NW 7 3158 0887.</p> <p>(NC 3156 0888) On the edge of a promontory at 500 ft OD are the fragmentary remains of a chambered cairn. A small cairn 0.8m by 6.5m is in evidence, but it appears that much of the promontory is artificial, and several large orthostats are noted lying about 5.0m to the west. J H Howell 1976 (see archive).</p> <p>NC 3158 0887. On the SE end of a low narrow spur and extending down the end-slope, is a turf-covered mound of stones, approximately 11.0m in diameter and 0.8m high with a flattened profile; the base of the mound merges with the natural slopes. The content, where visible, is of loose stones, primarily of 'cairn-like' proportions, though some larger stones protrude. The 'several large orthostats' noted by Howell are a result of natural deposit; there are many such stones in the area. This is not a chambered cairn; it may be a natural accumulation, but if, as seems more likely, it is man-made, it may be an unchambered cairn. Surveyed at 1:10,000. Visited by OS (N K B) 23 June 1980.</p> <p>NC30NW 10 3155 0885.</p> <p>(NC 3155 0885) A long cairn, oriented NW-SE, lies immediately below chambered cairn NC 30 NW 7. It is trapezoidal on plan, measuring 27.25m in length, 21.5m in breadth and about 1m high at wider SE end and 6.5m across at narrower end, where there is no pronounced mound. Two large earthfast stones stand in a central position within the body of the cairn at its highest end. J M Howell 1976 (see archive).</p> <p>This is not a long cairn but a natural swelling situated below rising ground. The two stones in</p>	
Site Number	10	
Site Name	Strathseasgaich, burnt mound 500m SW of	
Type of Site	Burnt Mound	
NMRS Number	NC31SW 1	
HER Number	MHG7386	
Status	Scheduled Monument 4025	
Easting	230272	
Northing	910196	
Parish	Kincardine	
Council	Highland	
Description	Prehistoric domestic and defensive	
	NC31SW 1 3027 1019.	
	(NC 30271019) Mound (NR). OS 6" map, (1963)	
	A burnt mound was discovered during field investigation in 1961; kidney-shaped with a hollow into the centre from the south, and blocked at its outer end by a smaller turf-covered mound in a fashion similar to some of the burnt mounds of Orkney. Two small scrapes in the side have exposed the content of small cracked stones, some fire-reddened. Surveyed at 1:10 560. Visited by OS (J L D) 24 April 1961 and (J M) 9 July 1974.	
	The mound is about 14.5m in overall diameter with a maximum height of 1.5m; otherwise it is as described above. Visited by OS (J B) 23 September 1976.	
	The area has been deep-ploughed and planted with conifers; the burnt mound is preserved in a clearing. Visited by OS (N K B) 17 June 1980.	
	FE Management Plan received 30/03/01. J Aitken : 30/03/01.	
	BURNT MOUND (Undated)	
Site Number	11	
Site Name	Strathseasgaich, chambered cairn 700m SW of	
Type of Site	Chambered Cairn	
NMRS Number	NC31SW 2	
HER Number	MHG7384	

Status	Scheduled Monument 4044
Easting	230026
Northing	910280
Parish	Kincardine
Council	Highland
Description	NC31SW 2 3002 1028. (NC 3002 1028) Chambered Cairn (NR). OS 6"map, (1968) The robbed remains of an Orkney-Cromarty type round cairn with a polygonal chamber and a well-defined edge with a scatter of stones beyond, was discovered during field investigation (OS field surveyor [JLD]). It measures about 15m in diameter and 1.2m high, and has been sufficiently robbed to expose the upper parts of the chamber orthostats, which appear to have been linked by drystone walling. The entrance has been from the SE, probable portal stones and a lintel being visible. Surveyed at 1:10 560 (Henshall 1972, 570 plan; visited 1963); Visited by OS (J L D) 24 April 1961. No change to previous field report. Visited by OS (J B) 23 September 1976. A much disturbed cairn of unusual type; Miss Henshall describes the entrance as being in the SE, but on examination this was not convincing, nor was the inturned wall on the NW. J M Howell 1976 (see archive). CHAMBERED CAIRN (Neolithic - 4000 BC to 2401 BC)

Site Number	12
Site Name	Cnoc Chaornaidh, chambered cairn 180m NNE of, Stratheskie
Type of Site	Chambered Cairn
NMRS Number	NC20NE 1
HER Number	MHG7380
Status	Scheduled Monument 4045
Easting	229902
Northing	908416
Parish	Kincardine
Council	Highland
Description	Prehistoric ritual and funerary NC20NE 1 2990 0841. (NC 2990 0841) Chambered Cairn (NR) OS 6"map, (1967) This chambered cairn (Orkney-Cromarty group, polygonal chamber, round cairn) is situated in open moorland, standing almost on the crest of a saddle between Cnoc Chaornaid and a spur, at about 600 ft O D. The cairn has been almost entirely removed but it is possible to trace the edge, giving a diameter E-W of about 45 ft and N-S of about 55 ft. There have been a number of considerable and apparently widely spaced stones on the periphery of these one 5 1/2 ft long lies prone to the NE of the entrance while three remain in the arc behind the chamber, 20

ft apart; that to the NE is 5 ft 3 ins high and 5 ft 5 ins wide, the NW 1 ft 3 ins high, and the SE now flush with the ground. The main stones of the chamber remain. The entrance has been from the SE. Large slabs lying beside the chamber are probably remains of the dry-walling from between the orthostats (Henshall 1963, 344, ROS 15 plan, fig. 78).

This cairn is as described by Miss Henshall. The main walls of the cairn, badly mutilated in places, rise to a height of 1.3m.
Visited by OS (E G) 1 June 1962.

Although described by Miss Henshall as round, this cairn has probably been heel-shaped.
J M Howell 1976 (see archive).

A chambered cairn as described and planned by Miss Henshall.
Revised at 1:10,000.
Visited by OS (N K B) 18 June 1980.

CHAMBERED CAIRN (Neolithic to Late Bronze Age - 4000 BC to 551 BC)

Site Number	13
Site Name	Langwell,fort and dun 500m WSW of
Type of Site	Fort; Dun; Vitrified Stone
NMRS Number	NC40SW 3
HER Number	MHG7371 & 44797
Status	Scheduled Monument 5302
Easting	241030
Northing	900890
Parish	Kincardine
Council	Highland
Description	The monument consists of a fort and later dun. The fort and dun occupy a prominent knoll. The fort encloses the whole of the knoll and measures c. 120m N-S by 80m. The defences consist of a stone wall around the top of the knoll, in which traces of vitrification can be seen, and scarping on the lower slopes on all but the W side. The entrance is in the NE side. The dun is circular, 15.5m in diameter, with a vitrified wall 5m thick and up to 2m in height above the interior. Excavation in the 1970s indicated that the vitrified wall of the dun was originally timber-laced and also provided evidence for a radial set of post holes which probably supported a roof over the dun. The entrance is in the E and was flanked by a guard chamber. The area to be scheduled measures 200m E-W by 130m N-S, to include the whole knoll, as shown in red on the attached map. National Importance The monument is of national importance for its potential contribution to an understanding of prehistoric defensive architecture and domestic settlement. The development of the site, involving a fort which was later replaced by a dun, provides information for a sequence of defensive structures. In addition the dun is one of a very rare group of small timber-laced duns. Other Information RCAHMS records the monument as NC 40 SW 3 (Historic Scotland). NC40SW 3 41040 00888

NC 4104 0084. On Torr a' Chorcain, a prominent knoll rising some 100' above the floodplain of the River Oyke, are the remains of a vitrified fort, and a small circular vitrified dun.

The dun occupies the highest part of the knoll, the SW end, the measures 11.0m in internal diameter. The walling, now turf-covered and spread to a width of 9.0m, is heavily vitrified on the N and S, and on both sides of the entrance, which is in the E. The original width of the walling was probably about 4.0m.

The dun is enclosed within, and clearly overlies, part of the ruins of a vitrified fort which occupies the whole of the knoll and measures 120m NE-SW by 80m transversely. The fort defences consist of a scarping of the lower slopes of the knoll on the N and S, and much-robbed stone wall around the top of the knoll in which traces of vitrified material can be seen. There are no defences around the W side which falls away steeply to the river. The entrance is in the NE side.

The site is of some interest because (i) the only other known, small, timber-laced dun, is the example at Rahoy, Argyllshire, excavated by Childe (V G Childe and W Thorneycroft 1938), and (ii) the relationship of the dun and fort may provide a link in the problem of the evolution of the broch.

Surveyed at 1:2500.

Visited by OS (N K B) 23 November 1966 (Childe and Thorneycroft 1938).

Partial excavation by Miss Nisbet in 1973 and 1974 was concentrated mainly on the dun but a section across the inner rampart of the fort showed that the existing feature consisted largely of upcast from stone-robbing overlying at least two occupation levels. Neither vitrification in situ nor evidence of timberlacing was found. Both beneath and outside the dun there were traces of occupation including ironworking. The dun was confirmed as being a timberlaced construction. It has a diameter of 15.5m within a wall 5.0m thick, standing to a height of over 2m internally, faced with well-coursed slabs and infilled with waterworn stones which show a core of vitrification. The entrance, 2m wide, flanked by post holes and floored with logs has a guard chamber on its left. Internally a ring of about fourteen stout posts set at a distance of 4.5m from the wall had supported a roof of timber, turf and twigs probably open in the centre. A wooden ramp or gangway had run up the hillside to the entrance, to be continued in the interior as a turf ramp. Two phases of occupation before the fire which caused the vitrification, and one after it could be determined. The last involved internal levelling of the debris from wall and re-roofing using new posts. Radio carbon dates for the dun give a range from 10 BC to 440 BC, but two samples taken from one roof timber give over-lapping dates of 210 to 290 BC. The only finds from the excavation, besides whetstones and other simple stone tools, were an iron knife blade and two stone beads. There was no pottery. A midden lies outside the dun entrance on the right (Nisbet 1973 & 1974).

The vitrified dun, and the fort, probably not vitrified, are as described by Nisbet.

Revised at 1:10,000.

Visited by OS (J B), 1 October 1976.

Project Euan W Mackie Broch Corpus 2

Notes NC40 4 TOR a' CHORCAIN ('Lang-well')

NC/4104 0088

This vitrified dun or massive round-house (of broch-like proportions and standing on top of an earlier hillfort) is included here because it may be an example of how a broch-like structure – in the sense that it is a complex wooden roundhouse protected by a ponderous shell wall of stone – has evolved from quite a different pedigree. The site is on high ground overlooking Strath Oyke and its river and with wide views up and down it (visited during the excavations in 1974).

Excavations were carried out on the dun by Helen Nisbet in 1973 and 1974 [4]. A single trial trench into the west flank of the hillfort failed to reveal any vitrification but located two occupation layers under fallen rubble. Signs of the hillfort occupation – with a few artifacts such as stone rubbers, hones and a few pounders – were also noted at the base of some post-holes and elsewhere.

The excavator gives a fairly detailed account of the likely structure of the timber-framed wall, and also discusses the wider significance of the site [4, inc. Appendix]. Here however, after a brief description of the wall and entrance, we will concentrate on the primary wooden roundhouse, traces of which were found in the central court of the 'dun'. The fact that only about half of the interior was excavated is to be explained by the concentration of the work on sectioning the vitrified wall, a huge task [4, pls. 5 and 6]. The project was paid for by the late Mr S P Fay of Los Angeles who was interested primarily in the phenomenon of vitrification.

1. Situation

The dun stands on the higher, western summit of the hill and on top of the remains of the hillfort defences. Heavy vitrification was visible before work started. The structure was found to be almost circular in plan with an entrance facing east, an internal diameter of 15.0-15.5m and a wall averaging 5.0m in thickness; the inner face of this still stood in places to a height of over 2m above the primary floor. On the basis of the quantity of rubble lying about the original height was estimated at about 3-4 m.

2. Description

The dun wall

The inner and outer faces were of well-coursed slabs, with a core of roughly laid water-worn cobbles having a central spine of solid vitrified stone. The original presence of some kind of timber-framing inside the wall was proved by the finding of beam holes containing charcoal. The burning of such a drystone wall laced with wooden beams is usually supposed to have produced the vitrified masses in the wall core [5].

The entrance passage

The stone walls of the entrance passage were 2.50m apart and the floor had been paved with transverse logs. Massive upright posts – four on the south or left (with a fifth in line with them just inside the dun) and three on the right – had been partly set into the wall (in vertical post slits) and must have supported a massive wooden entrance tunnel, presumably with some kind of tower on top and a wooden gate (no stone door-checks were found). The posts were presumably set in place before the stone walling was built and the excavator thought that they were likely to have been fastened to the timber framework in the wall core. There were signs that some of the posts had been pulled out, and the timber entrance presumably destroyed, before the burning and vitrification of the wall. No traces of stone lintels roofing the passage seem to have been found so doubtless the entire entrance structure was of wood; presumably this was connected with a fence or palisade which ran round the top of the wall near its front edge.

The guard cell

In the left wall of the passage is the opening to a mural chamber or guard cell, the upper part of the wall of which had vitrified; this had caused a slump of once-molten rock into the room itself. The chamber was 3.25m deep and about 2m wide, the entrance being 0.5m wide. There was no sign of corbelling in those parts of the vertical wallface which had survived (up to about 50 cm) below the vitrification. A thin black occupation layer rested on the subsoil and above this was a mass of carbonised logs, presumably the remains of the wooden roof capped with turf.

"The guard cell exhibits in miniature the entire vitrification process; well-built wallfaces passing upwards and sideways into vitrification, with cracking and bending of the stones, and mobile vitrified material appearing to 'ooze' between them. It leaves no room for doubt that in suitable blanketed conditions, stones do actually melt to give vitrified masses." [4, 56].

The interior

The stratigraphy of the interior provided evidence of a primary occupation on the old ground surface, then a layer of burning with collapsed roof material on top of this and, finally, traces of a secondary occupation on top of the ruins. A level platform with a very irregular surface was built up before the dun wall was constructed, and this was subsequently baked hard by the fire which destroyed the latter.

A ring of wooden posts was set up in the area enclosed by the dun wall, at a distance of about 4.0m from it; eight post-holes were actually exposed and the original total was probably

fourteen. The holes were about 50cm deep but the size of the posts they contained was not estimated. The ring would have been about 8.5m (27.9ft) in diameter and must surely have supported the mid point of the roof rafters, the outer ends of which were presumably on the wallhead. No scarcement was found on the remaining inside wallface but if there was a raised wooden floor also attached to the posts these would surely have been attached to some of the beams which doubtless projected from the wall core.

However the burnt roof debris (below) formed a relatively thin layer and there was an absence of burned timbers from the central area of the floor which made the excavator think that the roof might have been a lean-to affair, with the middle of the floor having been left open to the sky.

Despite the uneven surface of the foundation platform the inhabitants seem to have lived on this, and a thin occupation layer, also baked hard, was found. However there were no artifacts inside "and there was a complete lack of evidence for normal domestic activities." [4, 60]; the interior had evidently been kept clean. Not a single sherd of pottery was found. There were some stone slab settings in this floor which might have been small hearths but one would normally expect a large central hearth inside a roundhouse of this size. It is possible that there was one which was not uncovered; the excavated areas could just have missed it, as they did at first at Rhiroy (NH19 3).

Traces of occupation were also found outside the dun and there was a distinct accumulation of midden material on the slope outside the entrance, which contained many fragments of the bones and teeth of sheep and cattle.

A layer of what appeared to be burned and collapsed roof material lay all over the outer part of the floor in the interior, forming a network of charred timbers, twigs and burnt turf. The charred stumps of several of the posts were found in position in their sockets. Between these posts and the wall lay a roughly radial pattern of fallen roof timbers mixed with turf, and the absence of such debris from the central area suggests, as noted, that the roundhouse had an annular, lean-to roof with a clear middle part.

There was evidence of two phases of occupation on top of the burned strata in the interior, implying that people continued to live there after the destruction and vitrification of the wall. The floor had first been levelled up with available rubble and debris which had fallen from the walls. Part of the interior at least was then apparently re-roofed using fresh posts, and occupation continued for some time thereafter (there are more details of this later habitation in the report).

3. Dating

Radiocarbon dates

A set of five C-14 dates was obtained for burnt material. No. 1 was for charcoal from a large post-hole at the entrance to the guard chamber; no. 2 for charcoal from the foundation course of the inner face of wall; nos. 3-5 are all for charcoal from a fallen roof timber. It was observed that the roof timbers tended to be full of beetle holes, suggesting re-used wood, whereas the post-hole timbers were not. In the absence of any indication of how the dated fragments related to the start of the growth of the trees concerned one can only assume that the C-14 dates relate to a time a little before the cutting of the timbers for use in the building.

1. GaK 4860 2210 +/- 90 (260 bc)
2. GaK 4862 2240 +/- 90 (290 bc)
3. GaK 4861 2200 +/- 100 (250 bc)
4. GX 3274a 1040 +/- 210 (ad 1010)
5. GX 3274b 2040 +/- 140 (90 bc)

Table of uncalibrated radiocarbon dates obtained for Langwell. No. 5 was obtained after no. 4 had been received.

Although the reliability of the early Gakushuin laboratory dates (GaK) has been questioned the three from that laboratory are reasonably consistent and match the second Geochron date well. There is no obvious explanation for the first Geochron (GX) date being so much later.

Broadly speaking the four consistent dates, when calibrated, suggest that the timber-framed dun was built at some time during the 3rd or the 2nd centuries BC [4, fig. 10].

Thermoluminescence dates

After the excavation was completed Sanderson and others obtained a number of TL dates for several vitrified forts including Langwell [6]. One would expect that such dates, being performed on the vitrified material itself, would give an indication of when the stone was last heated – that is, when the dun was destroyed by fire. The date for Langwell has a mean age of AD 205 which suggests that the site was in use for several centuries. However other dates from vitrified forts vary wildly from the equivalent C-14 dates [6, 7] so caution over the interpretation of this one seems advisable.

4. Discussion

In many ways the size, shape and internal wooden structure of Tor a' Chorcain resemble those of a hollow-walled broch far more closely than, for example, the drystone roundhouse at Buin Orkney (ND20 3), and the site provides an interesting case study of how some form of complex, and perhaps two-storeyed, wooden roundhouse – enclosed by a strong defensive wall – emerged from the timber-framed hillfort tradition in the 3rd or 2nd centuries BC. However the internal diameter is, at 15.4m, very large and raises the question of whether it would have been possible roof such a structure completely.

5. Finds

There were large numbers of whetstones and hones, and also pebble hammerstones and grinders, all over the site and in all levels; most of these stone tools are now at Langwell Farm. Other finds were extremely sparse. It is not entirely certain what the 'scoop' is, or what 'hand mortars' are.

From the primary occupation levels came 15 hones and whetstones, 3 sling-stones, 7 rubbing stones, 1 scoop, 1 quartzite strike-a-light, 1 bone bead (from the floor of the guard cell), and an unidentified iron object.

From the destruction debris came 28 hones and whetstones, 3 sling-stones, 8 rubbing stones, 2 hand mortars, 7 pounders and a well-preserved iron blade [4, fig. 9].

From the secondary occupation layers came 11 hones and whetstones, 1 sling-stone, 26 rubbing stones, 4 hand mortars, 3 scoops, 1 pounder and a polished ring-bead of green serpentine.

In the topsoil outside the dun was found a fragment of a shale bracelet [4, fig. 9.1).

Dimensions (taken from the plan)

Overall diameter about 25.7m (84ft 3in), internal diameter about 15.4m (50ft 6in), wall proportion about 40%. This is a very large roundhouse by broch standards; Mousa in Shetland (HU42 6), for example, could just about fit inside it.

Sources: 1. NMRS site no. NC40SW 3: 2. H. Nisbet in *Discovery and Excavation in Scotland* 1974, 59-60: 3. H Nisbet in *do.*, 1973, 48-49: 4. Nisbet 1996: 5. MacKie 1977: 6. Sanderson et al. 1988: 7. Alexander 2002: 8. Church 2002, 74-5 (MacKie 2007).

Notes NC 4329 0228 and NC 3856 1595 A desk-based assessment and walkover survey were carried out, 15 December 2010–1 April 2011, in advance of a native woodland planting scheme. The scheme consists of five planting areas. Areas 1–3 centred on Dalnaclave (NC 3856 1595) and areas 4–5 centred on Carn Beag, Rosehall (NC 4329 0228). The survey covered a c815ha area and the land ranged in height from 16m above sea level at Rosehall to 260m N of Dubh Coille.

The desk-based assessment identified two scheduled ancient monuments, Croich Broch (NC 4116 1121) and Langwell Fort and Dun (NC 4104 0084), whilst the survey identified land use features, which predated the sheep and deer forest. A number of features were marked out and exclusion zones defined. The protection of features from the effect of regenerating vegetation will be included in any management plan.

Archive: RCAHMS

Funder: CKD Galbraith
Highland Archaeology Services, 2011 (Wood And Dagg 2011).

FORT (Undated)
DUN (Undated)

Status Scheduled Monument 4023
Easting 230181
Northing 908188
Parish Kincardine
Council Highland
Description Prehistoric ritual and funerary

NC30NW 3 3017 0818.

(NC 30170818) Cairn (NR)
OS 6"map, (1967)

A probable chambered cairn, 13.0m in diameter and 2.4m in maximum height, partly ruined on the south and SE but otherwise undisturbed and grass-grown. Two large slabs are visible on the south side, neither at nor leading to the centre and behind them to the NW is a cavity with a side slab and lintel just visible. Other large slabs lie about. The cairn seems to have been chambered but the present remains are impossible to interpret.
Surveyed at 1:10 560 (Henshall 1963, 344, ROS 16).
Visited by OS (W D J) 4 April 1963.

No change to previous field report.
Visited by OS (J B) 23 September 1976.

CHAMBERED CAIRN (Neolithic - 4000 BC to 2401 BC)

Site Number 14
Site Name Cnoc Chaornaith, chambered cairn 570m SW of
Type of Site Chambered Cairn
NMRS Number NC30NW 4
HER Number
Status Scheduled Monument 4022
Easting 230328
Northing 907941
Parish Kincardine
Council Highland
Description Prehistoric ritual and funerary

NC30NW 4 3032 0793.

(NC 30320793) Cairn (NR)
OS 6"map, (1967)

The remains of an Orkney-Cromarty type round cairn with a polygonal chamber, set on a small level area on the hillside. The cairn material has been almost removed but it is possible to trace the outline measuring 15m E to W by 13m. The passage and chamber are entered from the SE and most of their upright slabs are still in situ, ranging in height to 1.5m, but the only remaining capstone is displaced.

Surveyed at 1:10 560 (Henshall 1963, 345, ROS 17 plan, fig. 78).
Visited by OS (R D L) 5 April 1963.

No change to previous field report.
Visited by OS (R D L) 5 April 1963.

Although the cairn is described by Miss Henshall as being round with a divided chamber, the flatness of the entrance arc and the elongation of the NE-SW axis suggest that it has been heel-shaped; and the chamber may have been simple as opposed to divided.
J M Howell 1976 (see archive).

Howell's amendment to Miss Henshall's description confirmed.
Visited by OS (N K B) 23 June 1980.

Site Number 15
Site Name Cnoc Chaornaith, chambered cairn 560m WSW of
Type of Site Chambered Cairn
NMRS Number NC30NW 3
HER Number MHG7389

Site Number 16
Site Name Cnoc Chaornaith, cairn 930m NW of
Type of Site Cairn
NMRS Number NC30NW 1
HER Number MHG7410
Status Scheduled Monument 4042
Easting 230138
Northing 909128
Parish Kincardine
Council Highland
Description Prehistoric ritual and funerary

NC30NW 1 3013 0913.

(NC 30130913) Cairn (NR)
OS 6"map, (1967)

A large, turf-covered cairn with an overall diameter of 27m and maximum height of 4m on the east. On the NE side a ramp-like feature of earth and stone appears to overlie the base of the cairn. There is an excavation hollow in the summit of the cairn.
Surveyed at 1:10 560.

Visited by OS (R D L) 5 April 1963; Information contained in letter from A J Boyd, Inverkirkaig to A S Henshall (National Museum of Antiquities of Scotland [NMAS]) 30 June 1954.

The cairn set upon a small natural hillock is generally as described above. No kerb is visible but the cairn appears to have measured about 17.5m N to S by 15.0m (Mercer 1980, 154, LOU 23); Visited by OS (J B) 23 September 1976.

CAIRN (Neolithic to Late Bronze Age - 4000 BC to 551 BC)

Status Scheduled Monument 4046
Easting 231354
Northing 907937
Parish Kincardine
Council Highland
Description Prehistoric ritual and funerary

NC30NW 5 3135 0794.

(NC 3135 0794) Cairn (NR).
 OS 6"map, (1967)

A fine, possibly Orkney-Cromarty type horned cairn of bare stone measuring 20m in diameter and 2.3m high was discovered during field investigation. It shows some disturbance but is unlikely to have been robbed. The east side is probably distorted by a short stretch of secondary walling. The entrance has probably been from a little north of east, from the centre of the flatter side of the cairn, but none of the passage structure is now discernible. The chamber is indicated by a number of corbel stones mostly belonging to the NW side and the innermost wall, the roof having partly collapsed, though the chamber and passage are presumably otherwise intact. Various large slabs lie apart outside the chamber, presumably displaced corbel stones and lintels (Henshall 1972, 564-6, ROS 43); Visited by OS (R D L) 6 April 1963.

No change to previous field report.
 Visited by OS (J B) 23 September 1976.

The cairn is heel-shaped with a horned facade. A bank of hard cairn material, sloping at a more oblique angle than the rest of the cairn, occurs around the area of the chamber and may represent the remains of an earlier structure, although it could also result from differential robbing.

J M Howell 1976 (see archive)

Howell's amendment to Miss Henshall's description confirmed.
 Visited by OS (N K B) 23 June 1980.

CHAMBERED CAIRN (Neolithic - 4000 BC to 2401 BC)

Site Number 19
Site Name Langwell Farm
Type of Site Cist, Inhumation, Organic Material, Organic Material (Wood)
NMRS Number NC40SW 20
HER Number MHG51530 & 52831; EHG3069 & 3509
Status Not Designated
Easting 241300
Northing 901040
Parish Kincardine
Council Highland
Description Notes

NC 4130 0104 Parts of an inhumation burial were recovered, 6–12 February 2009, under the provisions of the human remains call-off contract. The tightly flexed burial lay in a substantial

Site Number 17
Site Name Loch Ailsh, chambered cairn 900m SE of Strathseasgaich
Type of Site Chambered Cairn
NMRS Number NC30NW 2
HER Number MHG7402
Status Scheduled Monument 4043
Easting 231149
Northing 909801
Parish Kincardine
Council Highland
Description Prehistoric ritual and funerary

NC30NW 2 3115 0980.

(NC 31150980) Cairn (NR)
 OS 6"map, (1967)

A probable chambered cairn of waterworn stones set in a small, ill-drained hollow in low, peaty moorland and now covered by 0.3m of peat. It is oval in plan, measuring 21m by 17m by 2.3m high, and is surrounded by a possibly natural ditch-like feature (OS field surveyor [EGC]). The east side and centre have been severely robbed and any entrance from this side has been destroyed but in the centre are some very large slabs, obviously displaced but strongly suggestive of a chamber.

Surveyed at 1:10 560.

Visited by OS (E G C) 3 April 1963; (Henshall 1963, 350, ROS 28).

The cairn is as described above. The "ditch" is of variable width ranging from 2.5m to 4.5m enlarging in the SE to form a "recess" 7.5m wide. It has an average depth of 0.7m.
 Visited by OS (J B) 23 September 1976.

The 'ditch' around the cairn appears to be entirely natural, a result of differential peat accumulation.

Visited by OS (N K B) 23 June 1980.

CHAMBERED CAIRN (Neolithic - 4000 BC to 2401 BC)

Site Number 18
Site Name Allt Eileag, chambered cairn 800m SE of Cnoc Chaornaidh
Type of Site Chambered Cairn
NMRS Number NC30NW 5
HER Number MHG7391

stone cist and was discovered by the landowner while clearing peat. Relatively well preserved organic materials, including wood and fur, accompanied the skeleton. The integrity of the burial had been compromised before archaeological intervention by the local police, who had partially cleared the cist of its contents. However, part of the skeleton and some of the accompanying material remained in situ and were recovered. The site of a second possible cist 5m to the S, where large slabs had been removed by the mechanical excavator, was also investigated. This revealed not a cist but an arcing, stone-built feature which sat on an old ground surface sealed by the peat.

Archive: RCAHMS (intended). Report: Highland Council SMR and RCAHMS
Funder: Historic Scotland (Olivia Lelong – GUARD).

NC 4130 0104 The site of a previously excavated cist was investigated by archaeologists from GUARD and NOSAS on 29–31 August 2009. An auger survey revealed that the cist had been set into a curving, naturally raised area of sands and gravels. Profiling of nearby peat deposits, using Kubiena monolith tins, suggests that the course of the river Oykel had at one time run directly alongside this raised area. The underside of the cist top-slab was examined for the first time, but no markings were evident.

No further cists were revealed by the auger survey although it was noted that a substantial concentration of river cobbles may represent the remains of a robbed cairn. Though there was no compelling evidence to suggest other cists were ever present in the vicinity, the possibility does remain that the very stony character of the area may have prevented the identification of any underlying cists. Two environmental bulk samples were taken from deposits that were frozen at the time of the February 2009 excavation and will be included in any future post-excavation work.

Archive: RCAHMS (intended). Report: Highland Council SMR and RCAHMS
Funder: Historic Scotland (Alastair Becket and Jennifer Miller – GUARD).

SHORT CIST (Early Bronze Age - 2400 BC to 1501 BC)
CROUCHED INHUMATION (Early Bronze Age - 2400 BC to 1501 BC)
FEATURE (Neolithic to Late Iron Age - 4000 BC? To 560 AD?)

Information was received from Historic Scotland about an Early Bronze Age short cist burial which had been uncovered by the farmer during works to clear up field clearance stones. The works were halted as soon as the presence of the cist became apparent. The capstone, unfortunately broken, was moved to one side to reveal a fairly well-preserved crouched burial. It is reported that an apparent basket was placed close to the head, with another close to the feet. At this point the police were called and Historic Scotland were notified. The police attended and the remains were removed for analysis.

The site was subsequently visited and photographed by HCAU archaeologists. The cist lies beneath approximately half a metre of peat, overlain by an orange-brown sandy deposit. It is likely that this was a high point on the land, which is generally very low lying and in the flood plain of the River Oykel. The farmer reports a large number of stones in this part of the field. Although he has used the area to pile a large number of stones cleared from the field, it does seem probable that there was formerly a cairn covering the cist. There is apparently another circular stony area within the field between this point and the river, possibly another cairn or a hut circle. Other hut circles are known locally in the area, and this would have been a favourable location for early settlement.

It was confirmed that the majority of the bones had been removed from the cist, although some of the smaller bones remained along with some fragments of the possible baskets. Some of the overburden had fallen into the cist when it was opened and this does not appear to have been disturbed, so further remains may be preserved beneath this in the bottom left corner of the cist.

A second cist also appears to have been disturbed by machinery to the south-east of the first. The farmer pointed out a number of stone slabs, one of which was broken, which had been moved by the JCB before the first cist was discovered. It is highly probable that the rest of the cist still survives in this area, with the potential for others.

It is planned that the site will be investigated under Historic Scotland's call off contract with GUARD. <1>-<3>

Photographs taken by Mr Hampton, the landowner, and his employee John White shortly after the removal of the capstone show the presence of a crouched burial and a white powdery substance. <4>

This find, the circumstances of its discovery and alleged later treatment were featured in two local newspapers in March 2009. <5><6>

The remaining parts of the burial were recovered by GUARD under the Human Remains Call-off Contract and the cist was recorded. The cut for the cist was found to be an elongated oval measuring 2.6m by 1.18m. Around the cut lay a mineralised old ground surface. The cist proved to be a very substantial structure, slightly trapezoidal on plan and formed of four massive slabs set vertically in the cut with redeposited subsoil backfilled around them. Redeposited subsoil had also been laid over and around the capstone to seal the cist.

The interior of the cist was covered in disturbed archaeological deposits. These proved to seal substantial remains of the skeleton in positions which confirm the flexed body position, along with fragments of organic material including wood, wicker and a material that is probably fur. The probable fur was concentrated around the pelvis and lower leg area suggesting that the body was wrapped in animal hide or wearing a fur garment. White crumbly deposits may derive from adipocere (a substance formed by decomposing soft tissue in a damp environment), decayed bone and/or another material deposited with the burial. Other sediments may result from the decay of soft tissue and other organic materials.

The bones retrieved from Dornoch police station included parts of the skull, some long bones and most of the upper teeth but there was little organic material amongst the remains and no evidence of the reported basket. In the initial photographs the basket material appears to be enclosing the skull. A possible parallel for this may exist at Cairnpapple, West Lothian, where the inhumation in question was dated to the mid to late 3rd millennium BC.

The Langwell Farm cist is an extremely rare and valuable find with the potential to reveal a great deal about contemporary life and burial practice. It is recommended that a programme of post-excavation analysis is undertaken, including specialist analysis of the excavated materials, radiocarbon dating, contextual research and publication. <7>

Sources and further reading

<1> Text/Correspondence: McCullagh, R. 01/2009. Emails from Historic Scotland regarding EBA short cist at Langwell. Digital.

<2> Verbal Communication: Tilbury, S. Comment by Sylvina Tilbury, HER Officer.

<3> Image/Photograph(s): Puls, A. 01/2009. Photographs of Langwell cist following removal of burial. Colour. . Digital.

<4> Image/Photograph(s): Hampton, J. 01/2009. Photographs of Langwell cist burial. Colour. . Digital (scanned).

<5> Text/Publication/Article/Newspaper Article: McMorran, C. 13/03/2009. "Police blamed for destroying Bronze Age burial site" in The Northern Times. Digital (scanned as PDF).

<6> Text/Publication/Article/Newspaper Article: Caithness Courier. 18/03/2009. "Bronze-Age find 'botched' by police, claims farmer" in Caithness Courier. Digital (scanned as PDF).

<7> Text/Report/Fieldwork Report: Lelong, O. 2009. Langwell Farm, Strath Oykel: Human Remains Call-Off Contract Data Structure Report. Glasgow University Archaeological Research Division (GUARD). Digital

The site of a possible cist was investigated by GUARD in February 2009 as part of a programme of salvage excavation focussed on a cist burial 5 metres to the north. Large slabs had been disturbed by a mechanical excavator. The excavation revealed not a cist but a curving, stone-built feature which sat on an old ground surface sealed by half a metre of peat. Iron-panning on the old ground surface suggests that conditions on both sides of the feature were rather wet and it is possible that it was built to contain or delineate a more boggy area from the better drained ground. Its position beneath the peat suggests the feature is of some antiquity and it could be prehistoric date. This site and the nearby cist are located on a slight rise measuring approximately 40 metres east-west by 8 metres. It is conceivable that the stone feature relates to the use of this slight rise during the Bronze Age for ceremonial and funerary purposes. <1>

Sources and further reading

<1> Text/Report/Fieldwork Report: Lelong, O. 2009. Langwell Farm, Strath Oykel: Human Remains Call-Off Contract Data Structure Report. Glasgow University Archaeological Research Division (GUARD). Digital. Area B.

A team from Glasgow University Archaeological Research Division carried out salvage excavation of the remaining contents of a cist, which had been disturbed by a mechanical excavator during peat clearing works. Details of the cist's construction were recorded and the site of a second possible cist was investigated. Attempts to excavate a section across the cist were unsuccessful due to the frozen ground condition, but the accidental collapse of the northern slab allowed partial examination of the cut. Bones which had previously been removed by the police were retrieved from Dornoch police station for scientific analysis. <1>

Type(s) of Investigation
Archaeological Intervention/Excavation
EXCAVATION

(Highland Council HER).

NC 4130 0104 The site of a previously excavated cist was investigated by archaeologists from GUARD and NOSAS on 29–31 August 2009. An auger survey revealed that the cist had been set into a curving, naturally raised area of sands and gravels. Profiling of nearby peat deposits, using Kubiena monolith tins, suggests that the course of the river Oykel had at one time run directly alongside this raised area. The underside of the cist top-slab was examined for the first time, but no markings were evident.

No further cists were revealed by the auger survey although it was noted that a substantial concentration of river cobbles may represent the remains of a robbed cairn. Though there was no compelling evidence to suggest other cists were ever present in the vicinity, the possibility does remain that the very stony character of the area may have prevented the identification of any underlying cists. Two environmental bulk samples were taken from deposits that were frozen at the time of the February 2009 excavation and will be included in any future post-excavation work.

Archive: RCAHMS (intended). Report: Highland Council SMR and RCAHMS

Funder: Historic Scotland

Alastair Becket and Jennifer Miller – GUARD <1> (Highland Council HER).

Site Number	20
Site Name	Langwell
Type of Site	Farmstead
NMRS Number	NC40SW 18
HER Number	MHG18312
Status	Not Designated
Easting	241500
Northing	900900
Parish	Kincardine
Council	Highland

Description NC40SW 18 415 009

A farmstead comprising eight roofed and one unroofed building, one enclosure and a field-system is depicted on the 1st edition of the OS 6-inch map (Ross-shire 1881, Sheet XI). Ten roofed buildings and the fields are shown on the current edition of the OS 1:10,000 map (1990).
Information from RCAHMS (SAH), 27 September 1995.

FARMSTEAD (Post Medieval - 1560 AD to 1900 AD)

Study of historic maps notes the presence on Roy's survey of 1747-52 of a group of settlements on the banks of Strath Oykel (mainly on the south bank) at 'Langelmenoch'. This may be an early form of Langwell. Thomson's map of 1820 notes settlement at 'Lamwall'.

Site Number	21
Site Name	Alltan Leacach
Type of Site	Bowl (Stone)
NMRS Number	NC40SW 8
HER Number	MHG11895
Status	Not Designated
Easting	242000
Northing	900000
Parish	Creich
Council	Highland
Description	NC40SW 8 42 00

A large sandstone pebble, 5.6ins by 5ins by 2.5ins deep, with an oval hollow, 3.2ins by 2.9ins by 1.4ins, pecked out of one face, from Strathoykel (NC 4200) is in Dunrobin Museum. (Accession no X 62).
Information from A Henshall (TS catalogue of Dunrobin Museum, 1966).

FINDSPOT (Undated)

Site Number	22
Site Name	Strath Oykel
Type of Site	Cairn
NMRS Number	NC40SW 7
HER Number	MHG11894
Status	Not Designated
Easting	242740
Northing	900990
Parish	Creich
Council	Highland
Description	NC40SW 7 4274 0099.

At NC 4274 0099, on a low rise overlooking the flood-plain of the Oykel, is a heather-covered stone mound; probably a burial cairn. It measures 6.5m E-W by 5.5m N-S, and survives to a height of 0.9m, though it has been robbed possibly to build a shieling 7.0m to the east. On the south arc are three large slabs 0.5m high, which may be displaced kerbstones. Surveyed at 1:10 000.

Visited by OS (J B) 1 September 1976.

CAIRN (Neolithic - 4000 BC to 2401 BC)

FARMSTEAD (Undated)

Site Number	23
Site Name	Garbh Leathad
Type of Site	Clearance Cairn(s), Hut Circle
NMRS Number	NC40SW 5
HER Number	MHG11892 & 41410
Status	Not Designated
Easting	242410
Northing	901140
Parish	Creich
Council	Highland
Description	NC40SW 5 4241 0114.

At NC 42410114 situated on a false crest is a hut circle measuring 8.0m SE-NW by 6.5m within a slight earth and stone wall of 2.0m average spread, with a simple entrance in the SE. The area surrounding the hut has a few clearance heaps upon it, but the ground is still of a very stony nature. 200 metres to the N, a small area of clearance heaps and cleared ground is possibly associated with the hut. No measurable plots were noted.

Surveyed at 1:10 000

Visited by OS (J B) 22 September 1976.

CLEARANCE CAIRN (Undated)

HUT CIRCLE (Neolithic to Late Iron Age - 4000 BC to 560 AD)

Site Number	24
Site Name	An Sgreadan
Type of Site	Farmstead
NMRS Number	NC40SW 12
HER Number	MHG7405
Status	Not Designated
Easting	243200
Northing	900600
Parish	Kincardine
Council	Highland
Description	NC40SW 12 432 006

Remains of farmstead on N side of track (Welsh 1968).

Site Number	25
Site Name	Brae
Type of Site	Township
NMRS Number	NC40SW 19
HER Number	MHG18313
Status	Not Designated
Easting	243600
Northing	900900
Parish	Kincardine
Council	Highland
Description	NC40SW 19 436 009

A township comprising sixteen roofed and one unroofed building, and two enclosures is depicted on the 1st edition of the OS 6-inch map (Ross-shire 1881, Sheet XI). Seven roofed and one unroofed building of two compartments are shown on the current edition of the OS 1:10,000 map (1990).

Information from RCAHMS (SAH) 27 September 1995

TOWNSHIP (Post Medieval - 1560 AD to 1900 AD)

Site Number	26
Site Name	Strath Oykel
Type of Site	Building(s)
NMRS Number	NC40SW 13
HER Number	MHG11890
Status	Not Designated
Easting	243200
Northing	901100
Parish	Creich
Council	Highland
Description	NC40SW 13 432 011

Centred NC 432 011 Unnamed depopulation.
W Roy 1747-55.

Footings of five buildings.

Visited by OS (WDJ) 3 April 1963.

An unroofed building is depicted on the 1st edition of the OS 6-inch map (Sutherland 1879, sheet CI), but is not shown on the current edition of the OS 1:10,000 map (1990).

Information from RCAHMS (SAH) 22 September 1995

BUILDING (Undated)

The remains of at least three buildings were noted at this location. Associated with these remains were several pit features, elevated on a dry glacial ridge. These may be storage pits for potatoes or serve some other function.
See Hlink (photos)
Information supplied by Dr N Lindsay, 13/03/02 (Highland Council HER).

01391 and NC 43032 01386).

Another earth bank, up to 0.5 m high and between 2 and 3 m wide, representing a potential lynchet (Site 27.7) was visible between NC 43012 01364 and NC 42992 01366), with a corner at NC 42995 01371.

The third hut circle, likely 'B', could not be clearly identified, even with the aid of Ordnance Survey mapping, though an area of disturbed ground around NC 43120 01350 (Site 27.3), to the south of the forestry track and near an area of modern culverting showed some evidence for potential earth banks, though it was interpreted as being possibly evidence for quarrying (for the forestry track?) as there was a deep hollow in the centre of the area.

Various potential clearance cairns were also identified during the walkover survey (Sites 27.4-27.6, and perhaps 47).

An earth and stone bank (Site 27.9), between 1 and 1.5 m wide and up to 1 m high, though commonly much lower, curves from west to east between NC 43147 01494 and NC 43168 01498, with a pronounced curve at its centre around NC 43155 01498.

Site Number	27
Site Name	Strath Oykel
Type of Site	Clearance Cairn(s), Hut Circle(s)
NMRS Number	NC40SW 6
HER Number	MHG11893
Status	Not Designated
Easting	243100
Northing	901400
Parish	Creich
Council	Highland
Description	NC40SW 6 431 014.

Centred at NC 431014 on an undulating SE-facing slope is a settlement of three hut circles ('A'- 'C').

'A' is oval and measures 11.5m E-W by 10.0m internally within an ill-defined, peat-obscured wall spread to 2.5m. Part of the S, arc has slipped away. The entrance is in the E.

'B' is the best-preserved hut, and has been built onto a small hillock. It is 7.0m in diameter within a wall of 2.0m average spread widening slightly at the entrance in the E. At the entrance there is a build up of material possibly natural, suggestive of a 'causeway'.

'C' is set into the hill in the N where the arc has been obscured by earth-slip and measures 8.0m in diameter within a wall spread to 3.0m. The entrance is in the S where a section of the wall has been mutilated. The associated field system of 6 hectares consists generally of widely scattered clearance heaps with small concentrations occurring in places; occasional lynchets are visible. No measurable plots were seen.

Surveyed at 1:10 000.

Visited by OS (J B) 22 September 1976.

HUT CIRCLE (Neolithic to Late Iron Age - 4000 BC to 560 AD) (Highland Council HER)

Study of Ordnance Survey mapping (Sheet NC40SW, published 1990) indicates that the hut circles are located at approximately NC 4301 0139, 4308 0131 and 4312 0133.

Walkover survey in April 2014 identified the clear remains of two of the hut circles described above. One hut circle (Site 27.1), likely 'A', was visible on a slight rise above and north of the existing forestry track, and was centred at NC 43080 01300. It was damaged to the south by the forestry track and perhaps by earlier erosion noted above, and appeared to have an entrance to the east. It was marked by a c.2 m wide grass-covered bank and had a diameter of less than 10 m.

To the north, at NC 43012 01382 (Site 27.2) a hut circle, likely 'C', was identified with an internal diameter of c. 10-11 m, and a wall width (marked by a low earthwork bank with stones) of between 2 and 2.5 m, and a height of up to 0.5 m. Near this hut circle, a small earth bank (Site 27.8), c. 0.3 m high and 10 m long, aligned NW/SE, was visible between NC 43025

Site Number	27.1
Site Name	Strath Oykel
Type of Site	Hut Circle
NMRS Number	NC40SW 6
HER Number	MHG11893
Status	Not Designated
Easting	243078
Northing	901305
Parish	Creich
Council	Highland
Description	Element of Site 27.

During walkover survey in 2014 a hut circle, likely that recorded on the NMRS as 'A', was visible on a slight rise above and north of the existing forestry track, and was centred at NC 43078 01305. It was damaged to the south by the forestry track and perhaps by earlier erosion, and appeared to have an entrance to the east. It was marked by a c.2 m wide grass-covered bank and had a diameter of less than 10 m.

Site Number	27.2
Site Name	Strath Oykel
Type of Site	Hut Circle
NMRS Number	NC40SW 6
HER Number	MHG11893
Status	Not Designated
Easting	243012
Northing	901382
Parish	Creich

Council Highland
Description Element of Site 27.
 During walkover survey in 2014 at NC 43012 01382, a hut circle, likely 'C', was identified with an internal diameter of c. 10-11 m, and a wall width (marked by a low earthwork bank with stones) of between 2 and 2.5 m, and a height of up to 0.5 m.

Easting 243064
Northing 901342
Parish Creich
Council Highland
Description Element of Site 27. A c. 3 m diameter, and 0.3 m high, potential clearance cairn at NC 43064 01342.

Site Number 27.3
Site Name Strath Oykel
Type of Site Hut Circle (Possible); Quarrying (Possible)
NMRS Number NC40SW 6
HER Number MHG11893
Status Not Designated
Easting 243120
Northing 901350
Parish Creich
Council Highland
Description Element of Site 27. An area of disturbed ground with signs of earth banks, though these may be associated with quarrying activity for the nearby forestry track, rather than a prehistoric feature.

Site Number 27.6
Site Name Strath Oykel
Type of Site Clearance (Possible)
NMRS Number NC40SW 6
HER Number MHG11893
Status Not Designated
Easting 243031
Northing 901332
Parish Creich
Council Highland
Description Element of Site 27.
 A c. 10 m diameter area of possible clearance represented by a small irregular earth with stone mound with stones spread to its south, perhaps representing the tumble of cleared stones.

Site Number 27.4
Site Name Strath Oykel
Type of Site Clearance Cairn (Possible)
NMRS Number NC40SW 6
HER Number MHG11893
Status Not Designated
Easting 243095
Northing 901350
Parish Creich
Council Highland
Description Element of Site 27. A c. 2 m diameter potential clearance cairn at NC 43095 01350.

Site Number 27.7
Site Name Strath Oykel
Type of Site Lynchet (Possible)
NMRS Number NC40SW 6
HER Number MHG11893
Status Not Designated
Easting 242995
Northing 901371
Parish Creich
Council Highland
Description Element of Site 27. An earth bank, up to 0.5 m high and between 2 and 3 m wide, representing a potential lynchet or field boundary was visible running between NC 43012 01364 and NC 42992 01366), with a corner at NC 42995 01371.

Site Number 27.5
Site Name Strath Oykel
Type of Site Clearance Cairn (Possible)
NMRS Number NC40SW 6
HER Number MHG11893
Status Not Designated

Site Number 27.8
Site Name Strath Oykel
Type of Site Earth Bank

NMRS Number NC40SW 6
HER Number MHG11893
Status Not Designated
Easting 243025
Northing 901391
Parish Creich
Council Highland
Description Element of Site 27. Near the northern hut circle (Site 27.2), a small earth bank (Site 27.8), c. 0.3 m high and 10 m long, aligned NW/SE, was visible between NC 43025 01391 and NC 43032 01386).

Site Number 27.9
Site Name Strath Oykel
Type of Site Earth and Stone Bank; Boundary (Possible)
NMRS Number NC40SW 6
HER Number MHG11893
Status Not Designated
Easting 243155
Northing 901498
Parish Creich
Council Highland
Description Element of Site 27. An earth and stone bank, between 1 and 1.5 m wide and up to 1 m high, though commonly much lower, curves from west to east between NC 43147 01494 and NC 43168 01498, with a pronounced curve at its centre around NC 43155 01498.

Site Number 28
Site Name Tuitim Burn
Type of Site Building
NMRS Number NC40SW 10
HER Number MHG11888
Status Not Designated
Easting 243600
Northing 901600
Parish Creich
Council Highland
Description NC40SW 10 436 016
 Centred NC 435 015: Knockan (deserted)
 Roy 1747-55, 35/4
 No buildings appear to be marked on Roy's map (sheet 35/4) at this location, nor is there any

evidence of cultivation.
 An unroofed building is depicted on the 1st edition of the OS 6-inch map (Sutherland 1879, sheet CI), but it is not shown on the current edition of the OS 1:10,000 map (1990).
 Information from RCAHMS (SAH) 22 September 1995

SETTLEMENT (Undated)

Site Number 29
Site Name Tuiteam Tarbhach
Type of Site Farmstead
NMRS Number NC40SW 17
HER Number MHG18306
Status Not Designated
Easting 243500
Northing 901400
Parish Creich
Council Highland
Description NC40SW 17 435 014

A farmstead comprising one unroofed and two roofed buildings and an enclosure is depicted on the 1st edition of the OS 6-inch map (Sutherland 1879, Sheet CI). Two roofed buildings are shown on the current edition of the OS 1:10,000 map (1990).
 Information from RCAHMS (SAH) 22 September 1995

FARMSTEAD (Undated)

Site Number 30
Site Name Tuiteam Tarbhach
Type of Site Battle Site
NMRS Number NC40SW 15
HER Number MHG11891
Status Not Designated
Easting 243600
Northing 901400
Parish Creich
Council Highland
Description NC40SW 15 436 014

Tuiteam Tarbhach is said to mean 'the abundant fall', and to commemorate the slain of a skirmish between the Mackays and the MacLeods about 1400 in which the Mackays were victorious (Mackay 1896, 31-2).

Probably a defended site, though perhaps not a motte.
 Letter from R E Kirby, Dahl House, Polloch to OS, 10 December 1978.

Tuiteam Tarbhach is a turf-covered natural knoll with an early modern rectangular enclosure occupying its flattened summit. There is no evidence of artificial scarping. Visited by OS (NKB) 23 June 1980.

BATTLE SITE (Medieval - 1058 AD to 1559 AD)

Site Number	31
Site Name	Cladh a Chnocain
Type of Site	Burial Ground; Cross Slab; Chapel
NMRS Number	NC40SW 1
HER Number	MHG11887, 42208 & 42211
Status	Not Designated
Easting	243930
Northing	901500
Parish	Creich
Council	Highland
Description	NC40SW 1 4393 0150.

(NC 43930150) Cladh a Chnocain (NAT)
OS 6"map, (1967)

An old burial ground containing a pre-medieval cross slab and presumably the site of the 'kirk' mentioned by Pont as existing at Knockan about 1600. The slab of schist, covers a modern grave in the NW corner of the burial ground and measures 4' by 1'7". The incised cross, 3' long, is of the plain, long-shafted, Celtic type with expanded terminals and hollowed 'armpits' (Macfarlane 1906, 546, 569; RCAHMS 1911, 34, No. 93).

There is no trace and no local knowledge of a church or chapel within Cladh a'Chnocain (name verified), which is still in use.

The dressed cross slab as described by RCAHMS (RCAHMS 1911) lies loose on the grave of John Thomson (died 1887), the cross being on the underside.

Surveyed at 1:10 000.

Visited by OS (J B) 22 September 1976.

The burial ground is shown as an enclosure on the 1st edition of the OS 6-inch map (Sutherland 1878, Sheet CI) and is similarly depicted on the current edition of the OS 1:10,000 map (1990).

Information from RCAHMS (SAH) 27 November 1995

CHAPEL (Early Medieval to 19th Century - 561 AD to 1900 AD)
CEMETERY (Undated)
CROSS SLAB (Undated)

Site Number	32
Site Name	Tuiteam Tarbhach
Type of Site	Road; Quarry (Possible)
NMRS Number	
HER Number	

Status	Not Designated
Easting	243064
Northing	901136
Parish	Creich
Council	Highland
Description	A road or track (still present on modern 21st century mapping) is shown running from south-west to north-east to the north of 'Tuiteam Tarbhach' on the Ordnance Survey 1:10,560 maps of 1879 and 1908 (Sutherland Sheet CI). A small area of apparent quarrying also appears on the map. It is possible that this road forms part of the road that 'runs through the parish from Bonar to within a few miles of the manse of Assynt', mentioned in the New Statistical Account (NSA 1845, 21). During walkover survey in April 2014 the area around NC 43064 01136 was found to appear disturbed, as if by quarrying.

Site Number	33
Site Name	Allt a' Choire Bhuidhe
Type of Site	Fank; Sheepfold
NMRS Number	
HER Number	
Status	Not Designated
Easting	236022
Northing	905866
Parish	Creich
Council	Highland
Description	A sheepfold (still present on modern 21st century mapping) is labelled as a 'Fank' on the Ordnance Survey 1:10,560 maps of 1879 and 1906 (Sutherland Sheet C). It is now termed a sheepfold. During walkover survey in April 2014 the sheepfold was found to be still largely upright, with walls up to 1.5 m in height and 0.8 m in width though fallen in areas. It appears that accesses have been blocked in the past; possible entrances may have existed to the west, north and south-east.

Site Number	34
Site Name	Tuiteam Tarbhach
Type of Site	Settlement
NMRS Number	
HER Number	
Status	Not Designated
Easting	243500
Northing	901500

Parish Creich
Council Highland
Description Gordon's map of c.1636-52 depicts 'Tuytmintervach'. Buildings are shown on Forbes map of 1820 at 'Tuitemarravach' and on Thomson's map of 1820 at 'Tuilimarravach', likely the settlement later called Tuiteam Tarbhach.

Site Number 35
Site Name DBA and walkover survey - Balnagown Estate, Creich
Type of Site Desk-Based Assessment; Walkover
NMRS Number
HER Number EHG3574
Status Event
Easting 241000
Northing 904000
Parish Creich
Council Highland
Description A desk-based and walk-over survey was carried out ahead of a new native tree-planting scheme at Duchally and Rosehall, Balnagown Estate, Creich, Sutherland. 31 features were recorded over five areas surveyed. These appear to be post-medieval but cannot be dated accurately without excavation. They occupy small areas of slightly favoured ground which would have been equally attractive to prehistoric settlers as to 18th century tenants. Most were probably when the small tenants were removed to make way for sheep in 1770-1790. The only sites clearly dating to the period of sheep farming are five sheep shelters, all of which are on the original Balnagown land. No such features have been noted on the Rosehall side of the Cassley, probably reflecting a lesser emphasis on sheep. Recommendations have been made for safeguarding these features within the scheme (Dagg 2011).

Site Number 36
Site Name Carn Beag (Rosehall Farm)
Type of Site Field System
NMRS Number
HER Number
Status Not Designated
Easting 243917
Northing 901783
Parish Creich
Council Highland
Description Survey by Dagg in 2011 recorded 'A group of 4-5 spread moss-covered mounds on a steep south-facing slope form the SE edge of a possible cultivation area, defined by stone-free grassy ground. This has the appearance of a prehistoric field system and although no hut circles were located east of the stream, there are recorded sites to the west of the stream with which this site may be associated' (Dagg 2011, 18-19).

Site Number 37
Site Name Carn Beag (Rosehall Farm)
Type of Site Farmstead, Structure
NMRS Number
HER Number
Status Not Designated
Easting 243945
Northing 901525
Parish Creich
Council Highland
Description Survey by Dagg in 2011 recorded 'A possible building, defined by heather-covered banking, on a levelled platform, its north side dug into the bank, Aligned E-W and measuring 10m by 5m. A bank extends east from the building to NC 43984 01524 and west to meet the stream at NC 43953 01532. South of this, a level platform aligned N-S may be a second building' (Dagg 2011, 20).

Site Number 38
Site Name Carn Beag (Rosehall Farm)
Type of Site Enclosure
NMRS Number
HER Number
Status Not Designated
Easting 243926
Northing 901515
Parish Creich
Council Highland
Description Survey by Dagg in 2011 recorded 'An approximately square enclosure, measuring 20m across and defined by low turf banks. The south part of the enclosure appears to be levelled up. A modern fence cuts across the north part of the enclosure' (Dagg 2011, 20).

Site Number 39
Site Name Carn Beag (Rosehall Farm)
Type of Site Turf Dykes
NMRS Number
HER Number
Status Not Designated
Easting 243900
Northing 901518
Parish Creich

Council Highland

Description Survey by Dagg in 2011 recorded 'Turf dykes from NC 43900 01518 to NC 43925 01456. A turf and rubble dyke runs south from the modern fence line, curving SE to the road. From a junction at NC 43913 01468 a second, well-defined dyke runs west to the road' (Dagg 2011, 20).

Site Number 40

Site Name Carn Beag (Rosehall Farm)

Type of Site Building, farmstead

NMRS Number

HER Number

Status Not Designated

Easting 244040

Northing 901504

Parish Creich

Council Highland

Description Survey by Dagg in 2011 recorded 'Building, farmstead at NC 44040 01504. Low footings of a building occupying a level spur, measuring 20m in length and 5m in width. The building is attached to the NE corner of an enclosure, defined by low turf and rubble dykes, which runs down to the road' (Dagg 2011, 20).

Site Number 41

Site Name Carn Beag (Rosehall Farm)

Type of Site Trackway

NMRS Number

HER Number

Status Not Designated

Easting 244040

Northing 901504

Parish Creich

Council Highland

Description Trackway from NC 44040 01504 to NC 45390 01450
Survey by Dagg in 2011 recorded 'A worn path, with no built features, can be traced running approximately parallel to the present road, until it drops to join or cross the road at its east end' (Dagg 2011, 20).

Site Number 42

Site Name Caplich Woodlands (WGS)

Type of Site Desk Based Assessment; Field Survey/Walkover Survey

NMRS Number

HER Number	EHG 354
Status	Event
Easting	234980
Northing	904190
Parish	Creich
Council	Highland
Description	Centred NC 3498 0419 (1890m by 2818m) A desk-based assessment and walkover survey was undertaken of Caplich Woodlands in 1998 (Harden 1998).

Site Number	43
Site Name	Carn Beag (Tutim Burn)
Type of Site	Sheep Shelter
NMRS Number	
HER Number	
Status	Not Designated
Easting	241970
Northing	902960
Parish	Creich
Council	Sutherland
Description	Sheep Shelter at NC 41970 02960 Survey by Dagg in 2011 recorded a 'Drystone circular structure with wings extending north and south. This is located some distance from the nearest watercourse and is unlikely to be occupying a former shieling area' (Dagg 2011, 18).

Site Number	44
Site Name	Site of Chapel and Graveyard, Achness
Type of Site	Chapel
NMRS Number	NC40SE 1
HER Number	MHG11875
Status	Non-Statutory Site of National Importance
Easting	246800
Northing	902800
Parish	Creich
Council	Highland
Description	CHAPEL (Norse to 19th Century - 1058 AD to 1900 AD) See also: NC40SE0004 Carved Stone Ball J Aitken : 26/01/03 -----

Site Number	NC40SE 1 468 028.
Status	----- 'Sutherland Monumental Inscriptions', pre 1855 Monumental inscription survey completed by A.S.Cowper & I.Ross. The survey may not include inscription information after 1855 and each inscription transcribed does not give the full details that appear on the stones, abbreviations used. Some omissions and inaccuracies. First published 1989, reprinted 1991, 1996 & 1999. J Aitken : 20/12/02 -----
Description	A small chapel now in ruins adjoins Achness burial ground (NC 46830283) which is still in use, although it was considered ancient in 1874. Name Book 1874.

Munro: adjoining is a small chapel now in ruins & within a hundred yards of the broch of Achness, now much broken down.

No remains of a chapel were seen in the vicinity of the graveyard. Visited by OS (R D L) 27 May 1963.

Sources and further reading
--- Text/Publication/Article: Munro, R. 1907. 'Notes on ornamental stone balls, with reference to two specimens presented to the National Museum by Mr Andrew Urquhart', Proc Soc Antiq Scot Vol. 41 1906-7, p.290-300. Proc Soc Antiq Scot. 290-300. 290.
--- Text/Publication/Monograph: A.S.Cowper & I.Ross. 1999. Sutherland Monumental Inscriptions, pre 1855.
--- Text/Publication/Volume: Donald Sage. 1975. Memorabilia Domestica, Parish Life in the North of Scotland. 197.
--- Image/Photograph(s): Highland Council Archaeology Unit. HCAU Slide Collection Sheet 9. Colour slide. . Digital (scanned). 191.
--- Image/Photograph(s): Highland Council Archaeology Unit. HCAU Slide Collection Sheet 11. Colour slide. . Digital (scanned). 201.
--- Image/Photograph(s): Highland Council Archaeology Unit. HCAU Slide Collection Sheet 12. Colour slide. . Digital (scanned). 232.
--- Text/Publication/Volume: Name Book (County). Object Name Books of the Ordnance Survey. Book No. 6, 4.

(Highland Council HER)

Site Number	45
Site Name	Clais Mor
Type of Site	Earthwork (possible)
NMRS Number	
HER Number	
Status	Not Designated
Easting	239125
Northing	903550
Parish	Creich
Council	Highland
Description	A large circular feature, which appears to be an earthwork rather than a walled structure, is visible on aerial photographs, e.g. Sortie 58/0801; Frame 3143, dated 1951 and Sortie CPE/UK/0185; frame 1073, dated 1946. It is located near the confluence of Clais Mor with Allt na Claise Moire. It is not visible on late 20th century aerial photographic images (e.g. Sortie OS /86/134; frame 011), having apparently been removed by plantation furrows.

During walkover survey in April 2014 no sign was found of this feature; the area was under plantation.

Northing	905986
Parish	Creich
Council	Highland
Description	There is a small walkers' airn, measuring c. 1m in diameter and 0.5 m in height, at the summit of Beinn an Eoin Bheag.

Site Number	46
Site Name	Strath Oykel
Type of Site	Quarry
NMRS Number	
HER Number	
Status	Not Designated
Easting	243170
Northing	901495
Parish	Creich
Council	Highland
Description	To the north-west of the forestry track, and perhaps associated with it, there is an extensive rectangular area of quarrying, between 2 and 3 m in depth and measuring c. 6 m NW/SE by 3m NE/SW.

Site Number	47
Site Name	Strath Oykel
Type of Site	Clearance Cairn (Possible)
NMRS Number	NC40SW 6
HER Number	MHG11893
Status	Not Designated
Easting	243200
Northing	901592
Parish	Creich
Council	Highland
Description	Likely an element of Site 27. An earth and stone mound, measuring 3 m in diameter and 0.5 m high, a possible clearance cairn.

Site Number	48
Site Name	Beinn an Eoin Bheag
Type of Site	Walker's Cairn
NMRS Number	
HER Number	
Status	Not Designated
Easting	237677

Technical Appendix 9.2: Plate Photography



Plate 1: Strath Oykel hut circle (Site 27.1) from north-west



Plate 3: Northern Strath Oykel hut circle (Site 27.2) from west



Plate 2: Damage to south side of Strath Oykel hut circle (Site 27.1)



Plate 4: Possible lynchet at Strath Oykel (Site 27.7) from south-east



Plate 5: Possible former location of Strath Oykel hut circle (Site 27.3) from west



Plate 6: Bank at Strath Oykel (Site 27.9) from east



Plate 7: View across south of proposed turbine area from north of access track



Plate 8: View over site from summit of Beinn an Eoin Bheag (loch lies to east; woodland to west, with edges of plate near south)



Plate 9: Sheepfold at Allt a' Choire Bhuidhe (Site 33) from west



Plate 10: Walkers' cairn on summit of Beinn an Eoin Bheag (Site 48) from north



Plate 12: Langwell, fort and dun 500 m WSW of (Site 13) from the north-east



Plate 11: Brae Doune Foot Bridge over River Oykel (Site 8) from proposed access, looking towards the east



Plate 13: Allt Eileag, chambered cairn 800 m SE of Cnoc Chaornaidh (Site 18) from the north-west



Plate 14: Strathseasgaich, chambered cairn 700 m SW of (Site 11) from the north-west



Plate 15: Cnoc Chaornaidh, chambered cairn 570 m SW of (Site 14) from the west